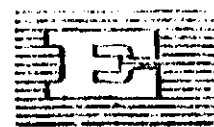


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ECONOMIC COMMISSION FOR LATIN AMERICA
Seventh session
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15 May 1957 ✓

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Central American Economic Co-operation Committee

CENTRAL AMERICAN ECONOMIC INTEGRATION:
DEVELOPMENT AND PROSPECTS

Study prepared by the secretariat



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INTRODUCTION

The economic integration programme sponsored by the Central American Economic Co-operation Committee of the Economic Commission for Latin America was inaugurated pursuant to resolution 9 (IV) adopted in 1951 during the Commission's fourth session.

This resolution, submitted by the delegations of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, expressed the interest of these Governments "in the development of agricultural and industrial production and of transportation systems in their respective countries so as to promote the integration of their economies and the expansion of markets by the exchange of their products, the co-ordination of their development programmes and the establishment of enterprises in which all or some of these countries have an interest".

After the secretariat had prepared the preliminary studies in 1951 and 1952, the Governments of the five Central American republics were consulted and the first session of the Committee provided for in resolution 9 (IV) was convened by mutual agreement. On the invitation of the Government of Honduras, the session was held at Tegucigalpa from 23 to 28 August 1952. As a basis for discussion the secretariat submitted a Preliminary report on economic integration and reciprocity in Central America (E/CN.12/AC.17/3) together with notes on Economic integration and technological co-operation (E/CN.12/AC.17/4), Standardization of customs tariff nomenclature (E/CN.12/AC.17/5) and Transport in Central America (E/CN.12/AC.17/6).

Since that session, at which it was decided to undertake a programme for the gradual and progressive integration of the Central American economies on the basis of co-operation and reciprocity among the five Governments, a series of studies has been made on different aspects of Central American economic integration. Some have dealt with over-all problems such as transport, energy, technological research, vocational training and financing of development, while others have covered specific industries such as pulp and paper, the livestock and dairy industries, the textile industry, etc. Work was also started on tariff nomenclature, customs regulations and public administration. In all these activities the secretariat has complied with the instructions set forth in the Committee's resolutions, while the Committee

in turn has requested the co-operation of the United Nations Expanded Programme of Technical Assistance in order to obtain the services of various experts in different fields whenever it has considered such co-operation advisable. In addition to the assistance provided by the Expanded Programme of Technical Assistance, the Department of Economic and Social Affairs of the United Nations and, in its own particular field, the Inter-American Statistical Institute have been particularly helpful.

The review of the Committee's activities during its two and a half years existence which was made at the extraordinary session, held at San Salvador in May 1955, showed that considerable progress had been achieved in many of the fields which had been regarded from the outset as important for the economic integration of Central America.^{1/} The status and prospects of transport in Central America were surveyed quite extensively; the preparation of the Uniform Central American Customs Nomenclature and of its Coding Manual was completed; a study was made of inter-Central American trade and of trade policy, particularly in connexion with the expansion of a free trade area in the region; a preliminary examination was made of the situation and of requirements with regard to the development of electric energy; the forestry resources of the region were surveyed and the possibilities of establishing a pulp and paper industry as well as other forestry industries were investigated; an appraisal was made of the livestock situation in Central America with a view to co-ordinating its development and establishing possible co-operation on projects suitable for integration; the Advanced School of Public Administration for Central America was created and started its activities early in 1954; and a preliminary study was made of some problems relating to the financing of development, particularly those connected with the securities market and the possibility of establishing a Central American development corporation or some other organization with similar

^{1/} See the following reports of the Committee: first session (E/CN.12/AC.17/24); report covering the period from 28 August 1952 to 16 October 1953 (E/CN.12/CCE/1); and report covering the period 12 October 1953 to 9 May 1955 (E/CN.12/CCE/29).

functions.^{2/}

During the extraordinary session, several important decisions were reached. Special mention should be made of the Committee's decisions to establish a Central American Research Institute for Industry along the lines suggested by a mission of experts of the Technical Assistance Administration^{3/}; to proceed with the work on the pulp and paper industry and to prepare a specific development project to be implemented in Honduras pursuant to the recommendations of the mission which prepared the preliminary study; to establish a Statistical Co-ordination Sub-Committee; to continue the work on tariff nomenclature and customs regulations; to request a study on standard weights and measures in Central America and to widen the terms of reference of the Central American Trade Sub-Committee, established at the second session so that it could be called upon to prepare a preliminary draft multilateral agreement on free trade in Central America and other similar studies.^{4/}

However, owing to the time which had elapsed since the first session and considering the advisability of maintaining the greatest possible equilibrium at all times between institutional projects and those dealing with specific production activities, the Committee, when reviewing the general

2/ See inter alia the following documents: Transportation in Central America (E/CN.12/356), United Nations Publication, Sales N°:1953.VIII 2; Central American Standard Customs Nomenclature (E/CN.12/420), United Nations Publication, Sales N°: 1955, II.G.3; and reports of the first and second sessions of the Central American Trade Sub-Committee (E/CN.12/CCE/SC.1/11 and 18); Analysis and prospects of Inter-Central American trade, 1934-38 to 1946-52 (E/CN.12/CCE/10); Trade policy and free trade in Central America (E/CN.12/CCE/11); Preliminary report on electrification in Central America (ST/TAA/S/Central America/R.1); Informe sobre la industria ganadera (FAO/55/7/4320); Note by the Secretariat on the proposal to set up an Advanced School of Public Administration for Central America (E/CN.12/AC.17/31) and Report by the Director of the School (ESAPAC/256/IG.21); and Preliminary report on the problems of financing economic development and integration in Central America. (E/CN.12/AC.17/30).

3/ Informe sobre la organización de un Instituto Centroamericano de Investigación y Tecnología Industrial (ST/TAA/J/Central America/R.2).

4/ See the Committee's progress report covering the period from 17 October 1953 to 9 May 1955 (E/CN.12/CCE/29).

status of the programme at the extraordinary session in May 1955, decided, in resolution 8 (CCE), to reaffirm its interest, in regard to the Central American economic integration programme as a whole, in the maintenance of a proper relationship between the basic institutional projects and those dealing with the development of productive activities, and in the establishment of new industries suited to the Central American region. The Committee further requested the secretariat, in view of the changes which had taken place in the Central American economies following the establishment of the priorities listed in resolution 2 (AC.17) and taking into account the ideas expressed at the current session, to evaluate these priorities and to present to the Committee at its next session any additions to or changes in the list which might seem advisable for the early attainment of the objectives of the programme.

This resolution emerged from the general debate on the economic integration programme, in which different points of view were put forward ^{5/}. In view of the fact that, on the one hand, institutional projects producing long-term advantages and requiring Government action had been carried out, for example in connexion with education, transport, tariff nomenclature etc., and that, on the other hand, some industrial projects of shorter duration had been examined in which private enterprise might play a role, it was considered necessary to strike a balance between the two types of projects. In this connexion it was apparent that projects requiring mainly Government action also required the provision of Government capital which, generally speaking, could not be recovered in a short time and that, unless an adequate balance was maintained between Government projects and those which relied mainly on private enterprise, and which might also be financed by private enterprise or, in part, by recoverable public investment, the demand for capital might weigh so heavily on the public sector that there would be an excessive drain on the funds allocated for national development programmes. In addition, it was stressed that, after the preparation of the list of priorities, economic conditions in these countries had changed and that some industries not originally considered suitable for integration might quite possibly now be included. It was further noted that long-term institutional projects were valuable for economic development, but that they should be accompanied by

^{5/} See the summary record of the first session (E/CN.12/CCE/SR.2), 4 May 1955.

others designed to produce specific industrial results and to assist in providing a wider basis for the institutional programmes themselves.

It was also recalled that the problem had been originally discussed by the Committee and stress was laid on the fact that the activities already undertaken in connexion with the standardization of tariff nomenclature, transport, energy, technological research and public administration could not have been postponed without prejudicing the establishment of a favourable climate for the development of new private activities. Some of the institutional projects are particularly useful in promoting private enterprise; conversely, some production projects call for legislative and possibly financial action by Governments.

On the basis of this background information, the secretariat submitted a report at the third session of the Committee, held at Managua, Nicaragua, in January 1956, reviewing the status of the economic integration programme and the main changes in the Central American economy which affected the programme; the secretariat also reappraised the projects as a whole and the relevant problems with a view to suggesting some additional industrial integration possibilities not originally considered or considered only very tentatively. The industrial expert of the programme, appointed by the United Nations Technical Assistance Administration, participated in the preparation of parts of the report.

The third session of the Committee received the report with interest and resolved in future to concentrate more on certain specific industrial aspects and on a policy of establishing a Central American free trade zone on the basis of an ad hoc multilateral treaty.^{6/} In accordance with the resolutions adopted at Managua during the first half of 1956, a group of experts of the countries represented in the Committee prepared a preliminary draft treaty; another group outlined a system of Central American integrated industries in order to facilitate the establishment or expansion of specific industrial activities on the basis of a common market, and the Central American Industrial Initiatives Commission, set up by the Committee with two representatives (one representing private enterprise) from each country held its first meeting.

^{6/} See progress report of the third session of the Committee (E/CN.12/CCE/64) covering the period from 10 May 1955 to 29 January 1956.

In the present report, commended by the Committee,^{7/} consideration is given to the discussions and decisions of the Managua session as well as to the work carried out from January to July 1956. In addition, much of the material presented in the preliminary version has been revised and other information has been added which was not available at the end of 1955. The annex included at the end of the report contains all the resolutions adopted by the Committee since its first session held in August 1952.

^{7/} See resolution 27 (CCE).

Chapter I

FUNDAMENTALS AND REQUIREMENTS OF ECONOMIC INTEGRATION IN CENTRAL AMERICA

1. Some characteristics of the Central American economy

In a report issued by the secretariat in 1952, which served the Committee as a basic document when it adopted the Central American programme of economic integration and reciprocity ^{1/}, stress was laid on the fact that such a programme was warranted by the existence of national economies resting on narrow economic foundations and by the desirability - in view of the fact that the five republics presented certain similarities and were of the same historical origin - of attempting to direct the economic development of these countries in such a way that there would be the minimum duplication of activities and that as wide a market as possible would be created. A common Central American market thus constitute a basis for the initiation of productive activities which might be impossible within a more restricted economic pattern.

The level of economic development which each Central American country could attain by itself is limited by geographic conditions, by the unequal distribution of the population among the five countries and by their low income level.

The total area of Central America is 440,865 km², of which only 4 million hectares, or about 9 per cent of the total, are cultivated; 4.5 million hectares are permanent pasture and grasslands; 22.8 million hectares are woodlands and 6.6 million hectares are built-up, unproductive or miscellaneous areas ^{2/}. The potential productive area at present unutilized is

1/ See Preliminary report on economic integration and reciprocity in Central America (E/CN.12/AC.17/3), chapter II "Favourable factors for a policy of economic integration in Central America".

2/ See Food and Agriculture Organization, Yearbook of Food and Agricultural Statistics, 1955.

estimated at about 6 million hectares.

There are also mineral resources as yet not fully surveyed - mainly lead, copper, zinc and precious metals - and mining operations have begun on a small-scale; in recent years, prospecting for oil has begun in several Central American countries. The hydro-electric potential has been estimated tentatively at about 2 million kW which is approximately 20 times the total installed hydro-electric capacity of Central America. The coasts, extending almost 2,000 km on the Atlantic and about 1,800 km on the Pacific side,^{3/} seem to offer some prospects for the development of fisheries.

The population, which in 1954 numbered 9 million, is densest in the highlands and the more developed areas; it is not distributed according to the resources available in the various areas of one country or even of several countries. At the national level, the number of inhabitants per km² ranges from as little as 8 in Nicaragua to as much as 102 in El Salvador, with intermediate figures of 29 in Guatemala, 18 in Costa Rica and 14 in Honduras. The differences become still more marked when one compares specific areas in Central America. In some, overpopulation is evident even when actual and potential natural resources are taken into account, whereas in others there are untapped agricultural, forest and mining resources. To the extent that migration can take place within each country and among the Central American nations, which would relieve population pressure in areas with a high ratio of inhabitants to known resources and open up other areas with potential but unexploited wealth, the effort required to accelerate the rate of economic development for the whole of Central America could be reduced.

At present, when a marked disparity exists between available resources in the various production areas and their population, under-employment and even seasonal unemployment are characteristic features of Central America. Employment in low-productivity occupations - mainly primary occupations - is also characteristic.

On the other hand, the rate of population growth is extraordinarily high and is showing a tendency to accelerate. The highest gross rate of

^{3/} Estimated on the basis of information provided by the statistical bureaux of the Central American countries.

growth (1954) is in Costa Rica and El Salvador, where it has reached 38.6 and 33.1 per mil; Guatemala, Nicaragua and Honduras come next with 32.8, 31.7, and 28.1 respectively.^{4/} These are among the highest rates of growth in the world.

A rapidly growing population together with the scanty utilization of domestic savings for productive national investment has created production patterns in which the primary forms predominate while the development of industries and services is limited. This shows that, given the present restricted size of domestic and local markets, the Central American economy has little capacity to absorb the population employed in low-productivity occupations or to make the high capital-intensive investments which require wide markets and efficient and economical transport facilities.

These circumstances are clearly reflected in the structure of the population by sectors of activity. In 1950, 69 per cent of the economically active population was employed in agriculture,^{5/} only 10 per cent in manufacturing, 4.6 per cent in trade and 13.4 per cent in other services including transport and communications. Mining, which is in its infancy in Central America, employed only 0.3 per cent; power and other urban services employed 0.2 per cent and the building industry, which has become increasingly active in recent years, employed 2.5 per cent. Although these aggregate figures reflect the over-all structure of the Central American economy, they do not reveal the marked differences existing among individual countries or between the different areas or population sectors in a given country. Agriculture absorbs 83 per cent of Honduras' active population, while the proportion is only 54.7 per cent in Costa Rica, 63.2 in El Salvador and 67.7 per cent in Nicaragua and 68.2 per cent in Guatemala. The manufacturing industry employed 6 per cent of the economically active population in Honduras and from 11 to 11.5 per cent in the other countries.

Income generated is low as a result of the limitations to growth imposed

^{4/} Estimated on the basis of United Nations Demographic Yearbook, 1955.

^{5/} Including agriculture, forestry, hunting and fishing.

inter alia by lack of capital, technique and particularly markets, as well as by the instability of foreign markets. According to estimates, in 1950 Central America's gross income totalled about 1,400 million dollars, or about 175 dollars per capita. These figures do not reflect the marked disparity in productivity and income levels in the different countries and individual economic sectors of each country. According to available data Guatemala's gross income in 1950 amounted to 467 million dollars as compared with 338 million in El Salvador, 240 million in Honduras, 203 million in Costa Rica and 147 million in Nicaragua. This is equivalent to an average per capita income of about 245 dollars in Costa Rica, 182 in El Salvador, 167 in Guatemala, 159 in Honduras and 139 in Nicaragua. It should be borne in mind, however, that any comparison between the incomes of various countries may be distorted not only by the real level of income but also by the various degrees of accuracy of the corresponding figures. In the case of Central America, this second factor may play an important role in the comparison.

The preceding figures show that Central America's population has a limited purchasing power. The distribution of income, which is concentrated in a relatively small sector of the population, reduces the market available for domestic production still further. According to very tentative estimates, the annual per capita income of 92 per cent of El Salvador's population is about 95 dollars ^{6/}. In Guatemala the estimated per capita income of 92 per cent of the population is little more than 80 dollars^{7/}; while in Guatemala, according to an International Bank mission, the annual per capita income of more than 90 per cent of the population is probably less than 100 dollars. Within this range of income, the consumption level of manufactured goods and services is negligible or nil. Furthermore, the consumption of the population in the higher income brackets is not limited by income factors and therefore its purchases of national commodities do not increase as its income increases. All this sets a consumer pattern which is unfavourable to the development of manufactured goods in Central America whether on a national or

^{6/} United Nations, Technical Assistance mission.

^{7/} J.H. Adler et al. Las finanzas públicas y el desarrollo económico de Guatemala, México, Fondo de Cultura Económica, 1952, page 96.

local scale. The natural and artificial limitations of the market constitute a third and equally important factor.

As a general rule, apart from a relatively widespread handicrafts industry, Central America has only consumer goods industries and almost the only capital goods industry is the cement industry, the output capacity of which tends to approximate total regional consumption. The limitations and sub-divisions of the market have hampered the growth and economic operation even of the smaller industries with low capital requirements. In the textile industry, which is one of the most developed in Central America, 61 per cent of the total volume of consumption is covered by imports and only 39 per cent by domestic production. At the same time there is excess production capacity in some countries and low rates of operation. An improvement in the transport and other basic services such as energy, which is usually scarce and expensive, as well as a greater volume of free trade among the individual countries would provide a wider basis for more intensive industrial development. The same holds true, in varying degrees, for the other consumer goods industries.

In view of the incipient stage of industrial development and the low agricultural productivity for most crops, the level of economic activity depends on exports, which are thus the main stimulus for development. The general export level depends in turn on market conditions for a very small number of commodities, mainly coffee, bananas, and to a lesser extent, cotton and cacao. All this makes the economy very instable and, despite the continuous growth in both the quantum and the value of exports, it imposes limitations on the capacity of the system to absorb manpower employed in the sectors with lowest productivity and to keep pace with the rapid population growth. In 1954, exports of these four commodities accounted for 89.2 per cent of the total value of Central America's exports - 420 million dollars at current prices - while coffee alone represented 56.9 per cent. Dependence on a single product is more patent in the case of El Salvador, whose coffee exports in 1954 represented about 88 per cent of the value of total exports, in Guatemala, where coffee exports accounted for 67 per cent, and in Honduras, where banana exports constituted 60 per cent of the aggregate.

Exports from Nicaragua and Costa Rica are somewhat more diversified but even in these two countries coffee represents 46 and 42 per cent respectively of the value of total exports.

The breakdown of imports is typical of countries undergoing a process of accelerated economic development after the initial stage has been overcome. Total imports, valued at 378 million dollars at current prices (1954), consisted of 193 million dollars worth of consumer goods, or 51 per cent of total imports, 110 million dollars worth of capital goods (29 per cent), 45 million dollars worth of raw materials (12 per cent) and 30 million dollars worth of fuels and lubricants (8 per cent). This import pattern has tended to change in the last ten years - with a smaller proportion spent on consumer goods and a larger amount on capital goods - and this trend may continue in the same direction to the extent that a relatively more rapid increase in manufactured goods and new primary activities for domestic consumption is possible through the widening and strengthening of the market.

2. Integration requirements

Apart from the general fundamental reasons for the economic integration of Central America, particularly favourable circumstances have arisen in recent years for the development of such a programme. One is the growing awareness of the need to promote economic development by a deliberate effort on the part of Governments, with the co-operation of private enterprise, in order to raise productivity and to meet the economic and social needs of the population on an increasing scale, thus raising the standard of living. Another favourable factor is the foreign trade situation of the Central American republics particularly in regard to the export prices of their staple products; indeed the position of Central America's main export commodities has been even more favourable than that of most of Latin America. Again, although owing to the nature of its economy Central America has not been an area of concentrated foreign investment in recent years, domestic savings have been supplemented by funds obtained from international credit agencies which have helped to finance hydro-electric projects and road-building and to develop agriculture.

Under these conditions and thanks to the general co-operation extended

/in all

in all fields by the international organizations through their technical staff and under the Expanded Programme of Technical Assistance - efforts which in conjunction with many others have facilitated the Governments' technical, economic and administrative planning - the economic integration programme has developed in such a way that it has been possible not only to draw up long-term plans but also to make preparations which will bear fruit in due course since they clear the way for agricultural and industrial development. The firm desire of the Central American Governments for integration is apparent not only from the resolutions of the Economic Cooperation Committee but also from a series of governmental measures, such as the free-trade agreements signed by several Governments, which extend and strengthen the market basis required for greater development in agriculture, industry and transport within the framework of integration.

When the economic integration and reciprocity policy for Central America was first presented in 1952, certain requirements were deemed indispensable for the execution of the programme. These requirements, which were thoroughly dealt with in the report submitted by the secretariat to the first session of the Committee^{8/}, merit a brief review.

The first and perhaps the most important requirement is that the five republics should develop a trade policy to promote free trade in regional commodities. Economic integration, with the consequent establishment of new productive activities intended for the regional market as a whole, would be illogical if the commodities produced did not have ready access to the markets of the other countries in the area. The expansion of the market is a prerequisite for expanded production particularly for the production of certain commodities which require a minimum economic scale of manufacture. There are in fact a number of obstacles in the way of market expansion such as transport costs, lack of storage facilities, differences in the legislation of each country and the trade barriers set up against competition which some economic groups naturally always wish to maintain.

8/ Ibid, chapter III: Alcance y requisitos de una política de integración y reciprocidad económica (The scope and requisites of a policy of economic integration and reciprocity).

Even if such obstacles were eliminated, however, an equally important impediment would still remain, namely, the customs tariffs of each country. The system of privileges traditionally included in the "Central American clause" in the trade agreements between these and other countries, the preferential or free treatment granted on a unilateral basis by some Central American countries to the rest of the region, and, since 1951, the free trade and integration agreements signed by El Salvador, on the one hand, and the other four republics on the other, provide a basis for a trade policy which is consistent with the idea of economic integration.^{2/}

The mere existence of this trade policy and the conclusion of bilateral or multilateral agreements are not enough to promote integration. Integration requires long-term, positive planning, a thorough appraisal of resources and the development of new activities, since the incentives provided by tariff reductions are not always strong enough, however permanent they may be, to stimulate the flow of the necessary investments or to increase existing investments.

So far as tariff policy is concerned, each Central American country must gradually level off and rationalize the tariffs applying to its trade with the rest of the world. As long as there are significant tariff discrepancies in regard to the treatment accorded to foreign commodities similar to, or which compete with, the products of free Central American trade, or disparities in relation to certain foreign raw materials which constitute important cost elements for Central American products, dangerous commodity trends may appear which may restrict the regional market for the operations envisaged under an integration plan.

To undertake activities on a scale large enough to supply (with one or more new or existing and ideally situated factories) the whole Central American market, even with the advantage of free regional trade, might, as a result of inadequate co-ordination, lead, in other parts of the region, to

^{2/} See Política comercial y libre comercio en Centroamérica (E/CN.12/CCE/12), chapters IV and V.

competitive and unnecessary activities that limit the market. Unless the export market is large enough to absorb any surplus of aggregate production over aggregate consumption in Central America, it would be uneconomical and contrary to the concept of economic integration to promote the establishment within the same economic radius of supply of enterprises and factories competing with those operating under the integration programme. On the other hand, there is also the danger that the enterprises protected under the integration programme might not develop in such a way as to satisfy consumer needs fully both as to prices and quality; in this case some kind of regional control or vigilance might be required to ensure that the enterprises of the programme operated according to the objectives pursued by the five countries.

Another fundamental requirement for an integration programme, or any other kind of development programme, is that technical improvements should be continually introduced in established industries and when planning new enterprises. This does not necessarily imply a preference for the establishment of industries of high capital intensity - though this may be true in some cases - but it does imply that efforts should be made to obtain the highest productivity of capital, in addition to ensuring the steady improvement of labour productivity. The concentration of private and official resources in Central America in scientific and technological research as well as in programmes for improving productivity as a whole, and for training labour in particular, is indispensable in an integration programme.

The availability of adequate and cheap transport and energy, is fundamental to economic growth in all parts of the world. In Central America, which has lagged behind somewhat in both sectors and where cost conditions are exceptionally unfavourable, the availability of transport and energy would not only result in savings for all existing enterprises, and consequently in a net profit for the over-all economy of the region, but would also mean a substantial expansion of the market. Experts of the United Nations Technical Assistance Administration have made preliminary studies on the problems affecting the development of transport and energy, while a series of specific projects have been initiated in the five republics with a view to creating the wider market basis required for integration.

The financial aspect of economic integration, despite the fact that this

/problem also

problem also exists independently of an integration programme, makes it necessary for the five countries to co-operate through their central banks and various banking institutions. Many of the new activities of the integration programme may require joint financing, with private or public capital or both, by the five countries, and occasional contributions from abroad. Some effective machinery must be devised to ensure this co-operation. In this context, it is interesting to note that the central banks of the region have held three meetings at which consideration was given, inter alia, to means for promoting the development of the securities market on the basis of reciprocity and for holding consultations with a view to the accumulation of financial resources and the utilization of savings in Central America.

3. General economic integration, industrial integration and agricultural integration

The complete economic integration of Central America, based on the requirements listed above, is perhaps an ideal objective which would be difficult to achieve in practice within a reasonable period of time. In fact complete economic integration might involve parallel political and administrative integration which falls outside the scope of this report. Complete economic integration would require a total customs union, the free movement of commodities, people and capital throughout the region, a joint administration for customs, ports and some forms of transport, standardization of many aspects of the fiscal, banking, monetary and customs legislation and maybe even a unified currency and credit policy. It would be easy, but of little immediate use, to draw up a long list of the sectors which should be integrated under present conditions.

The original programme adopted by the Committee provided for gradual and progressive integration and it is therefore very limited under present circumstances. No immediate provision was made for a customs union or for the pooling of fiscal, administrative, banking or other services. On the other hand, a certain uniformity of outlook and even some uniformity in the economic policy for specific sectors and in legislation were envisaged. For instance, when consideration was given to the fact that the bilateral free trade agreements might perhaps expand into a network of bilateral agreements, it was deemed advisable to study the possibilities of a multilateral

trade agreement additional to the bilateral arrangements and containing a common list of commodities subject to free trade in Central America. A standard tariff nomenclature for imports and exports has already been prepared and is gradually being adopted by the five countries. Preparatory work has been done in connexion with custom standards which might serve as a basis for the entire tariff legislation of the region. Draft agreements have likewise been formulated on standard road signals, the temporary importation of vehicles and international commodity traffic by road, licences for road transport and related matters. There will be no difficulty in reaching agreement in these or in many other more limited sectors, such as legislation on agriculture, livestock, forests and sanitation, etc.; industrial quality standards; foreign trade statistics, population, agricultural and industrial censuses, transport statistics, etc. But these are only the preliminary stages of integration at which norms are laid down which each country is free to follow or disregard. For integration purposes it would naturally be advisable that the Central American countries should have a minimum of laws, standards and practices in common.

From the more strictly economic aspect, integration has been conceived in a more limited sense, being focussed particularly on integration in the industrial field. With regard to Central America's possibilities of attaining great industrial development, the prospects of industrial growth will be obviously more favourable under conditions of long-term planning and specialization by areas than if each of the five countries tries to implement its own industrial development programme quite independently of the other four and without considering the advantages of having access to the whole, or a major part, of the Central American market rather than only to small domestic outlets, which are sometimes widely scattered. Industrial integration offers the particular advantage of being conducive to the rationalization and specialization of existing industries; it also promotes activities which might perhaps never be established without a programme of co-operation among the five republics.^{10/}

^{10/} This point is discussed more fully in chapter IV.

The fact that the Committee has placed particular emphasis on industrial integration by no means implies that there are no important opportunities for agricultural integration. The density of the population and the potential agricultural resources differ in the five Central American republics. At present there is a more or less well defined pattern in the flow of agricultural commodities from one country to the other, and El Salvador, the country with the densest population, will in the future encounter serious difficulties in producing various foodstuffs in quantities sufficient for its own needs. This situation has already been anticipated in some of the free trade agreements signed in Central America, which give considerable importance to food traffic although they include some export safeguards designed to prevent temporary shortages on the domestic market. Nevertheless up to the present efforts aimed at fostering Central American trade in agricultural commodities have not been the result of an over-all plan formulated and mutually agreed to by the five republics; they have originated in specific short-term arrangements devised to meet given circumstances. The prospects of specialization and mutual trade are certainly greater than present achievements would seem to indicate. Because of soil conditions, occupational patterns in agriculture, wage levels in various localities and the extent to which technology is applied to farming, certain areas of Central America are better suited than others for agricultural production or for growing specific crops. This is true not only of crops; it is also applicable to forestry and livestock, aspects on which preliminary studies have been made by experts of the United Nations Food and Agriculture Organization. Agricultural integration is very important both because it may bring about a larger flow of primary commodities between countries and because agricultural production is closely linked to any industrial development plan for the region. The type of industry most likely to be introduced in Central America in the next few years is the industry for transforming or processing the agricultural, forest and fishery products of the region, although one should not exclude the possibility of establishing other industries using imported raw materials, either because of special market conditions, because of their close connexion with other activities or because of the prospects of stimulating Central American production of the raw materials in question. The objective of industrial /development is

development is, partly, to give more productive employment to the labour force and to provide better supplies for the consumer market thus replacing some imports from abroad which constitute a great drain on foreign currency reserves every year; but exports of semi-processed and processed commodities, whenever feasible, could also be of greater benefit to Central America than the export of raw materials.

This shows that there is no clear distinction between industrial and agricultural integration, but for certain reasons, among them the more urgent need to awaken interest in industrial development problems, the Committee has focussed its attention primarily on industrial integration.

4. Initial integration sectors

The initial programme adopted by the Committee recognized the urgent need for studies on transport and energy and for an examination of the most adequate and feasible means of promoting the training of skilled labour in the region and of establishing an industrial research centre. Some progress has been achieved in these sectors, as is explained more fully in chapter II of this report.

With regard to the industrial sector proper, the views of the Committee were set forth in resolution 2 (AC.17), adopted during the first session at Tegucigalpa, in August 1952. In its preliminary report on the possibilities of integration ^{11/}, the secretariat had presented certain information to the Committee to enable it to appraise the feasibility of including the following activities in an integration programme: cotton textile industry, vegetable oils and fats, tyres and inner tubes, footwear, tanning materials, preparation of meats and hides, milk products, forestry products, pulp and paper, ceramics and glass, fishing industry, canning of fruit and vegetables, fuels, chemicals, agricultural implements and matches. The suggestion was also put forward that the mineral resources of Central America should be investigated in view of the dearth of available information on this subject and the possibility that mining and processing might be developed both for domestic consumption and for export.

Among the activities suggested by the Secretariat, the Committee chose the following: cotton and cotton yarns and textiles; oil-seeds and vegetable oils and fats; livestock, dairy products and preparation of meat and hides; footwear, leather articles and other derivatives; fisheries and allied industries; ^{11/} Op. cit., chapter IV.

/forest resources

forest resources, lumber, pulp and paper industries; rubber, tyres, inner tubes and other rubber articles; wooden and wax matches.

Resolution 2 (AC.17) stated that it would be desirable "to indicate those groups of activities which are of immediate interest and which best comply with the objectives in view" and requested that "concrete projects be formulated, envisaging the establishment of new industries and the improvement and rationalization of those already in existence, taking into account the need for: (a) linking the development of crop and livestock producing activities with industrial development; (b) promoting an increase in the volume of inter-Central-American trade and closer economic complementary activities; and (c) seeking the widest application of the principle of reciprocity keeping in mind the location of productive activities".

As is readily apparent, the list of activities chosen by the Committee includes both industries already in existence, such as cotton yarns and textile and the processing of oil-seeds, and others which have either led a precarious or rudimentary existence, such as the preparation of meat and hides and the manufacture of dairy products, or have yet to be established in Central America, such as the manufacture of pulp and paper and of tyres and inner tubes. There is no doubt that all these activities are essential to Central America not only because they contribute directly towards raising the standard of living, but also because they involve the utilization of local raw materials and primary commodities which, in some cases, even have export possibilities.

The secretariat collaborated with the Committee on the basis of the preceding list in the formulation of the corresponding study projects, and the Committee, in turn, requested the co-operation of the Expanded Programme of Technical Assistance which, from 1952 to 1956 has provided experts and personnel specializing in the various fields covered in the technical assistance programme. Thus, surveys of forest resources, pulp and paper, livestock and dairy products have been carried out, while other surveys are being made of the textile and fishing industries. In addition, following the establishment of the Central American Industrial Initiatives Commission in July 1956 further surveys of a series of industries have been initiated with the participation of private enterprise.

The following chapter sets forth in greater detail the achievements to date and the status of the various projects covered in the programme, including the most general projects such as those dealing inter alia, with transport, energy, customs nomenclature and legislation, finance, public administration, technological research and technical training.

Chapter II

PRESENT STATUS OF THE INTEGRATION PROGRAMME

As indicated in the previous chapter, the programme adopted by the Committee to promote economic integration in Central America comprises a group of inter-related projects. The projects dealing with transport, energy and industrial technology are complementary to the other projects of a more specifically industrial nature. The latter are inter-related by virtue of the complex pattern of economic activity.

Progress in implementing the projects has not been uniform for various reasons. On the one hand, the programme as a whole can be regarded as experimental to some extent, since the feasibility of co-operation among the five countries on specific economic or technical aspects had to be tested gradually. Thus, for instance, one of the projects - namely co-operation for the improvement of technical training - turned out to be somewhat premature and was postponed; conversely, in a few months the project on public administration, perhaps because it coincided with a growing awareness in the five countries of the importance of this question, culminated in the establishment of a Central American training institution. Higher priority has been assigned to some projects owing to the limited resources available to the secretariat and the United Nations technical assistance agencies; all parts of the programme could not be undertaken simultaneously. The priorities, always established by the Committee, have sometimes been affected by the availability of the necessary experts or by the time these experts could make available. No effort has been spared to recruit the services of the most highly qualified personnel from many countries for the studies and technical missions. Finally, the greatest possible care has been exercised in developing each project even when this has involved slight delays.

In its four years of existence, the programme as a whole has shown marked progress. This review will be sub-divided under the following headings: (1) basic economic studies; (2) basic institutional projects; (3) industrial and agricultural development projects; (4) foreign trade

/and tariff

and tariff studies; and (5) statistical co-ordination.

1. Basic economic studies

(a) Transport ^{1/}

In view of the fundamental importance of transport to Central America's economic development, in 1952 the Governments of the region agreed to investigate the situation and presented recommendations for its improvement. The responsibility for carrying out the investigation was assigned to a joint mission of the ECLA secretariat and experts of the Technical Assistance Administration, with the co-operation of the International Civil Aviation Organization. From September 1952 to May 1953 the members of the team compiled data and prepared a preliminary report, which was submitted first to a seminar of experts at San Jose, Costa Rica, in June 1953; it was subsequently submitted in final form, together with the conclusions of the seminar, to the second session of the Committee in October 1953 ^{2/}. The mission made as complete a survey as possible of the transport facilities of Central America and Panama with a view to evaluating their adequacy and efficiency. Special emphasis was placed on the relationship between transport and the economic development of each country as well as on inter-Central American problems. On the basis of its findings the mission made a number of specific recommendations on railways, roads, road traffic, ports and maritime traffic, inland waterways, air transport and transport planning.

The Committee, taking note of the report on transport and recognizing its importance for the appraisal and projection of economic problems in Central America, resolved, on the basis of the mission's recommendations, to take more concrete action with regard to some of the strictly regional aspects of transport which were of common interest. The Committee considered that priority should be given to the following: the co-ordination of international road plans, the regulation of international road traffic and the improvement of services, the possibility of establishing a Central American merchant marine and the improvement of port and

^{1/} Resolutions 4 and 21 (AC.17), 15, 16, 17, 18 and 19 (CCE).

^{2/} United Nations, Transportation in Central America (E/CN.12/356); United Nations Publication, Sales No.: 1953.VIII.2 (printed edition in Spanish only).

shipping facilities, a survey of the maritime freight situation, the possibility of creating a Central American aviation concern and the improvement of air services, and transport statistics. The projects dealing with the regulation of international road traffic and the possibility of creating a Central American merchant marine (including a study of freight tariffs, shipping and port services) were initiated in 1954 with the co-operation of experts appointed by the Technical Assistance Administration. Both were considered urgent, the former because of the international links established by the Pan-American and other highways and the growing volume of motor traffic, and the latter owing to the dissatisfaction in business and official circles of the region with regard to the services and tariffs of shipping concerns.

The report on the regulation of inter-Central American road traffic submitted to the Committee for consideration at its third session ^{3/} concentrates mainly on practical matters. Basing itself on the de facto situation and anticipating an increase in the volume of motor traffic among the republics, which would call for the provision of better facilities and the elimination of the obstacles and delays affecting costs, the report suggests the possibility of adopting common legal standards in respect of the following: road signs and signals, granting of concessions for regional motor services, temporary importation of vehicles and customs facilities, size and weight of vehicles, etc. The report proposes draft inter-Central American agreements, based, so far as applicable, on existing international agreements, and makes several specific recommendations to Governments.

After studying the report, the Committee adopted four resolutions.^{4/} In the first place it recommended that a regional agreement on the temporary importation of road vehicles should be signed along the lines of a text drafted during the session. The second resolution recommended that the Governments should adopt a system of granting concessions to national enterprises of the respective countries and that they should endeavour to conclude bilateral and multilateral agreements fixing standard conditions

^{3/} United Nations, Technical Assistance Programme. Transportation in Central America. Regulation of International Road Traffic (TAA/LAT/3).

^{4/} Resolutions 15, 16, 17 and 18 (CCE).

for the regulation of international road traffic services. Thirdly, it was recommended that the Governments should admit as valid, within their territories, the permits for driving motor vehicles issued by the competent authorities of any other Central American State subject to compliance with minimum requirements also specified in the resolution. Finally, the fourth resolution recommended that the Governments should endeavour to subscribe as soon as possible to the Convention on Road Traffic (Geneva, 1949), and a meeting of traffic authorities was called for the purpose of agreeing on standard policies on road traffic particularly in connexion with highway signals, maximum dimensions and weights of vehicles and standardization of national driving permits. Some progress was registered in 1956 in connexion with all these activities.

The report on maritime transport, also presented to the Committee at its third session ^{5/}, comprises several inter-related parts. The mission of experts which drafted the report realized that the possibility of improving shipping services and even of creating a Central American merchant marine was linked to the problem of rehabilitating the ports of Central America. The concerted effort of the countries of the region and a long-term policy would seem necessary for this purpose. The report thoroughly analyses the present situation in all its complexity and, at the express request of the Committee, it goes into the economic and financial feasibility of creating a Central American merchant marine, drawing attention to the conditions which would have to be fulfilled with regard to ports and other aspects before such a project could be undertaken. The problem of freight rates was studied from a more general point of view, because sufficient data were not available for a proper appraisal, although it is linked to the question of port facilities and other pertinent factors. On the basis of the background data on Central America's maritime problems provided in the report, the Committee decided to recommend that surveys should be carried out and projects initiated for the purpose of modernizing and standardizing Central America's port and maritime legislation, establishing a training school for seamen, and

^{5/} United Nations, Technical Assistance Programme, Transportation in Central America. Maritime Traffic (TAA/LAT/5).

modernizing and improving the port installations and services of these countries. It also recommended that the Governments should co-ordinate their activities to achieve the integration of a Central American merchant marine utilizing the experience and facilities available in the region.^{6/} A start has already been made towards the solution of these problems and preparations are under way for a meeting of port authorities.

The co-ordination of road-building plans and the adoption of common specifications have undoubtedly acquired importance recently in Central America. The Pan-American Highway, the construction of which is proceeding apace, has been possible thanks to inter-governmental agreements and recommendations which conform to a general plan and minimum specifications.^{7/} These standards are of great importance because of their effect on motor transport costs. In recent years, however, plans have been drawn up for other international highways in Central America and some have already been put into effect. These projects originate as parts of national public works programmes and there is no need to stress the fact that the projects of one country should be correlated with those of adjacent countries, in order to obtain the greatest yield from investment and to facilitate traffic. At its second session in 1953, the Committee requested a study of the entire problem with due regard to the accomplishments to date, and the study was included in the technical assistance programme approved for 1955/56; an expert began work on the subject in 1956.

The study of the air transport services and of the possibility of establishing a Central American aviation concern has not been started yet. It should be noted, however, that a mission of the International Civil Aviation Organization has collaborated with the competent national organizations in Central America in the preparation of a standard civil aviation code based on existing international standards and that the directors of civil aviation have held several meetings in this connexion.

^{6/} See resolution 19 (CCE).

^{7/} Cf. the various resolutions of the Pan-American Road Congress, a subsidiary organ of the Organization of American States.

Transport statistics in Central America, on which the joint ECLA/TAA mission made specific recommendations in 1953 in order to remedy the insufficiency and sometimes the complete lack of information, are already being studied by the Sub-Committee on Statistical Co-ordination which held its first session at San Salvador, El Salvador, from 24 to 28 October 1955. At this session a work programme was adopted designed to establish and improve the statistics required for motor transport, maritime transport, railways, inland waterways and air transport.

Following this work plan, at its second session held at San Jose, Costa Rica, from 14 to 19 May 1956, the Sub-Committee considered the reports submitted by the Directors of Statistics of the five countries plus Panama and adopted three resolutions on the subject.^{8/} In the first, dealing with road transport statistics, it was decided that a pilot survey should be carried out in Costa Rica, with the collaboration of a TAA expert and the Bureau of Statistics and Censuses of Costa Rica, in order to show the other countries how to collect statistics of this kind most effectively. An official from the bureau of statistics of each of the other countries will participate in the survey. The second resolution, which refers to maritime transport statistics, expresses the Sub-Committee's support of the survey undertaken by the Inter-American Statistical Institute and the secretariat of the Inter-American Economic and Social Council for the purpose of preparing a minimum plan for the development of comparable maritime statistics and requests these organizations to submit the plan to the Sub-Committee. In the third resolution the Central American Directors of Statistics are requested to pool their efforts in order to collect information on minimum statistical series for railway, air, river and lake transport.

(b) Electric energy^{9/}

For several years Central America's electric energy supply has shown a cumulative deficit. The inadequacy, irregularity and high price of electric services constitute an obstacle to industrial development and a higher standard of living. Although some electricity projects had been initiated since 1951, the magnitude of the problem made it advisable to

^{8/} See reductions 18, 19 and 20 (SC.2) in document E/CN.12/CCE/SC.2) 36.

^{9/} Resolutions 3 (AC.17) and 25 (CCE).

embark on a joint examination of the situation and an exploration of the possibilities of adopting a regional long-term programme for the development of hydraulic resources, the building of hydro-electric and thermal plants and the improvement of the power supply and distribution network. In 1952, the Committee requested that the relevant study should be made and the Technical Assistance Administration appointed a mission of experts in 1953. The report was submitted to the Governments represented on the Committee in June 1954, but did not appear on the agenda until the third session. In addition to covering the specific energy requirements of each country the experts' recommendations included proposals to the effect that the study of power projects in the Central American region should be co-ordinated and observations on a future integrated system of regional services; a ten-year assistance plan was also suggested for the technical surveys still required.

Naturally enough, when the report was submitted at the third session, the data it contained were somewhat out of date and some of its recommendations have already been put into effect or were about to be implemented in several countries. Accordingly the Committee agreed to call a meeting of Central American electricity authorities to be held at San Jose, Costa Rica, in order to facilitate an exchange of information on the experience of each country, to analyse the present situation and development plans from the technical, legal, economic and administrative aspects and to enable a discussion to be held with international experts on fundamental aspects of the electricity industry with a view to standardizing procedures and discussing technical assistance requirements. The United Nations Technical Assistance Administration has appointed an expert to act as co-ordinator and adviser at this conference of Central American electricity authorities.

Other sources of energy have not been examined, but the present report refers to the possibility of establishing the oil refining industry in Central America,^{10/} and the Central American Industrial Initiatives Commission has already considered this question at its first session held in Guatemala in July 1956.

10/ See chapter V, section 2.

(c) Financing ^{11/}

Although in recent years Central America has fared better in its foreign trade and international financial relationships than other parts of Latin America, while domestic savings have increased substantially, the Committee has from the outset always attached importance to studying the means whereby an adequate volume of financial resources could be applied to economic development and, in particular, to the projects which might emerge from the integration programme. Resolutions were adopted on this subject during the first and second sessions. In compliance with the Committee's request, the secretariat has undertaken some studies on the financing of development - two of which have been completed - and has maintained contact with the central banks of the region, which have held three meetings to date at which the means of extending monetary and financial co-operation to the countries of the region and of promoting the expansion of the capital market in each country were discussed.

The first secretariat study dealt with the immediate practical possibilities of improving and expanding the securities market in Central America ^{12/} and, for this purpose, an examination was made of banking and financial institutions, legislations and practices in order to reach conclusions which might be useful to Governments and central banks in planning their fiscal and monetary policy. The Committee took note of this work and referred it to the central banks which examined it at their second session at San Jose, Costa Rica, and based some of their recommendations on it.

The second study assigned to the secretariat, in collaboration with the Fiscal and Financial Branch of the Bureau of Economic Affairs of the United Nations, deals with Central American tax policy in relation to economic development. ^{13/} In this study information is compiled and, so far as this is possible, the tax situation in the four countries is

^{11/} Resolutions 5 and 22 (AC.17).

^{12/} Estudio preliminar sobre problemas de financiamiento del desarrollo económico y la integración en Centroamérica.

^{13/} La política tributaria y el desarrollo económico en Centroamérica (E/CN.12/CCE/66).

compared with particular attention to income, property, export and import taxes and the tax treatment accorded to foreign concessions. The survey was completed by mid-1956 and was submitted to the Committee for its consideration.

(d) Co-ordination of development plans ^{14/}

When the economic integration programme was established in 1952, the Committee recognized the importance of co-ordinating the national development plans of the five republics in order to avoid costly duplications and in order to obtain, through the inter-relationship of various aspects of the plans, the greatest economic benefit for Central America as a whole. No over-all study has yet been undertaken, but the subject has been dealt with partially in the survey on transport, energy, forest resources, pulp and paper, livestock and dairy industries and other industrial sectors. Statistics on national income and its constituent elements are not sufficiently advanced in Central America for figures to be derived which could serve as a general framework for a coordinated plan covering the five countries. In addition, the preparation of national plans by specialized Government agencies began only relatively recently. In 1957 it is hoped to make a more thorough examination of general economic development trends in the five countries.

(e) Population study ^{15/}

At its third session, the Committee considered it desirable to make a detailed study of Central American population problems and their impact on economic development, especially on the relationship between population growth and the economic integration problems of the region. Work on this study began in 1956.

2. Basic institutional projects

The Committee paid special attention to various fields of research and training which will eventually lead to higher productivity both in

^{14/} Resolutions 1 and 11 (AC. 17), and rule 10 of the Committee's Rules.

^{15/} Resolution 27 (CCE), paragraph 5.

administrative activities and in agricultural and industrial production. These are: public administration, industrial research, vocational training and agricultural training and research.

(a) Advanced School of Public Administration ^{16/}

In view of the fact that national economic development programmes and the ordinary work of government require an efficient public administration, the Central American Governments decided, after the first session of the Committee, to request the United Nations to prepare a plan for the establishment of a regional administrative training body. In October 1953, a Technical Assistance Administration expert submitted to the Committee a proposal for the establishment of an Advanced School of Public Administration ^{17/}, the purpose of which would be, on the one hand, to give advanced training to senior Central American officials, and, on the other, to serve as a nucleus for the improvement or establishment of other schools and courses in the four countries for the training of intermediate and junior personnel. With the Committee's approval, the School was established early in 1954, by virtue of agreements signed between the five Governments and the United Nations, and it started to operate in April of that year. The Government of Costa Rica provided the site and a specially equipped building. Operational costs are defrayed jointly by the Governments and the United Nations. To date, three general courses for senior personnel have been completed as well as two special courses, one on municipal administration and town planning and the other on customs. The School has advised Government bodies and has co-operated in the establishment of a national school of administration in El Salvador and in national courses for intermediate personnel. A large number of publications has also been issued. The general courses have an average attendance of 25 students. The School has maintained close contact with the ECLA secretariat; this

^{16/} Resolutions 23 (AC.17), 5 and 29 (CCE).

^{17/} Doc. E/CN.12/AC.17/31. See also documents ESAPAC/86/IG/14, ESAPAC/306/IG.26 and ESAPAC/382/DI.52.

contact has been useful, inter alia, in co-ordinating some of the School's activities with some of the projects in the integration programme and in providing the School with useful information concerning courses on economic matters and integration.

The Director of the School is a United Nations expert and it has a general board of governors consisting of public administrators from the five countries. The Director reports periodically to the Committee on the School's activities. It is anticipated that, after five years' operation, the institution will be maintained exclusively by the Central American Governments.

(b) Institute of Industrial Technological Research^{18/}

The natural resources of Central America offer many potential sources of supply as yet not properly explored; in addition to the lack of information on the resources themselves, no systematic use has been made of modern technology. Moreover, the industrial entrepreneur has not had at his disposal till now the local permanent technological services which enable him to increase productivity and to adapt the techniques and organizational patterns of the industrially advanced countries to the Central American milieu. These problems were discussed in their general aspects at the first session of the Committee, where stress was laid on the need to centralize industrial research in one organization and to train a corps of technicians to advise the Governments and private enterprise on technological matters.^{19/} As a result, the Governments requested the Technical Assistance Administration to appoint a mission to investigate requirements as to technological research and services more thoroughly. The report of this mission^{20/} was discussed at the extraordinary session of the Committee, held in May 1955

^{18/} Resolutions 6 (AC.17); 6 and 32 (CCE).

^{19/} The secretariat prepared a report which was used as a background document for the discussion: Economic integration and technological co-operation. (E/CN.12/AC.17/4).

^{20/} Informe sobre la organización de un Instituto Centroamericano de Investigación y Tecnología Industrial (ST/TAA/J/ Central America/R.2).

at San Salvador, and it was decided that an Institute of Industrial Technological Research should be established to be maintained jointly by the five Central American Governments and the United Nations, according to a financial plan which would provide for a gradual increase in Government contributions and a progressive decrease in the United Nations contribution, so that, at the end of five years, the Institute, like the Advanced School of Public Administration, would be maintained exclusively with Government funds, without prejudice to any income it might derive from its own services. The Government of Guatemala offered a site and suitable premises and, in June 1955, arrangements were begun for the early establishment of the Institute, pursuant to an agreement signed among the Governments and between them and the United Nations.

The Institute, whose Director has been appointed by the United Nations in conformity with the technical assistance programmes requested by the Committee, has a governing body consisting of the members of the Committee, namely the Ministers of Economy of Central America. It was inaugurated on 20 January 1956 and has begun to operate in conformity with the general programmes and policy laid down by its governing body.

The Institute's activities are divided into three main technical departments: research, industrial services and scientific documentation. An industrial economist is available, and the Institute also maintains close contact with the ECLA secretariat as well as with the specialized agencies of the United Nations and other scientific bodies such as the Instituto de Nutrición de Centroamérica y Panamá, the Inter-American Institute of Agricultural Science and others which operate in the region.

(c) Technical training for industry ^{21/}

In addition to considering the promotion and direction of technological research as an essential basis for industrial development, the Committee decided, at its first session, to study the most effective means of improving technical training for industry in Central America, since skilled labour is scarce and since industrial vocational training has not progressed sufficiently. For this purpose, the Governments requested a study to be made by experts of the International Labour Organisation and the United Nations Educational, Scientific and Cultural Organization. In 1953 and 1954, successive missions

^{21/} Resolutions 7 (AC.17); 9 and 31 (CCE).

appointed by these agencies prepared reports and formulated recommendations with a view to the preparation, on the basis of common requirements, of an integrated technical education programme in Central America.^{22/} The first stage will be the advanced and regular training of teachers for industrial schools; at the second stage, training centres will be established for adult workers and, at the third, courses will be scheduled for industrial school graduates. Training during the first and third stages will take place at a regional institute in compliance with the objective of pooling the resources and efforts of the five countries with the assistance of international organizations.

These proposals were presented to the Committee at its extraordinary session in May 1955. The Committee thought that, before any final decision was reached, it was advisable to submit the plan to the Ministers of Education and Labour of each country for their consideration. A conference of the Ministers of Education of Central America and Panama was later held in Guatemala at which consideration was given, among other subjects, to technical training. No positive decision was, however, reached on the specific proposals made by the ILO and UNESCO. In the meanwhile both agencies have begun to collaborate with the Central American Governments on various matters within their purviews. The problem of vocational training for industry continues to be of the utmost importance in the integration programme for Central America, and, at the third session, held at Managua, the Committee discussed the best way of training technical directors for industry, as a supplement to their university technical training. Comments were made not only on the system of fellowships and other arrangements, but also on the desirability of Central America having its own advanced school of engineering and industrial management. In this context, it was recommended that the Governments, through their Ministers of Education and the universities and in collaboration with UNESCO, should pay proper attention to this requirement

^{22/} Informe preliminar sobre la posible creación de un Instituto Técnico Centroamericano para la formación profesional industrial (Annex A, document E/CN.12/CCE/13).

and should consider the establishment of a school of this kind.

With respect to the training of skilled workers and supervisors, the Central American Industrial Initiatives Commission,^{23/} which met for the first time in Guatemala from 16 to 21 July 1956, recommended that the Committee should study the development of a much more extensive personnel training programme than those that existed in several Central American countries, and that any services provided under such programmes should be available not only to the integrated industries but to industry as a whole.

(d) Research and training in crop and livestock production^{24/}

At its first session, the Committee considered the desirability of promoting agricultural research in Central America and of improving training facilities in this equally fundamental sector. There are research centres in Central America, as well as training institutes of various levels, and possibly greater co-ordination and concentration of resources might be attained so that no field of importance to the region's economic development is overlooked. A systematic analysis of the problem has not yet been made, although co-operation between the various organizations on partial aspects has improved in recent years and more attention has been given to Central America's needs.

^{23/} Document E/CN.12/CCE/AC.2/3, and section 4 of this chapter.

^{24/} Resolution 8 (AC.17).

So far as agricultural health services are concerned, the Central American Governments (plus Mexico and Panama) have extended the functions of the former International Committee for Locust Control (CICLA) and have created the International Regional Organization of Agricultural Health Services, with headquarters at Managua, Nicaragua, which will also promote and co-ordinate activities concerned with the eradication of foot and mouth disease and the prevention of animal and plant diseases and plagues. Three meetings of the new Committee have been held to date.

3. Industrial and agricultural development projects

As was noted in chapter I, the industrial programme recommended by the Committee originally included the following industries: cotton and cotton yarns and textiles; vegetable oils and fats; livestock and dairy industries; forest resources, pulp and paper; footwear and leather goods; fishing industry; rubber tyres and tubes; and wooden and wax matches.

At the third regular session of the Committee the list of activities adopted in 1952 was changed. The Committee resolved ^{25/} that the following industries might be of interest for integration purposes from the point of view of the Central American market as a whole: petroleum products; fertilizers, insecticides and fungicides; veterinary and biological products and ampoules; tyres and inner tubes; paints, varnishes and inks; ceramics; glass, plastic and metal containers; pulp and paper; fisheries products; welded tubing and absorbent cotton.

In 1953, 1954 and 1955, the requests for technical assistance in carrying out the industrial studies approved by the Committee in 1952 covered only those referring to forest products, pulp and paper and meat and dairy herds. Reports on these have been submitted to the Committee and, in 1956, reports on the cotton and fishing industries were also submitted. In addition to the experts assigned to the programme, a general industrial economist and a general agricultural economist participate in all these studies.

25/ Document E/CN.12 CCE/33 and resolution 27 (CCE).

The present report, which is intended to give a general picture of the programme and to suggest some further industrial possibilities, later covers,^{26/} in greater detail than the preliminary study presented by the secretariat in 1952, the other industrial branches which the Committee thought could be developed within the pattern of Central American economic integration.

(a) Forest resources, pulp and paper ^{27/}

Soft and hardwood forests cover vast areas of Central America and constitute a source of wealth which, if properly exploited, could make a great contribution to the development of the region, its foreign trade, industrialization and to the improvement of living conditions. Only partial surveys and studies have been made of wooded areas; existing exploitation, apart from causing much unnecessary destruction, does not conform to a general plan nor to the most efficient conservation practices. Central America exports forest products as raw materials and, conversely, has to import semi-finished or finished products such as paper and paperboard.

Consequently, the Committee decided to assign high priority to the survey of forest resources and to the possibilities of developing lumber industries and of manufacturing pulp and paper under an integrated programme. The manufacture of pulp and paper on an economic scale, because of the nature and size of the Central American market, provides a good example of an industry which it might not be possible to establish at all without a common market. The request for technical assistance addressed by the Committee to the United Nations Food and Agriculture Organization provided for the appointment of three experts - one in forestry, one in lumber industries and the third in pulp and paper production - to carry out a preliminary survey in order to ascertain whether the establishment of a pulp and paper industry was feasible and if so, in what locality. The report was prepared in 1953 and 1954 and

^{26/} See chapter V.

^{27/} Resolutions 2 (AC.17); and 1 and 2 (CCE)

was presented to the Committee at the beginning of 1955.^{28/} Two main forest areas were indicated, both situated in Honduras, which offered the best conditions for the development of a pulp and paper industry; three further areas with longer term possibilities were also mentioned.

On the basis of the report, the Committee agreed, at its extraordinary session at San Salvador in May 1955, to recommend that a complete and more specific survey be made with a view to establishing the pulp and paper industry in one of the areas indicated in Honduras. The technical assistance programme therefore included a request for the experts required at this second stage of the work: one expert to appraise forest resources and forest management; one expert in the planning and operation of pulp and paper plants to prepare an initial industrial project; one expert in lumber industries and one expert to prepare financing plans. The new mission, minus the finance expert, began its activities in September 1955, and its work on the selection of the most suitable forest area and the situation of the plant is nearing completion. The corresponding report will be submitted at the next session of the Committee. The industrial stage of the project is planned for 1957.

(b) Livestock and dairy industries ^{29/}

The livestock resources of Central America, like its forest potential, are considerable, but poorly utilized, so that the region does not reap the maximum benefit. In addition to a sizeable inter-Central American trade in cattle on the hoof, the region has exported cattle and meat, but has had to import animals for breeding, powdered milk, cheese, hides and skins; in addition, meat and milk are usually in short supply while distribution is inefficient. The Committee appreciated the important advantages which Central America would derive from the development of integrated livestock and dairy industries. The first task was that of making an over-all survey of livestock, grass and

^{28/} Informe sobre los recursos forestales y las posibilidades de producción de celulosa y papel en Centroamérica (Annex to document E/CN.12/CCE/6).

^{29/} Resolutions 2 (AC.17), 14 and 20 (CCE).

other feeds, technical services, diseases, market characteristics, etc. The FAO mission, appointed at the request of the Governments, began by preparing a technical report in which basic conditions for the development of meat and dairy herds in the region were examined.^{30/}

The report was submitted to the Committee at its third session, together with a preliminary note on economic aspects of the situation and the prospects of this industry in Central America.^{31/} On the basis of these documents, the Committee agreed to transmit the technical report to the Central American Ministers of Agriculture for their perusal and consideration, with a view to putting into effect the recommendations contained therein and of determining, in agreement with the corresponding Ministers of Economy, which objectives could be achieved through the joint efforts of all the Central American countries. In another resolution the Committee agreed to request the Technical Assistance Board to appoint an expert in livestock market organization to examine and analyse the various aspects of the marketing of these products in Central America. With this same end in view, it was also agreed that studies should be made of the operation of three slaughterhouses in three Central American countries, of the possibilities of collaborating on specific aspects of the marketing of certain dairy products and of some industrial activities connected with that kind of marketing. The expert requested has begun his work and the secretariat is also urging the co-ordination and planning of the aspects covered in the resolution.

(c) Fishing industry ^{32/}

The United Nations Food and Agriculture Organization has appointed an expert to study the possibilities of this industry. He will begin by making a preliminary economic analysis on which the necessary detailed studies will later be based.

^{30/} Estudio de los aspectos técnicos de la industria ganadera en Centroamérica. (FAO/35/7/4320).

^{31/} Nota preliminar sobre algunos aspectos económicos de la industria ganadera en Centroamérica. (FAO/55/11/8205).

^{32/} Resolution 2 (AC.17).

(d) Cotton and cotton textiles ^{33/}

The textile industry is the most important in Central America. There are factories in the five countries, which work at different levels of technical proficiency, while the limited size of the markets restricts their output. Many kinds of cotton fabrics are still imported in very large quantities. On the other hand, the production of cotton fibre in Central America has developed in recent years at a rate which is not only sufficient to supply the domestic market but which also produces sizeable export surpluses. No over-all study has been made as yet of the problems of the Central American textile industry nor has sufficient attention been paid, among other things, to the possibilities of rational specialization of the textile factories for the purpose of producing on a larger scale and at reduced costs. These are the main lines for the survey requested by the Committee, for which FAO has appointed an agricultural expert who is making a special study of all aspects of cotton production in Central America, paying particular attention to the rationalization of production methods and the co-ordination of production and, in general, to the technical and economic improvement of production. The United Nations Technical Assistance Administration has appointed another expert to investigate the industrial aspects of the cotton industry. Considerable progress was made in these studies during 1956, and it is hoped that the industrial report will be available to the Committee by the end of the year.

(e) Other industries

It is interesting to note, in regard to the programme adopted by the Committee, that it has so far been impossible to undertake integration studies for the following industries: footwear and leather goods, wooden and wax matches, and tyres and inner tubes. The tyres and inner tubes industry is included again in the suggestions which appear later in this report.^{34/} On the other hand, in the preliminary survey prepared by

^{33/} Resolution 2 (AC.17).

^{34/} See chapter V.

the secretariat, other activities were included which were not considered by the Committee at the time to be of first priority: tanning materials, ceramics and glass, preservation of fruit and vegetables, chemicals, fuels, agricultural implements and the survey of mineral resources. A further analysis is made in this report of the possibilities of establishing an oil refinery and of producing glass vessels and containers; other industrial branches which might be integrated on a regional basis are also studied: biological drugs and ampoules, printers' ink, fertilizers and sulphuric acid, insecticides and fungicides, paints and varnishes and soldered tubing. Some of these industries have been considered in principle by the Central American Industrial Initiatives Commission.

It is also interesting to note that the Central American Industrial Initiatives Commission has recommended that the Committee should undertake a systematic survey of the natural resources and raw materials of Central America so that they may be utilized by integrated industries and be taken into account in the economic integration plans for Central America.

(f) Central American Industrial Initiatives Commission

At the extraordinary session held at San Salvador, in May 1955, the Committee, bearing in mind the changes which the Central American economies had undergone since the adoption of the programme in 1952 and taking into consideration the fact that a proper balance should be struck between the institutional projects and those promoting productive activities and the establishment of new industries, requested that the secretariat ^{35/} should evaluate the situation and suggest to the Committee whatever additions or changes might seem to be advisable for the early accomplishment of the aims of the programme. The evaluation report was submitted to the Committee at its third session, held at Managua in January 1956.^{36/} After examining this report, the Committee

^{35/} Resolution 8 (CCE).

^{36/} Evaluation of the Central American economic integration programme and some new industrial possibilities (E/CN.12/CGE/33) and resolution 27 (CCE).

/concluded that

concluded that the Central American economic integration programme had reached the stage at which it was necessary to pass gradually from over-all planning to positive action in the industrial field, with the greatest possible participation of private enterprise. It was evident that there was no means of collecting information on industrial projects and activities which would enable the Central American industrialists and investors themselves to evaluate Central American market prospects as a whole and in the proper perspective. Consequently, the need to convene frequent meetings of representatives of private enterprise and of the official development sectors of the five countries was manifest. For this purpose the Committee agreed to set up a Central American Industrial Initiatives Commission,^{37/} consisting of two representatives chosen by each Government, one representing private enterprise. The Commission is scheduled to hold at least two sessions every year.

The Commission's purpose is to facilitate the exchange of information on industrial schemes, projects and activities and to examine practical measures for furthering the required technical and economic studies with a view to promoting the most effective development of industry, enhancing market prospects and integrating and correlating the various types of markets.

The first session of the Commission was held in Guatemala, from 16 to 21 July 1956, and industrial development within the framework of Central America's economic integration was discussed; the Commission dealt with ways and means of putting industrial schemes and projects into effect in Central America, bearing in mind the need for the exchange of information and for liaison, scientific and technological research and co-operation between the Commission and private organizations as well as between the former and Governments and official institutions.^{38/} The Commission also considered the draft regime for Central America's

^{37/} Resolution 28 (CCE).

^{38/} See Informe de la Primera Reunión de la Comisión Centroamericana de Iniciativas Industriales (E/CN.12/CCE/AC.2/3).

integration industries, which is dealt with more fully below.^{39/} Finally, the Commission studied some specific industrial development possibilities for the Central American market, including the following: petroleum derivatives; tyres and inner tubes; paints and varnishes; glass, paper and metal containers; ceramics; insecticides; yeast; paper industry; rayon fibre; cotton textiles; absorbent cotton and its derivatives; building materials with a base of linters and cotton-seed husks; woollen fabrics; meat and milk products and by-products; biological, veterinary and pharmaceutical products; fertilizers; iron and steel foundries and rolling mills; vegetable oils and fats; cattle feeds; maize derivatives; wooden and wax matches; aluminium tubing and wooden furniture; and distilling of alcohol. In dealing with the wide variety of items on its agenda, the Commission was assisted by the secretariat and experts from different international organizations. The report on the session has been submitted to the Committee.

(g) Draft regime for Central America's integration industries

When the report evaluating the programme was under discussion, the Committee considered the advisability of promulgating a standard act in Central America for the development and promotion of regional industries. With this purpose in mind the Committee resolved ^{40/} to request the secretariat to prepare a bill setting forth a definition of a regional integration industry and what fiscal privileges and other incentives should be provided in order to ensure its successful development. A preliminary draft prepared by the secretariat was submitted for the consideration of a group of experts appointed under the same resolution, at a meeting held at Managua from 18 to 23 June 1956; this group prepared the final draft and presented it in the relevant report to the Committee.^{41/} The draft regime for integration industries in Central America defines an

^{39/} See section (g).

^{40/} Resolution 26 (CCE)

^{41/} Informe del Grupo de Expertos sobre Régimen de Industrias Centro-americanas de Integración (E/CN.12/CCE/AC.3/3)

integration industry and contains general principles concerning sites and reciprocity, capital formation, competition, fiscal privileges and the obligations of each enterprise. The draft also proposes methods of supervising and controlling such industries and considers the possibility of establishing a Central American industrial development fund. As previously stated, the draft was examined by the Central American Industrial Initiatives Commission, whose observations are included in the report to the Committee.

4. Foreign trade and tariff studies ^{42/}

By definition the promotion of inter-Central American trade is one means of effecting the economic integration of the region. Even before the Committee was established, the Central American countries had begun to enter into free trade agreements. At present agreements of this kind are in force between El Salvador and the four other republics, similar agreements have been concluded between Guatemala and Costa Rica and between the former and Honduras and negotiations have been initiated among some of the other countries for the conclusion of similar agreements or for the extension of those in force.

The Committee was aware from the outset that one of the first practical tasks to be undertaken, which would serve as a background for further studies on trade policy and the development of inter-Central American trade, was the preparation of a standard customs nomenclature. Consequently, at the first session it was agreed to create a Sub-Committee for the Standardization of Customs Tariff Nomenclature which worked for more than three months on a draft standard Central American customs nomenclature (NAUCA), which was later submitted to the Committee. Experts of the United Nations Statistical Office and of the Inter-American Statistical Institute collaborated in the preparation of the NAUCA. The NAUCA is based on the Standard International Trade Classification (SITC) recommended by the United Nations and is an amplification of the latter

^{42/} Resolutions 9, 18 and 19 (AC.17); 4, 7, 11 and 22 (CCE). See also documents E/CN.12/CCE/9, 14 and 37.

adapted to the requirements of Central America's foreign trade.

When the NAUCA was approved, the Committee decided that a Coding Manual should be prepared. This work was assigned to the Central American Trade Sub-Committee established at the second session of the Committee at San José, Costa Rica, in 1953. Other functions were also assigned to the Sub-Committee, among them that of preparing a draft code and standard customs regulations for Central America and of studying the equalization of tariffs for certain commodities in inter-Central American trade.

The Central American Trade Sub-Committee held two meetings, one at Tegucigalpa and one in Mexico, to discuss the draft coding manual. The draft was completed in January 1955 and, during the extraordinary session of the Committee at San Salvador held in May 1955, the manual was finally approved. The secretariat was requested to issue a printed version of the NAUCA and of its Coding Manual for use in the administrative services and general commerce in Central America. This edition was ready for issue in December 1955.^{43/}

The Central American Standard Customs Nomenclature (NAUCA) has already been adopted by Costa Rica, Nicaragua and Honduras, and considerable progress has been achieved in the preparatory work in El Salvador and Guatemala. The NAUCA has also been useful to many other Latin American countries which have been studying reforms in their customs nomenclature.

The Committee also recommended that a standard nomenclature should be prepared for export commodities and such a nomenclature was adopted by the Sub-Committee at its second session.^{44/}

An expert of the Technical Assistance Administration was appointed to prepare a draft standard customs code in 1954 at the request of the Governments; he presented his report at the third session of the Central

^{43/} Central American Standard Customs Nomenclature (NAUCA) and Coding Manual. United Nations Publication. Sales N°. 1955.II.G.3.

^{44/} Nomenclatura uniforme de exportación para Centroamérica
(E/CN.12/CCE/SC.1/4).

American Trade Sub-Committee held at Managua, Nicaragua, from 23 to 26 November 1955.^{45/}

Taking into account the fact that Governments required the opportunity to examine the draft code more closely and in the light of their own legislations, the Sub-Committee agreed to postpone further study and final adoption until a later meeting, requesting that Governments should transmit to the secretariat whatever observations they might wish to make after a careful examination of the draft. In the light of these observations, it was decided that a Technical Assistance Administration expert should again analyse the problem and make a suitable proposal.

During the second session, the Committee requested the secretariat to make a study of inter-Central American trade and Central American trade policy in order to determine the possibilities of concluding a multilateral free trade agreement. The secretariat prepared the relevant studies and presented them for the consideration of the Committee at the beginning of 1955.^{46/} At its extraordinary session, however, the Committee decided to postpone the detailed discussion of this problem until its third regular session. At this session, the Committee paid particular attention to the possibility of establishing a wide free trade area. It was agreed that one of the most valuable means of promoting industrial development and integration in Central America would be the conclusion of a multilateral free trade agreement among the five countries. With this purpose in mind the Committee appointed an Ad Hoc Committee to prepare a draft treaty according to the specific provisions of the corresponding resolution.^{47/} One of these provisions stressed that the draft should establish a free trade area limited to a list of commodities not subject to duties, restrictions and controls, and that the customs duties levied by Central American countries on imports of these commodities and the corresponding raw materials should be standard so far as possible

^{45/} Proyectos de Código y Reglamentos Aduaneros para Centroamérica
(TAA/LAT/4).

^{46/} Análisis y perspectivas del comercio intercentroamericano (E/CN.12/CCE/10)
and Política comercial y libre comercio en Centroamérica (E/CN.12/CCE/11).

^{47/} Resolution 23 (CCE).

and feasible. The Ad Hoc Committee was also asked to make a study of the commodities to be included in the free trade list, bearing in mind, in particular, the commodities to be produced by the industries provided for in the integration programme; the commodities to be produced by industries which, though not included in the programme, could be established on the basis of a common market, and the commodities already in production in Central America in which trade on a wide basis would be possible without affecting domestic economies. The Ad Hoc Committee met from 19 to 24 March 1956 and prepared the draft treaty, as requested, and the list of free trade commodities. The work of the Ad Hoc Committee is described in a report submitted to the Committee.^{48/}

In another resolution,^{49/} the Committee requested the Central American Trade Sub-Committee with the collaboration and help of the secretariat and of other United Nations agencies, to draw up a draft plan which could serve as a basis for the equalization of Central American customs tariffs, as a first step towards the formation of a customs union. The secretariat is preparing the documents in question and will make them available to the Sub-Committee in due course.

5. Statistical co-ordination ^{50/}

The advantages of co-ordinating the preparation of statistics in Central America with a view to standardizing methods, concepts, units and the presentation of data prompted the Committee to recommend, during the second session, that the general directors of statistics in Central America should confer. At the extraordinary session in 1955, the secretariat presented a preliminary study to serve as a guide in this matter, and the Committee decided to create a Statistical Co-ordination

^{48/} Informe de la Comisión Ad Hoc para el Proyecto de Tratado Multilateral de Libre Comercio e Integración Económica Centroamericana (E/CN.12/CCE/AC.1/3).

^{49/} Resolution 24 (CCE).

^{50/} Resolutions 20 (AC.17); 3 and 21 (CCE); and documents E/CN.12/CCE/36 and E/CN.12/CCE/65.

Sub-Committee to carry out the previous objectives. The purpose of the first session of the Statistical Co-ordination Sub-Committee, held at San Salvador, El Salvador, from 24 to 28 October, was to consider a work programme for 1955-56, to study methods of compiling co-ordinated forest and transport statistics - both important for the integration programme - and to examine the problems involved in adapting the NAUCA to the SITC for the purpose of foreign trade statistics. During the session it was also agreed that the various national statistical services should prepare, for the second session, studies on statistical legislation, joint publications and other subjects of common interest. Representatives of the United Nations Statistical Office, of the Inter-American Statistical Institute and of FAO collaborated on the technical aspects of this work.

The second session of the Statistical Co-ordination Sub-Committee was held at San José, Costa Rica, from 14 to 19 May 1956. The reports of the statistical services of the five Central American countries and Panama were examined and a series of resolutions was adopted designed to ensure the orderly presentation and co-ordination of statistics, with particular attention to forest, transport, industrial, agricultural and population statistics. The corresponding report is being considered by the Committee.

Another subject connected with statistics which has a general bearing on the integration programme is the lack of uniformity in the weights and measures used in Central America. This subject was considered at the second and third conferences of the central banks of the region and, for the purpose of furthering study, the Committee decided, at its extraordinary session, to request the Technical Assistance Administration to provide an expert to make an analysis of the existing situation and to propose solutions which would lead to the effective introduction of the metric decimal system. Work on this will be started by the end of 1956.

Chapter III

CHANGES IN THE CENTRAL AMERICAN ECONOMY WHICH AFFECT THE INTEGRATION PROGRAMME

Ever since 1952 the Central American economy has developed at a moderate rate, due, on the one hand, to domestic stimuli (development and public works programmes, agricultural investment) and, on the other, to external factors, particularly the improvement in the terms of trade and the resultant favourable effects on the balance of payments.

Although enough data are not available for a thorough appraisal of the situation, it is estimated that El Salvador's gross income rose by about 14 per cent between 1952 and 1954 while Nicaragua's and Costa Rica's also appear to have increased substantially, though the corresponding figures have not been computed. According to preliminary figures, Guatemala's income grew by only 1 per cent during the same period, partly on account of exceptional circumstances, and Honduras' by about 5 per cent.

Among the main domestic factors which have had a favourable influence on the region's activities, special attention should be drawn to the road-building and road maintenance programmes; the impetus given to electrification; the installation of new industries (not less than 30 factories have been built since 1952) and agricultural investment, mainly channelled to the export sectors.

The most important external element was the export price level. Although the volume exported by Central America as a whole declined slightly by 2.1 per cent in 1954 as compared with 1952, the over-all price level for exports rose by as much as 18.1 per cent. Moreover, from 1952 to 1954 the import price level remained virtually unchanged, while the volume of imports in 1954 was 20.7 per cent higher than in 1952. During the same period, a 20.1 per cent improvement was registered in the terms of trade and the capacity to import expanded by 17.6 per cent.

To judge from preliminary figures alone, in 1955 the export price level declined by 7 per cent and the terms of trade by 9 per cent with

/respect to

respect to the previous year. Nevertheless, the expansion in the export volume (7 per cent) made it possible to maintain import capacity at a level 15 per cent above that of 1952 and only 2 per cent lower than in 1954.

The corresponding increase in imports was used to foster Central America's economic development, since, according to preliminary figures, imports of capital goods grew by 18 per cent between 1952 and 1955, while imports of consumer goods increased by about 30 per cent. *

These manifestations of the over-all economic situation have not failed to affect the economic integration programme, since, despite some temporarily unfavourable factors in some countries, the general trend towards improvement facilitated the expansion of the market, the financing of public works and basic services and the undertaking of large-scale, long-term projects.

Without going into a detailed review of the progress achieved in the Central American economy, a brief description is given below of the changes registered in the following basic sectors which are of particular significance for the integration programme: electric energy; roads and transport; new factories and industrial projects; industrial development legislation and institutions; financial resources; and inter-Central-American trade.

1. Electric energy

That electric energy should be supplied adequately and uninterruptedly at reasonable prices is of vital importance for the Central American economic integration programme, since otherwise it will be impossible to achieve substantial and timely progress in industrialization.

Although for many industries the cost of electric power represents but a small part of the total cost of the final product, this is true only when supply conditions are satisfactory and, more specifically, when the service is continuous. Power shortages may involve an increase in costs many times greater than the charges paid for consumption. Moreover, a drop in voltage not only reduces the speed of the machines used in the

industrial process and therefore the rate of production, but it also increases the wear and tear of equipment and the investment required to keep it in good repair and working order. In addition, both price and supply conditions may be decisive in determining the feasibility of projects requiring high energy inputs.

It might well be that some industrial projects, which were not practicable in Central America under electric supply conditions as they were in 1952, could be undertaken at present, as a result of expanded capacity in some countries of the area, or in future, when the planned installations or those under construction are completed.

Although in recent years generating capacity has expanded considerably in most countries, the installation of power plants and of distribution lines and networks has not kept pace with electricity requirements. Only in some of the main consumption areas was there a marked improvement in 1954-55; in others there were appreciable deficits which made it necessary to ration electricity during periods of peak loads.

From the end of 1951 to the late months of 1954, aggregate power-generating capacity in Central America increased from 155,000 to 232,000 kW, that is, by 49 per cent, or at an average annual rate of 10.6 per cent. At the same time, power production rose from 390 to 660 million kWh ^{1/} or by 70 per cent which represented an average annual rate of increase of 14 per cent.

The following should be mentioned among the main developments in this field: the first two 15,000 kW units of the river Lempa hydro-electric project, in El Salvador, including transmission lines to the localities lying within an economic radius of supply, were working by 1954; in 1952, the second 1,280 kW unit of the hydro-electric system owned by the main public utilities enterprise, was inaugurated at San Luis, El Salvador;

^{1/} Statistics on installed capacity comprise data for all public utilities and for most enterprises which generate their own power. Figures on power production refer mainly to public utilities. Hence, the corresponding data should not be taken as Central American aggregates for all kinds of electric plants.

in Costa Rica, 900 hydro-electric kW were added to the Birris dam in 1953, and in 1954 the public utilities enterprise inaugurated the first 5,000 kW steam unit at San Antonio, near San José, to supply the central zone of the country. The second, also a 5,000 kW unit, was put into operation in 1955, while an additional 7,100 kW were installed in other plants. In 1953-55, Nicaragua built three 3,000 kW diesel stations intended for the city of Managua. In Guatemala, the second 3,000 kW unit at the hydro-electric plant at El Salto began operation in 1954, and other small plants gave an additional capacity of 895 kW. During 1955, various hydro-electric power stations acquired an additional total capacity of 2,700 kW. Finally, in Honduras, Tegucigalpa's public service installed two 800 kW diesel units in 1952, and in 1953 several municipal plants were inaugurated, thus expanding capacity by 405 kW. In 1955 a new 800 kW unit was added to the Tegucigalpa plant.

One beneficial result of the coming into operation of the river Lempa hydro-electric plant was that electricity rates were cut in San Salvador under an agreement concluded between the Comisión Ejecutiva Hidroeléctrica del Río Lempa and the public utilities enterprise to which the former sells power at a reduced high-consumption rate. This reduction, which amounted to 25 per cent for power services, together with a regular voltage and no rationing during hours of peak loads, caused consumption of electricity to increase appreciably in San Salvador and by itself increased the effective capacity of industrial enterprises.

Among the projects at present under construction and which are scheduled to enter into operation between 1956 and 1958 are the completion of the river Lempa hydro-electric plant (El Salvador) which by 1956 should have a total generating capacity of 45,000 kW; the additional 16,000 kW to be installed in Guatemala in a series of minor projects, none to exceed 5,000 kW; the 12,000 kW diesel plant at Colima, planned by the Instituto Costarricense de Electricidad to supply the city of San José, Costa Rica, to be inaugurated in 1956; and the 30,000 kW of the hydro-electric system at La Garita which is well on the way to completion. Finally, progress has been made on the plan to build a new 30,000 kW thermal plant at Managua.

By 1958-59 the increments under consideration and others of less importance will raise Central America's total generating capacity to 340,000 kW, which is 47 per cent above the level reached at the end of 1955.

In addition to the 12,000 kW of the Colima plant and the 30,000 kW of the Garita project, at present under construction, the Instituto Costarricense de Electricidad plans to develop the production of electricity in Costa Rica so that, by 1965, an additional 60,400 kW will be available, mostly hydraulic. The plan includes, inter alia, the Macho river hydro-electric system, with a total installed capacity of 39,000 kW in two units of 12,000 kW each to be finished by 1959 and 1961 and a final unit of 15,000 to be completed in 1963. A 15,000 kW unit is to be inaugurated in 1965 on the Reventazón river, as part of a project to utilize this basin on a more extensive scale.

Other electrification projects in Central America include the hydro-electric system of Jurún-Marinalá at present being considered in Guatemala, which would add 40,000 kW to the generating capacity of the country; in Honduras plans are under way for harnessing the river Lindo, which might initially yield 24,000-27,000 kW, while in Nicaragua preliminary studies have been made of the river Tuma according to which 50,000-70,000 kW could be generated.

Furthermore, there are longer-term prospects, which seem reasonable from a technical and economic point of view, such as the Guarajambala project, between El Salvador and Honduras, which could produce from 100,000 to 120,000 kW, and the utilization of the waters of Lake Nicaragua, where a 100,000 to 170,000 kW plant might be installed. The projects in question require to be linked under a regional system; in the long run they would help to meet the future electricity requirements of the region.^{2/}

^{2/} See Informe sobre electrificación en América Central, op. cit.

2. Roads and transport

When the economic integration programme for Central America was initiated in 1952, the road and transport situation was as described in the report submitted by the joint ECLA/TAA mission to the Committee on Economic Co-operation at its second session held in October 1953.^{3/}

According to the report, in 1953 the total length of roads in Central America was estimated at 21,100 kilometres (excluding Panama). Of this total, 10,230 kilometres were all-weather roads while only 2,040 kilometres were paved. The main route connecting these countries - the inter-American highway - was 2,018 kilometres long, of which 1,666 kilometres were open all year round (673 paved) and 352 kilometres were still to be built. That is to say, 82.4 per cent of the finished roads were usable in all kinds of weather. There were, however, three strategic links connecting finished roads, on which construction had not started and which thus impeded international traffic. These were the 40 kilometres joining Ciudad Cuauhtémoc on the southern frontier of Mexico and kilometre 303 in Guatemala; the 105 kilometre sector between the Nicaraguan frontier and Bagaces in Costa Rica and, finally, the 207 kilometre stretch between San Isidro del General in Costa Rica and the Panamanian border.

Although up to 1952 there had been some expansion of Central America's road network, some very important factors limited its development, preventing the full utilization of investment. Among these were the bad condition, deficient technical and economic planning and inadequate maintenance of existing roads, and the shortage of secondary roads branching from the main highways. These and other restrictive factors had an unfavourable impact on the cost of motor transport, which was expensive for these reasons and also because of the high cost of equipment, fuels and repairs. In addition, road transport was hampered by a number of difficulties peculiar to each country, which obstructed the rapid and easy flow of persons and goods.

^{3/} See Transporte en el Istmo Centroamericano, op. cit.

An analysis was made in the report of railway transport, which is usually organised to serve only the needs of each individual country, and mention was made of the fact that some of these services worked efficiently while others were antiquated and careless about maintenance. Some required improved permanent way, equipment and organization in order to enable the services to conform to modern needs rather than to the conditions prevailing when they were originally established.

In the case of maritime transport, the Mission which prepared the report found sufficient grounds for establishing regular and frequent shipping services, at reasonable rates, if and when some problems were solved, including, in particular, the improvement of port facilities and services and of entry routes, and the joint use of certain ports by two or more countries to prevent duplication of investment.

Although air traffic was inadequate until 1952, there was room for improvement by paying greater attention to the maintenance and building of airports, the regulation of services and the establishment of economic rates.

Since 1952 some changes have occurred in the state of the roads, and road-building programmes have been undertaken, as well as projects for improving ports, motor transport, shipping and air traffic, while in some cases rates have been lowered. A fundamental problem, however, still awaits solution, namely, the condition of most ports, which explains the high maritime rates applied to certain kinds of services. Probably the greatest progress achieved from 1952 to 1955 and that which had the greatest influence from the short-term aspect on trade among the countries of the area and, consequently, on economic integration was in road-building. For this reason, the following analysis refers mainly to this aspect.

(a) Inter-American Highway

One of the most important elements in the integration of transport in Central America will be the completion of the work on the Inter-American Highway. Early in 1953, 33 per cent of the total was paved, 49 per cent was built but not paved, and 18 per cent was yet to be built.

Road-building was mainly concentrated in Guatemala, Nicaragua and Costa Rica. From 1953 to 1954 some parts of the road were paved while other usable sections were revetted. Nevertheless the most important development on this route in 1955 was the opening of the 105 kilometre link joining the Nicaraguan border and Bagaces, in Costa Rica, which allows traffic to flow without interruption from kilometre 303 in Guatemala - 40 kilometres from the border between the latter country and Mexico - and San Isidro del General, in Costa Rica, 207 kilometres from the Panamanian border. The last two links have yet to be built so that traffic may move all the way through Mexico to Panama. In 1955, work was intensified on the Mexico-Guatemala section and, consequently, the opening of this road is scheduled for 1957.

As a result of the aforesaid work, in 1955 the expanse of paved road was 34 per cent, the expanse revetted 53 per cent and the expanse still to be built 12 per cent of the total.

(b) National roads

(I) Guatemala. Investment in roads grew from 3.3 million dollars in the fiscal year 1948/1949 to 7.5 million in 1952/53 and 14.3 in 1954/55. Although building costs per unit rose during the period, the increase in expenditure does reflect a significant expansion in the rate of construction.

In August 1955, the International Bank for Reconstruction and Development lent Guatemala 18.2 million dollars to help finance the construction of roads leading to the Pacific and the Atlantic and for the maintenance of existing roads. It is expected that, with this loan, the two roads will be finished by 1958. The Atlantic highway has become more important since the termination, in June 1955, of the work on the new port of Santo Tomás, near Puerto Barrios, which is considered to be the most modern and best equipped in Central America. Until 1955, however, the port had been practically unused because neither the 6 kilometre link with the Ciudad de Guatemala - Puerto Barrios railway line, nor the 80 kilometre connexion with the Atlantic highway linking the port to the interior of the country, had been built.

/In the

In the last four years work has proceeded apace on the building of the highway on the Pacific coast, which is one of the main arteries of the country since, in addition to constituting a second link between the capitals of Guatemala and El Salvador, it crosses an agricultural area of great potential wealth. During 1953 and 1954, work was done on several sections, and in 1955 the work was further intensified, since in addition to 1.5 million quetzals allocated by the Guatemalan Government, 3 million dollars were provided by the United States Government.

Moreover, in December 1954 the section between Retalhuleu and Champerico was completely macadamized. This road branches from the Inter-American Highway, crosses the Los Altos area, continues to the Pacific coast and joins the coastal road.

(II) El Salvador. Since 1952, the coastal highway has been given highest priority. Although the rate of building decreased during 1953 and 1954, work was intensified on several sections, thanks to the 11 million dollar loan granted in December 1954 to the Salvadorian Government by the International Bank for Reconstruction and Development for the completion of this highway. It is estimated that at the end of 1955 an additional 42 million colones had to be invested to complete the project.

(III) Honduras. This country has concentrated mainly on two projects: the reconstruction of the road from Tegucigalpa to the Pacific coast and the road from the capital to Potrerillos, which, if extended to Puerto Cortés, would link the Atlantic coast with Tegucigalpa and would cross the important area of San Pedro Sula. When these roads are built, the country will have its first inter-oceanic highway.

Consideration is also being given in Honduras to an over-all road development plan, for which the work of the joint ECLA/TAA mission of 1952/53 has been useful.

In December 1955, the International Bank authorized a 4.2 million dollar loan for road maintenance. The loan also made it possible to undertake the preliminary engineering studies for the rehabilitation and construction of a number of sectors of the two important north-western and western routes.

/(IV) Nicaragua.

(IV) Nicaragua. Investment in highways and secondary roads has increased remarkably in recent years. One of the main highways is that from Managua to León, which links the capital to a productive agricultural and commercial area. The work gained further impetus during 1953 and 1954, and macadamizing was completed at the beginning of 1955. When this highway is prolonged to the port of Corinto it will carry an important part of this country's international trade.

In order to keep certain sections open in all seasons, work was done in 1952-53 on the highway from San Benito to Rama which will be the first means of communication by land between the capital and the Atlantic coast. In addition, surveys and final mapping continued while the paving of the road from San Benito was begun in order to maintain the works already constructed.

On the important highway between port San Juna-del-Sur on the Pacific and the Inter-American Highway, building has proceeded intensely since 1953 and its completion was scheduled for 1955-56.

In recent years the construction of secondary roads has also gained impetus, for which, in addition to Government investment, funds from a loan granted by the International Bank in 1954 have been used.

In the aggregate, by August 1955 Nicaragua had 368 kilometres of asphalt roads, 1,664 kilometres of all-weather roads and 2,476 kilometres of roads open during the dry season only.

(V) Costa Rica. From 1948 to 1954 annual public expenditure on roads rose from 500,000 to 2.3 million dollars. Apart from the Inter-American Highway,^{4/} in 1953 work was intensified on the building of the road from Liberia to Puerto Jesús, which crosses the farming and grassland region of the Nicoya peninsula in Guanacaste, opened to traffic in 1954.

The Atlantic highway, planned from San José to the river San Juan at the border with Nicaragua, had been built up to a point called La Virgen by the end of 1955. When ready, this road will link the Sarapiquí area to the capital. When the road meets the river San Juan, access

^{4/} See (a) above.

to the Atlantic coast will be possible by river.

3. New factories and industrial projects

Since 1952 as many as 30 new industrial enterprises have been established in Central America. Among the most salient achievements in this field are the expansion of cement production following the installation of three new kilns, two of them in El Salvador and the other in Nicaragua; the entry into operation of four mechanized factories producing leather footwear and the inauguration of two modern tanneries; the opening of two plywood factories, to make use of Central America's abundant forest resources; the entry into operation of two dried milk plants, two vegetable oil factories and one of margarine. Moreover, the production capacity of the textile industry was expanded by the addition of modern automatic equipment.

(a) Cement

The demand for cement, stimulated by the high rate of private and public building in most of these countries, has remained at high levels in recent years. Thus, regional consumption expanded from 166,000 tons in 1951 to 228,000 in 1953 and by 1955 had reached the 295,000 ton mark. Parallel to this development, regional production increased from 80,000 tons in 1952 to 164,000 tons in 1955, but about 130,000 tons were still imported during the latter year. In view of all this and to bring consumption and production more into line, Nicaragua installed a second 30,000 kiln in 1954, which raised the annual production capacity of the country from 19,000 to 55,000 tons. El Salvador's plant, which began to produce in 1953 with an initial annual capacity of 49,500 tons of cement, installed an additional kiln of 60,000 tons capacity during 1955. At the same time the factory lowered the price per 92 pound sack of cement by 0.30 colones with the object of expanding the demand for this commodity. Following the above-mentioned expansions, Central America's aggregate capacity grew by 160 per cent between 1952 and 1955, reaching an annual level of 236,000 tons, which reduced the former gap between consumption and production considerably.

/In addition,

In addition, Honduras is actively following up a project for a factory to produce 45,000 tons of cement annually, which is the projected demand for 1958 when the factory is scheduled to start operations. With this new unit, to be situated in the northern area of the country, it should be possible to replace about 30,000 tons of imports annually, which in 1954 came mainly from Europe and partly from El Salvador. The project comprises the establishment of an annex to manufacture 15,000 annual tons of dry-slaked lime. The local fruit companies constitute a regular market for this commodity, imports of which, for agricultural purposes, at present amount to approximately the production target.

In Guatemala it is planned to double cement production capacity by the end of 1957 by installing a new 238 daily ton kiln in the existing factory. This expansion calls for a 2.5 million dollar investment.

Finally, a project is under consideration in Costa Rica for the establishment of a cement factory to meet domestic requirements, estimated at 75,000 tons by 1957, which have been covered exclusively by imports until the present.

If the annual rate of increase for cement consumption (12.85 per cent) observable from 1950 to 1955 should be maintained, aggregate consumption in Central America should rise to 423,000 tons by 1958. If expansion projects at present under construction or in the planning stage are in operation by that year, output capacity, estimated at 420,000 tons, would equal anticipated consumption.

(b) Textile industry

One of Central America's staple industries, from the point of view of employment and of its aggregate value to production, is the textile industry, particularly cotton. In 1955, there were 28 factories engaged in this branch of production, of which 10 were in Guatemala, 8 in El Salvador, 4 in Costa Rica, 3 in Nicaragua and 3 in Honduras. Of this total, 18 included both spinning and weaving operations, 4 only spinning and 6 only weaving. By the end of 1955, the factories as a whole were

running 115,000 spindles and 2,800 looms.^{5/}

The equipment is unevenly distributed throughout Central America; the greatest development is in El Salvador and Guatemala, 49,440 spindles and 1,230 looms operating in the former and 41,480 spindles and 862 looms in the latter. Together these two countries own 79.1 per cent of the area's spindles and 73.7 per cent of its installed looms. Nicaragua comes next with 15,500 spindles and 492 looms, which is 13.5 per cent of total spindles and 17.3 per cent of total looms, followed by Costa Rica and Honduras which together account for 7.4 per cent of total spindles and 9.0 per cent of installed looms.

Despite the fact that the output capacity of the cotton textile industry in Central America can meet domestic demand in terms of volume, generally speaking these factories are neither large enough nor have they the necessary equipment to manufacture the varieties and qualities required by the market. In recent years the industry has been adversely affected, to a varying extent in each country, by the strong competition it faces from imported fabrics, which in 1954 totalled 67.7 million metres. Although in some cases measures have been adopted to expand the domestic market, such as Guatemala's Textile Compensation Act and the new tariff which came into force in Costa Rica at the beginning of 1954, the industry had to contend with rising prices for cotton fibres and a growing volume of imports in some countries. The result was that production in 1955 remained at the low level of the two previous years. Despite these difficulties, one of the main plants in El Salvador, installed 256 modern looms as well as other equipment in 1952-53, and, at present, under Japanese technical supervision and with joint Salvadorian-Japanese capital, a textile plant is being installed, with 25,000 spindles and 260 modern looms. In 1953 a new mill was established in Nicaragua, equipped with 265 automatic looms raising the daily production of crude fabrics to 14,000 metres. In October 1952, despite great marketing difficulties, the Río Lindo factory with a capacity to

^{5/} These figures were obtained mainly through direct surveys in factories and should be regarded as provisional.

manufacture 1.1 million metres of drill and coarse cotton cloth was inaugurated, and early in 1955 a new factory with automatic equipment was installed at San Pedro Sula which can produce about 300,000 metres annually. At the end of 1954, a new factory equipped with 26 automatic looms with a rated output of 800,000 metres of coarse cotton fabric a year went into the production of sacks. This plant, which began to manufacture cloth from yarn purchased in the domestic market, started to operate its own spinning equipment in the early months of 1955.

(c) Footwear

Another manufacturing branch in which significant changes have taken place is leather footwear, a commodity which until recently was mainly hand-made because mechanization was hampered by legislation banning imports of the machinery required. As soon as this legislation was repealed, four mechanized factories were installed in the area. Two started to operate in San Salvador in 1953 and their joint capacity amounts to 2,000 pairs daily. Although great efforts have been made in El Salvador to improve the quality of domestic hides and leather, most of the fine leathers required by the industry are still imported. In Costa Rica, another completely mechanized plant with a daily output of 1,000 pairs began to manufacture leather and canvas shoes with rubber soles. Some time before it had established a modern tannery. Also in 1955, the modern mechanized plant at Río Segundo, Alajuela, with a daily manufacturing capacity of about 1,000 pairs of shoes, went into operation. The plant also installed its own tannery, which will process 300 hides daily. Moreover, in the vicinity of Managua a modern slaughter-house with a cold storage plant is being built in order to make full use of animal by-products. The most modern slaughtering methods will be applied and an information campaign will be launched to teach sound methods of animal husbandry to improve the quality of the hides.

(d) Oils and fats

Central America's production of oil from cotton-seed, ajonjolí, groundnuts and African palm rose about 10 per cent between 1952 and 1953. Nevertheless, the regional deficit of edible oils in 1953 totalled

/1,000 tons

1,000 tons while the aggregate supply of fatstuffs fell short by 10,000 tons, thus offering ample scope for the expansion of this industry. In recent times this situation has encouraged the establishment of several new plants which will use the oil-seeds and nuts which are harvested locally in appreciable quantities. Thus, a new plant was inaugurated in Costa Rica in 1954 to replace the old oil factory, the basic raw material being crude oil from African palm. Present refining capacity is about 2,000 tons annually. During the second half of 1956 an existing plant was expanded in Nicaragua to refine 2,300 tons of cotton-seed oil annually. The modern margarine factory, which went into operation in 1951 in Costa Rica and which by 1953 had attained a daily average production estimated at 1.5 to 2 tons, installed a new refining machine in 1954. At the beginning of 1955 the first margarine plant was established in El Salvador. It will produce an estimated 3,000 kilogrammes daily from domestically produced oils.

(e) Lumber and wood

The recent development of some forest industrialization projects also merit attention. Since 1950 a plywood factory has operated in Guatemala, with a monthly capacity of 500,000 board feet. Furthermore, by mid-1954 another plant of the same kind was installed at Puerto Castilla, Honduras, with a rated capacity of up to 500,000 board feet a month. In 1955, production expanded by 80 per cent over the previous year in Guatemala's plywood factory, output rising to more than 6 million board feet. The same enterprise plans to produce chipboard by 1957, in order to use up wood waste, in a new plant with a daily capacity of 10 tons. In addition, it is planned to install a plant in the tropical area of El Petén, with an annual capacity to produce 20 million board feet of mahogany veneers and 750,000 board feet of steam-dried sawnwood. Both factories export part of their production to Cuba and El Salvador, but apparently the volume of such exports has not been generally sufficient to warrant full-scale production. There is no doubt that the expansion of the regional market - the requirements of which are partly covered by imports from outside the area - will contribute to a better utilization of the existing and planned facilities.

/(f) Other

(f) Other industries

Some progress has also been achieved in the dairy industry with the installation of a milk pasteurizing plant (1952-53) and a powdered milk factory in Costa Rica and Nicaragua (1954-55). A sterilization plant was in the last stages of construction in Guatemala while Honduras and El Salvador were also exploring the possibility of producing dried milk. UNICEF has collaborated in most of these projects.

The first modern factories for the production of feed concentrates are operating in Honduras and Nicaragua and more are planned.

In Costa Rica the paint and varnish factory was expanded; in 1955 it produced 50,000 gallons and it can process about 300,000 gallons annually. In the same country, a tin container factory was installed in 1953 which by 1954 manufactured 268,000 quarter-gallon containers and about 6 tons of smaller tins. In 1956, Central America's first soluble coffee plant was established in El Salvador, with an annual processing capacity of about 3,000 tons of coffee beans. The possibility of setting up oil refineries has been considered in some Central American countries. A tyre factory, with a rated output of 60,000 units annually, is being constructed in Guatemala and a similar project is in the planning stage in El Salvador. Both countries plan to begin installing two plants for the manufactured plastic products by mid-1956. The Salvadorean plant will produce a wide range of articles with a polyethylene base, such as bags, plain and corrugated sheets, transparent and opaque plates, milk containers, tubing for water and electric installations, plastic liners for electric copper wire, garden hose and toys. The Guatemalan factory, which will also process imported polyethylene, will manufacture toys only. Finally, a plant is nearing completion in Costa Rica which will manufacture yeast feeds from cane molasses.

All this shows that, although progress in industrialization has not been spectacular in the last four years, the Central American economies have taken a step in the right direction by laying sound foundations for future development. In most cases, however, industries have not

/been established

been established with an eye to the Central American market as a whole, and some have failed to reap the benefit accruing from their inclusion in the regional economic integration programme.

4. Industrial development institutions and legislation

(a) Legislation to promote the establishment of industries

Three Central American countries have enacted legislation for the specific purpose of stimulating industrial development. In order of promulgation these are: the Act to promote the establishment of completely new industries of Costa Rica;^{6/} the Industrial Development Act of Guatemala;^{7/} and the Transforming Industries Development Act of El Salvador.^{8/} In addition, the National Economic Council of Nicaragua is studying a bill to promote industry, and in Costa Rica a new bill for industrial development has been drafted and is awaiting discussion by the national Legislative Assembly.

All these laws are based on common principles. To some extent they all grant customs exemptions for the importation of the building materials, machinery and equipment to be used in the industrial plant in question, and in some cases, under certain conditions and for limited periods, the privileges are extended to raw materials. Tax exemptions, inter alia those levied on profits and income, are also granted in varying degrees and for periods which vary according to the industry to be developed. Moreover, these legal texts contain certain restrictive provisos which tend to limit the scope of the benefits, or to exclude foreign enterprises, enterprises in which foreign capital constitutes specific percentages, enterprises which use a certain proportion of imported raw materials, and, in one isolated instance, enterprises which do not employ a minimum of national staff.

The Costa Rican Act, which refers exclusively to completely new industries, grants tariff exemptions for imports of machinery, spare

6/ Act N° 36 of 21 December 1940, and its amendments.

7/ Decree N°s 459 and 885 of 21 and 25 April 1952.

8/ Decree N° 661 of 26 May 1952.

parts and accessories required for the installation of the factory and on any necessary additional machinery required in the following five-year period; tariff exemptions for five years on imports of fuel, oils and lubricants up to the amount indispensable for the operation of the machines, and on the necessary commodities which cannot be obtained in Costa Rica in sufficient quantities or of the proper quality, provided that these imports do not amount to more than 25 per cent of the raw materials incorporated in the finished product; tariff exemptions for exports of commodities manufactured by the new industry, and "adequate protection against foreign competition when the domestically produced commodity meets national standards as to quality, volume and price in the opinion of the experts appointed for this purpose by the Ministry of Agriculture and Industries".^{9/}

The Act also defines certain obligations to be fulfilled by the enterprises in order to qualify for the foregoing privileges, among them the condition that the applicant enterprise must recruit at least 90 per cent of its staff from among Costa Rican nationals and that at least 75 per cent of the raw materials incorporated in the finished product should be home-produced, with the exception of purely agricultural industries and under specific conditions.

In Guatemala, the Industrial Development Act ^{10/} classifies industries into "integral industries" which utilize only Guatemalan natural resources, and "transforming industries" which utilize both domestic and foreign resources. "Integral" industries are grouped into "basic" industries which are of vital importance to human subsistence, and "convenient" industries covering the remainder; "new" industries are those which manufacture goods not previously produced in the country, and "existing" industries are those already established.

^{9/} See Act N° 36 quoted in footnote 6.

^{10/} Various bills are under study in Guatemala to replace the Industrial Development Act at present in force.

The transforming industries are also divided into new and existing industries and they are further classified, according to the amount of domestic or foreign raw materials they use, into the following sub-headings: (a) those utilizing over 80 per cent domestic raw materials; (b) those that do not use a significant percentage of domestic raw materials but which maintain a high level of employment; (c) those which utilize between 40 and 80 per cent domestic raw materials; and (d) those which use less than 40 per cent.

According to the provisions of this Act, the "basic integral" industries, whether new or existing, shall be exempt, for a period not to exceed ten years, from all taxes, duties and import charges and surcharges in respect of all the materials necessary for the construction of the plant and its extensions, and in respect of all machinery, equipment and accessories, provided it is shown that such articles cannot be produced advantageously in Guatemala. They are likewise exempt from all profits tax during the first two years, from 75 per cent for the next two years, 50 per cent for the two following years, and 25 per cent for another two; finally, they are exempt from the real estate tax for a five-year period.

On the other hand, the new transforming industries which use more than 80 per cent domestic raw materials or which maintain a high level of employment, those which utilize between 40 and 80 per cent domestic raw materials and those which use less than 40 per cent will benefit from the exemptions enumerated above on a progressively decreasing scale and for a shorter number of years, save for imports of duty-free raw materials.

In order to claim these exemptions, the new enterprises which produce for the domestic market and do not require advanced technical skills must be financed predominantly with Guatemalan capital, while in those that require advanced technical skills, it is desirable that domestic funds should constitute at least 33 per cent of the capital, but in certain cases, the foreign contribution may amount to as much as 70 per cent. Industries organized mainly for the export market may operate entirely with foreign capital.

In El Salvador, the Transforming Industries Development Act distinguishes between two categories, "essential" industries producing goods intended to satisfy the basic requirements of the population, and "convenient" industries which are useful and economically important for the country. Under this Act the privileges which may be granted include customs exemption, with total exemption from any duties, charges or surcharges on imports of building materials required to install the plant; motors, machinery, equipment, tools, implements, spares and accessories; raw materials and semi-finished products, provided that they are indispensable, are not produced in El Salvador or are produced in such small quantities that it is not worthwhile to buy them in the home market. Moreover, exemptions from or reductions in fiscal and municipal taxes are also granted in respect of the establishment and operation of an enterprise, the production or sale of its products and the capital invested. In addition, provision is made for exemptions from or reductions in the profits tax.

So-called "essential" production enjoys all import privileges for a period of ten years, total exemption from the foregoing taxes for five years and a 50 per cent reduction in such taxes for the following five-year period. "Convenient" industries may claim the first two benefits in respect of building materials, machinery and equipment for eight years, a 50 per cent tax reduction for five years and a further 25 per cent rebate during the three following years.

Among the main conditions attaching to these franchises and exemptions, two merit special attention: (a) at least 50 per cent of the invested capital must be of domestic origin; and (b) the industry must try to use the raw materials available in El Salvador. Nevertheless, for the purpose of floating capital, any investment coming from other Central American countries will be considered to be of domestic origin, this being the only case in Central America where funds originating in any country of the area are placed on an equal footing with national capital.

This may be due to the fact that in the other countries such legislation was drafted from a purely national point of view, before the countries of the area had become active and determined supporters of Central American economic integration. Hence it might be advisable to analyse such legislation in order to achieve greater standardization, through the granting of reciprocal concessions, as a means of facilitating industrial integration on a regional level.

Such an analysis might be made for the purpose, firstly, of determining the kind and scope of customs and tax exemptions which should be granted on a regional scale to the industries which may be established under the integration scheme with direct contributions of Government capital. Secondly, it might be advisable to examine the system of concessions for new industries, from the point of view of their nationality or capital formation, to determine whether it is feasible to adopt a system whereby capital from Central American sources could be treated on an equal basis with national capital. Finally, if such equalization is not immediately feasible, it would be desirable to determine the differential standards for customs and tax treatment according to whether industrial enterprises are to be established with joint Central American capital or exclusively with national capital.

(b) Development agencies

The existence of development agencies in the five countries may help to accelerate the preparation of industrial integration plans. Most of these agencies have resources available, although on a limited scale, to undertake market analyses and to investigate other aspects essential to the projects under consideration. The co-ordination and co-operation of these agencies in such work might be helpful in connection with certain projects when the experts carry out the preliminary studies and might thus help to expedite the programme.^{11/}

When the Central American Committee on Economic Cooperation was established at Tegucigalpa in 1952, the Banco Nacional and the Consejo

^{11/} For further details see chapter VI.

Nacional de la Producción in Costa Rica, the Instituto de Fomento de la Producción in Guatemala, and the Banco Nacional de Fomento in Honduras were already operating. Since 1952, two new development institutions have been created in Central America: the Instituto de Fomento Nacional in Nicaragua and, just recently, the Instituto Salvadoreño de Fomento de la Producción in El Salvador.

The oldest of these institutions is the Banco Nacional de Costa Rica, a Government agency which has been giving industrial credit through its industrial section created in 1948 on a moderate scale, mainly for the purchase of machinery, tools and raw materials and, to a lesser extent, for the construction of industrial buildings.

The Consejo Nacional de la Producción, founded in 1944, also operates in El Salvador. In 1948, it underwent a substantial transformation, being converted into an independent body. Its main duties include the co-ordination of the activities of the Ministries represented in it and of State banks, in order to promote industrial and agricultural production within the framework of national economic development; the examination and co-ordination of the basic annual work programmes of its member organizations; the provision of storage facilities for commodities; the establishment of minimum price scales for basic consumer goods, raw materials and other products which it controls, and the financing, wholly or in part, of specific projects included in the annual programmes of the Ministries represented in it. Its activities have had far-reaching effects on agriculture, particularly with respect to the purchase of products, for which the minimum prices are fixed in advance. Although its terms of reference cover industrial development, it has hardly touched this field. At present, however, some organizational and operational reforms are apparently under consideration.

The Instituto de Fomento de la Producción (INFOP) of Guatemala was created in 1948 and started to operate in the early months of the following year with a capital of 6.5 million quetzals (6.5 million dollars), all of it contributed by the Government. In accordance with its statutes a basic plan was first prepared defining its objectives

/as follows:

as follows: (a) expansion of production of staple foodstuffs as part of the campaign against the high cost of living; (b) introduction of modern techniques in existing industries to reduce production costs; (c) promotion of export industries which offer favourable prospects and establishment of new industries; (d) reduction in the volume of some categories of imports which can be economically replaced by home products; (e) incorporation of unutilized resources in the domestic economy; (f) extension of easier credit facilities to small borrowers; and (g) initiation of surveys and adoption of preliminary measures to raise the standard of living.

Although in practice the INFOP has participated in the establishment and operation of a number of industrial enterprises, it has concentrated on agricultural and livestock research and the provision of financial facilities. It extends short- and medium-term loans to small- or medium-scale producers, classified according to their annual income.

In 1950, the Banco Nacional de Fomento was founded in Honduras as an independent State organization with an initial capital of 1.5 million lempiras (750,000 dollars), its main objective being agricultural and livestock development and small-scale rural credit and the promotion of activities indispensable for the economic development of the country. It works practically by itself and, unlike similar institutions elsewhere in Central America, its activities are not supplemented by those of other organizations. It is the only agency in the credit sector which deals almost exclusively with agricultural and livestock requirements, and it is also the only agency concerned with the execution of direct development projects on a permanent basis. Industrial loans have represented a small portion of the total credit extended and fall outside the institution's main field of activity.

The Instituto de Fomento Nacional was created in Nicaragua in 1953. It is an independent institute with a capital of 50 million cordobas (7.1 million dollars) which the State must contribute in cash between 1952/53 and 1961/62. Its main duties consist of rendering

/technical assistance

technical assistance to all branches of production; promoting agricultural production and diversification; encouraging the creation and development of industrial enterprises; encouraging capital formation and private enterprise; and, in general, expanding, diversifying and rationalizing domestic production in all its aspects.

Finally, in September 1955, the Salvadorian Legislative Assembly promulgated an Act creating the Instituto Salvadoreño de Fomento de la Producción (INSAFOP), with an initial capital of 3.5 million colones (1.8 million dollars). Its terms of reference include the following: expansion, diversification and rationalization of production; improvement of existing national distribution systems; promoting economic activities designed to facilitate permanent employment; and, in general, serving as the active instrument of the State in executing and financing national plans to foster El Salvador's economic development and raising its standard of living.

In order to achieve these objectives, the Institute will adhere to five-year development plans and annual work programmes. The five-year plans will lay down as specifically as possible the work to be accomplished and the general objectives to be pursued during the following five-year period. Each work programme, will contain the specific programme which, according to the five-year plan in force, has to be executed during the subsequent year, and will list the projects and activities to be financed within the year. Moreover, the Institute's plans will be based on the characteristics of the national economy and on the requirements of most of the population. They will be consistent with the principles of economic integration and the relevant agreements signed by the Central American countries.^{12/}

Apart from these general development agencies, there are two other autonomous bodies in Central America dealing with the development of power production and related activities: the Instituto Costarricense

^{12/} See Ley de Creación del Instituto Salvadoreño de Fomento de la Producción, Decree N° 1939, Diario Oficial N° 193, volume 169, 20 October 1955.

de Electricidad and the Comisión Ejecutiva Hidroeléctrica del Río Lempa, the latter in El Salvador.

The purpose of the Instituto Costarricense de Electricidad (ICE), founded in 1948, is to utilize and co-ordinate energy-producing sources, particularly hydro-electric resources. It is an independent public body with its own capital consisting of 3 million colones (450,900 dollars) floated in bonds, the tax yield from match production and the hydraulic resources set aside as national reserves. The ICE was conceived as a national electrification organization and, although it has undertaken some surveys with this objective in view and some important hydro-electric projects, for instance at La Garita on the Río Grande, it has had to devote much of its effort to remedying the immediate shortage of energy affecting the central zone of the country.

Another development organization in a specific field, the Comisión Ejecutiva del Río Lempa, was established in El Salvador in 1948 to study the possibility of harnessing the river Lempa in order to reduce the shortage of energy then prevailing in the central zone of the country and to satisfy the requirements of growing consumption in the near future. When the project proved to be advisable, the Comisión proceeded to negotiate for a 14,545,000 dollar loan to cover dollar expenditure, and to float an internal bond to cover expenses in national currency.

Other specialized organizations exist in Central America, such as the Instituto de Abastecimiento de Cereales de El Salvador, the Comisión de Estudio del Puerto de Acajutla, and the Departamento de Electrificación Nacional de Guatemala, and the Institutos de la Vivienda, in Guatemala, El Salvador and Costa Rica.

Although most Central American development agencies were established without taking into account regional economic integration, in the case of El Salvador, as shown above, the statutes of the INSAFOP specify that development plans must be in harmony with the principles and agreements relating to Central American economic integration. Thus this national development plan is conceived within the wider framework of the regional integration programmes.

5. Financial resources

Thanks to improved foreign trade - particularly with respect to export prices - Central America's financial resources have increased almost uninterruptedly since 1952. The improvement is specially noteworthy in respect of monetary reserves and the fiscal situation. Moreover, in specific cases, foreign loans and assistance have supplemented domestic resources and have contributed to the execution of important development projects.

By the end of 1951 the monetary reserves of the five countries totalled 119 million dollars, which was about 20 per cent above the post-war level. From 1952 to 1954, a still higher level was maintained, ranging from 140 million during the year-end seasonal low to 170-180 million during the peak months of March to June. In 1954 the reserves decreased slightly, particularly in Guatemala, but the losses were made up during the two subsequent years, and Central America's aggregate monetary reserves stood at 190 million dollars at the end of June 1955 and at 195 million in June 1956. In addition to these official reserves, short-term assets abroad amounted to 109 million dollars in the late months of 1955, as against 100 million at the close of 1952 and 113 million at the close of 1953.

The expansion of foreign trade, together with some fiscal reforms - especially changes in or the introduction of income taxes and of export duties as well as agreements with foreign concessionaires - have led to considerable increments in the tax income of the Central American Governments. Despite the price increases observable between 1952 and 1954, the increments are real and by no means negligible insofar as their impact on development programmes and the possibility of helping to finance the area's economic integration projects are concerned.

Thus, tax yields in Nicaragua, including exchange surcharges, rose from 100.5 to 160.7 million cordobas between 1950/51 and 1953/54. The Central Government's expenditure expanded from 97.8 to 160.2 million in the same interval; of the latter amount, 32.6 per cent was earmarked for

public works and other development projects.^{13/}

In Costa Rica, fiscal income rose from 169.0 million colones in 1952 to 222.6 million in 1954, and to an estimated 300 million in 1955. Expenditure increased in the same proportion and, in 1954, 26.8 per cent was allocated to public works and development projects.

A similar situation was recorded in El Salvador, tax income rising from 116.1 million colones in 1952 to 156.9 million in 1954, while public expenditure grew from 147.6 to 163.5 million. The latter amount was budgeted for 1954, with public works and development activities accounting for 35.2 per cent of the total.

In Guatemala, where tax reforms were less extensive in the period 1951/52 to 1953/54 and where the economic situation was affected by other factors, fiscal income increased from 50.3 to only 61.1 million quetzals, while expenses mounted from 58.7 to 78.1 million.

The improvement was also less marked in Honduras: from 38.6 million lempiras in 1951/52 to 42.9 million in 1953/54, while, during the same period, public expenditure rose from 40.6 to 56.3 million, 37.6 per cent of the latter figure being spent on public works and development projects.

Up to 1952 the International Bank for Reconstruction and Development had lent El Salvador and Nicaragua a total of 16.8 million dollars. Since that year, the Bank's volume of transactions has expanded, and aggregate loans to Central America stood at 64 million dollars in December 1955, of which 24 million went to El Salvador (for hydro-electric works and roads), 18 million to Nicaragua (for roads, silos, electricity development, agricultural machinery and agricultural and industrial development), a further 18 million to Guatemala (for roads) and 4 million to Honduras. Guatemala also obtained 14 million dollars from the United States Government in 1954 and 1955 to finance road-building and to pay for some emergency food imports. The International

^{13/} These and the following data were compiled by the secretariat from official sources. For complete details, see Política tributaria y desarrollo económico en Centroamérica (E/CN.12/CCE/66) prepared by the ECLA secretariat and the Fiscal Branch of the United Nations Bureau of Economic Affairs.

Bank has announced its intention of negotiating with Costa Rica for the financing of an agricultural and industrial credit programme and is considering other projects in Guatemala, Honduras and Nicaragua.

The foregoing shows that both private savings and the Governments' economic capacity have evolved favourably for the execution of economic development and integration plans in Central America. It should be remembered, however, that this improvement has been partly due to boom export prices which by 1955 had already fallen off and for which the prospects are uncertain. This trend towards a deterioration of export prices and the terms of trade, which started in 1955, reappeared in 1956 and has already affected the level of fiscal income in some countries.

6. Inter-Central American trade

In 1952 aggregate trade among the Central American countries was valued at 10.3 million dollars, or 3.1 per cent of these countries' total exports. In 1953, a 10 per cent increase was registered, raising the value to 11.3 million dollars, while the same proportion within the total was maintained. A maximum of 13.6 million dollars was recorded in 1954 which was equivalent to 3.3 per cent of total exports. In 1955 the export trade among the Central American countries was maintained at a high level with a value of 12.6 million dollars. A major part of the increment observable since 1952 can be attributed to the scheduled commodities listed in the free trade agreements concluded between El Salvador and the other countries, as well as to the gradual elimination of some restrictions previously affecting specific commodities.^{14/}

More or less well-defined trends are discernable in inter-Central American trade. Until 1954, El Salvador was the only net importer in the area; its trade deficits amounted to 2.8, 3.6, 3.5 and 3.0 million dollars in 1952, 1953, 1954 and 1955 respectively. In fact, El Salvador

^{14/} With regard to inter-Central-American trade in the periods 1934-38 and 1946-52, see Análisis y perspectivas del comercio intercentroamericano (E/CN.12/CCE/10). The general results of the inter-Central-American free trade agreements are studied in Política comercial y libre comercio en Centroamérica (E/CN.12/CCE/11, chapter V, sections 5 and 6).

is responsible for 60 per cent of intra-regional imports as against less than 30 per cent of intra-regional exports. In 1955 its imports from Central America accounted for 8 per cent of its aggregate imports in comparison with 9 per cent in 1954, 7 per cent in 1952 and 4 per cent in 1946/51. El Salvador increased its imports, both in 1953 and in 1954 from each of the other Central American countries. On the other hand, its exports, although less than its imports, doubled between 1952 and 1954. These trends changed to some extent in 1955. El Salvador's imports from other Central American countries decreased by more than 800,000 dollars, while its exports dropped by 300,000 dollars only.

Honduras ranks first among intra-regional net exporters, its main market being El Salvador. Honduras' trade surplus has tended to increase. Costa Rica's and Guatemala's trade surpluses have also tended to rise although on a smaller scale. Only Nicaragua's trade balance has shown a downward turn and by 1955 a 540,000 dollar deficit was registered, mainly in its trade account with El Salvador.

In 1952, foodstuffs and agricultural raw materials accounted for 80 per cent and manufactures for 10 per cent of inter-Central American trade. As can be inferred from the previous data, such proportions are largely determined by El Salvador's food requirements (cattle and maize from Nicaragua and Honduras) as well as by its purchases of raw materials (hides from Honduras and Nicaragua and lumber from Guatemala and Honduras).

There are some interesting developments with regard to other commodities. For example, El Salvador's exports of footwear have increased considerably. Nicaragua bought 13,000 dollars' worth of Salvadorean footwear in 1952 and 200,000 dollars' worth in 1954, ousting Honduras, whose imports from El Salvador rose from 49,000 to 73,000 dollars during the same period, from its traditional place in the market.

Inter-Central American trade in edible vegetable oils expanded from 109,000 dollars in 1952 to 182,000 dollars in 1953 and 431,000 dollars in 1954. El Salvador alone exported 405,000 dollars' worth of such oils in 1954, replacing products previously supplied from extra-regional sources.

Intra-regional exports of fresh fruit increased from 193,800 dollars in 1952 to 236,800 dollars in 1953 and 717,000 in 1954, mainly from Guatemala to El Salvador. The latter country doubled its purchases of fresh fruit from Central America between 1952 and 1954.

The entry into force of the free trade agreement between Costa Rica and El Salvador opened a market for Costa Rican manufactures and a growing trade in industrial products has also been observable lately between Honduras and El Salvador and between the latter country and Guatemala.

The general trend is towards an increase in the number of commodities exchanged in inter-Central American trade, and industrial products which had never before crossed national borders now flow from one country to the other. The trend will undoubtedly become more marked when overland communications gradually improve.

Although the over-all volume of trade is still modest, its development does show that the five Central American countries are becoming more interdependent and economically integrated.

Chapter IV

BALANCE BETWEEN DIFFERENT KINDS OF PROJECTS

1. Production projects and institutional projects

When the integration programme was reviewed at the extraordinary session, held at San Salvador, emphasis was laid on the need to maintain a proper balance between institutional projects and directly productive, or production, projects.^{1/}

The question of a proper balance is, in essence, a question of order, timing and expediency in the execution of both kinds of projects. Admittedly both have to be, and have been, included in the programme, but the time and intensity of implementation may vary in the interest of maintaining a reasonable balance at all times. The relative advantages and disadvantages of giving precedence to one kind of project over the other should be carefully weighed before determining the sequence of development.

In the case of an individual country, the sequence of economic growth may consist, as it has in many instances, in first laying down an industrial basis or structure and developing it to a predetermined level before embarking on long-term institutional projects, which benefit production indirectly through the services they provide but which are not - and are not meant to be - directly productive. On the other hand when it is not a question of an isolated country but of a group of countries which would profit jointly from an institutional project, or in cases where an attempt is made not to follow the natural sequence but to modify it by introducing changes in the economic structure, which, even though they would certainly occur in the future, it is expedient to precipitate as a means of accelerating the rate of growth, the natural sequence in the development of various types of projects may be altered within certain limits. In this context, several considerations must be taken into account.

^{1/} See resolution 8 (CCE).

First, some of the projects indispensable for Central America's economic development cannot be executed until a series of chemical and industrial surveys, laboratory tests and analyses have been completed. To date, such work has always been done in other areas and the high cost and difficult negotiations involved have by themselves constituted powerful obstacles to the execution of the projects. Moreover when private enterprises are individually unable to undertake large-scale projects in the field of research or in other sectors indispensable for development, and even individual countries cannot afford to set up laboratories and other research facilities, such activities should be gradually incorporated in an integration programme.

Secondly, and from a broader point of view, industry requires certain services which cannot be provided economically except on a relatively large scale. As is shown in chapter V, where some additional integration possibilities are discussed, each project has specific requirements as to capital, labour, raw materials and markets which are sometimes available in the area. The degree to which the area can supply them is an important guide to the future success of each individual plant. But apart from such requirements, there are others of a more general nature which affect almost all industrial projects. The economics of the manufacturing process consists essentially in the execution of a series of operations which are only a part - sometimes a minor one at that - of the whole production process, which ranges from the utilization of raw materials to the multiple operations of final distribution. Industrial development therefore implies the existence of a long chain of basic services, the efficiency of which affects costs in much the same way as does the internal efficiency of the plant.

The principal requirements, without which industrial operations tend to be inefficient and expensive, are transport and communications, energy, continuous information on natural resources and facilities for technological and applied research, as well as industrial technical training to prepare the specialized and skilled personnel required by

/the development

the development process. In point of fact, the savings derived from the free access to these common services may be greater, for some projects, than those forthcoming from improvements in the plant itself.

Transport, for instance, affords a good illustration of how these not directly productive sectors influence the operation of industrial plants. The inadequacy and high cost of transport in Central America have encouraged the development of inefficient plants to supply purely local markets and have also restricted the possibilities of competition within the area. Any expansion of transport systems or reduction in rates would lead to the merger of market sectors which are at present isolated and would thus enable plants to operate on a larger scale and, presumably, at lower break-even points, which is particularly important for capital-intensive industries. Furthermore, the small size of the Central American markets and the water-tight compartments into which they are divided have led to two results: either small industries are established, of uneconomic size but commensurate with the demands of the market, or plants are set up which are of an excessive size in relation to market requirements and which utilize a low percentage of their installed capacity. Both situations, especially the latter, have a most unfavourable impact on productivity, particularly on that of capital, the one factor which should be used as economically as possible. This means that investment in projects which are not directly productive leads to savings in other sectors which cancel out the amount of original investment sometimes over a short period.

The initiation and existence of not directly productive projects are undoubtedly dependent on, and warranted by, the establishment of new industries or productive projects which make use of their services, and their utilization by existing industrial plants or sectors. The utilization of the services provided by institutional projects should bear some relation to the amount of investment and, though it would be difficult to compute in practice, it is easy to conceive that there must be an ideal proportion between investment and the value of services which ensures the most efficient utilization of institutional projects, enabling an appraisal to be made, from some points of view, of the
/relative advantages

relative advantages of institutional versus non-institutional projects. Apart from these purely economic considerations, there are other factors which make it expedient to give proper importance to production projects in an integration programme. Excessive insistence on institutional projects might make the programme seem less vigorous and practical in the eyes of the public. Hence, both kinds of projects were taken into account from the very first appraisal of potential fields for integrated development, with due regard to what seemed to be at the time a proper balance between them.

In fact, of the sectors which were considered at the first session at Tegucigalpa as suitable for integrated action by the five Governments, eight were directly productive projects and the rest were of an institutional character. During the integration programme's short period of existence, achievements in the institutional sector have been greater than in directly productive activities, mainly because the latter, when undertaken on a large scale, require a technical and economic groundwork which can only be laid after time-consuming surveys, while the techniques for the former were already available and could be applied to Central America with little delay.

This circumstance which, together with the initial shortage of services in basic sectors, is the main factor determining the present status of the programme insofar as the proportion between productive and institutional projects is concerned, could also be of some significance in the future if the programme were focussed on long-term productive projects, and could thus retard the immediate and tangible results which are indispensable, for many reasons, for the success of the programme. In order, therefore, to strike a proper balance between the existing institutional structure - or the structure which it may be necessary to create in future - and specific production plants and projects, a series of industrial possibilities are discussed in chapter V of the present report, including small-scale projects which could be executed over the short term if conditions were favourable.

The proportion between both kinds of projects cannot be subjected

/to quantitative

to quantitative analysis or assessed with precision. It is rather a question of common sense and experience, and the proportion may be established periodically according to changing conditions in the area. Apart from the foregoing considerations - based on limited economic experience and on theoretical generalizations which should be amplified and completed in practice in relation to the individual conditions of each project - two important criteria are useful for determining the proportion between the projects: (a) the maturation period of investment and (b) the volume of financial requirements.

Institutional projects tend to produce results over the long term and to require considerable investment. If they are not co-ordinated with directly productive projects, usually with a relatively shorter period between investment and production, the means for financing production projects may become scarce. The possible postponement of the latter would in turn prolong the time required for the indirect recovery of the capital invested in institutional projects, and might delay, perhaps for many years, the period when these projects begin to yield adequate benefits, or, in other words, when a reasonable proportion is established between the value of the services rendered to the economy in general and the sums invested in them. The latter relationship may be called "rotation of invested capital in institutional projects". Given the actual scarcity of institutional projects, however, consideration should be given to the fact that, so long as Central America's structural economic conditions remain unchanged, intensive use will probably be made of these services and some of them will be absorbed by the economy to the extent that they are available.

2. Large or medium-scale industrial projects and small projects

The previous considerations inter alia lead to the conclusion that an economic integration programme must include a given number of small projects. Apart from the relative advantage that they can be easily installed and that they require little capital, because of their size small projects generally fall in the category of so-called "mobile"

/industries, i.e.

industries, i.e. those which can operate with about the same economy whatever their locality. This is a fact that must be borne in mind.

From the very outset, the economic integration programme was conceived as a programme of integration and reciprocity. If the programme is viewed over a large number of years, it would seem that each country will provide favourable conditions for the establishment of different kinds of projects and that, in the long run, the objective of reciprocity will necessarily be fulfilled. It seems highly desirable, however, that reciprocity should be gradually established as soon as specific industrial projects are initiated, and in this respect small industrial projects could play a major role. Since the programme will include industries in which the site will represent an important factor because local costs vary widely depending on the availability of raw materials, energy and markets, and since in such cases there is only a narrow margin for the selection of sites, the existence of a certain number of small projects which allow for greater flexibility in the choice of site may help to minimize disequilibria as between individual countries and to promote reciprocity.

Furthermore, in industries which require a large scale of production in order to operate economically, the project must either be on a large scale or there can be no project at all. Although modern technology allows for a certain margin of tolerance in the scale without any appreciable effect on costs, certain industrial processes have to be carried out on a large scale. For this kind of project even the regional market as a whole may prove inadequate to warrant the operation of a plant of economic size. In that case, it will be necessary to count partly on foreign markets as an outlet for production in excess of regional requirements.

If for one of these large-scale projects, aimed partly at the export market, raw materials are plentiful and cheap and constitute an important cost factor, or if economic hydro-electric power is available for industries with a high ratio between energy costs and total costs, or if the region provides any other advantage which will result in lower costs

/and good

and good export prospects, the industry might be established in the region and might also be valuable for integration purposes. There is, however, one proviso: the total future available market must be proportionate not only to the development of the countries in which the plant is installed, but also to the future conditions of supply and demand in the importing countries. For this reason one of the basic requirements for this type of industry is a careful evaluation of the future available market, including forecasts for a long period ahead, necessarily longer than when the projects are aimed at the domestic market. In the latter case, some of the errors or defects of projection deriving from the short-term nature of the forecast are compensated by the normal growth of the market.

The previous considerations refer to what might be called the absolute size of the projects, measured in terms of capital, number of employees or any other adequate factors. Another relative factor limiting the size of the project is important in determining whether a manufacturing project should or should not be included in an integration programme. The size of plant is, like most if not all economic problems, a relative matter, and in this case should be measured in relation to the markets. In order that a project should be included in the programme, though its scale of operations may be small in absolute terms, it must be large in relation to the individual markets of the countries concerned. One of the main objectives of integration is the establishment of industries which cannot operate on the basis of national markets alone but must have multi-national outlets. Consequently, economic integration should exclude projects which are small, not only in terms of capital, workers, etc., but also with respect to national markets, i.e. those for which the market of an individual country can support one or more industrial plants.

It should be noted that some branches of industry with plants that are small in relation to the absorption capacity of the national markets which now exist in the five Central American countries provide favourable prospects for integrated efforts, from the point of

view of specialization. Industries which manufacture a wide range of products - for instance, textiles and footwear - and whose production does not exceed the limits of a national market, sometimes produce articles for which the economic scale of production exceeds the absorption capacity of the market. In such cases, the pooling of national markets and regional specialization might enable the industries to operate on a larger scale and at lower costs for each product, if production is distributed among specialized factories throughout the region. In view of these considerations, the initial programme adopted at Tegucigalpa included the textile and footwear industries as suitable for integration.

The arguments advanced refer to a possible choice among branches of industry with varying sizes of plant. But frequently it is necessary to make a second choice. Even in the larger branches of industry, technical and processing factors are not so rigid that they have to operate at a given capacity, and there is sufficient flexibility for a choice to be made between factories with relatively greater or lesser capacity according to the conditions of the market for the product and of the capital market.

It is common knowledge that the risk factor, the possibilities of sharp fluctuations and any other uncertainty affecting the security of investment, as well as scarcity of capital or lack of experience in a given industrial process, tend to reduce the size of the plant below the economic optimum warranted by the specific conditions of the region in which it is established. The net result is usually higher costs proportional to the reduction in size; these higher costs are considered a necessary premium to ensure security and diversification of investment or other additional requirements in respect of capital, techniques, etc.

Yet these arguments should not be carried too far. In basic industries which serve other industrial branches affected by the cost of the former, the final cost effect resulting from insufficient size may be greater than the cost increment originally estimated as reasonable for the purpose of reducing the risks to investment or for any other

/purpose of

purpose of capital economy. In these types of projects considerations of efficiency, duly adjusted to regional circumstances, are in the last instance the most important.

Decisions as to the size of plant are also affected by other considerations deriving from the amount of funds available for financing. The development of small or medium-sized projects on the basis of a specific level of financing could go further and cover a greater number of sectors than is possible in the case of large projects. Nevertheless, available financing is not a set sum; it varies according to the anticipated yield of investment. Therefore although considerations of size should be taken into account, it is more important to ensure as far as possible that the projects of the integration programme, whatever their size, should be economic and profitable.

3. Short and long-term projects

The list of possible activities included in the integration programme adopted at Tegucigalpa, as well as the additional possibilities analysed in the present report and at the Managua session,^{2/} cover various kinds of projects: (a) projects which may be undertaken almost as soon as they are approved and which can be executed and start operating within a very brief period; (b) others requiring preliminary surveys which may take some time, and (c) those which, by the very nature of the processes involved, are long-term projects in which there is a long gap between the date of initial investment and the date of production, in other words projects which take a long time to mature.

These various types of projects require financial resources and create a demand for foreign currency which varies according to the size of each and the proportion spent on imported machinery, equipment and services. They also cause a secondary demand for foreign currency in the form of imports. Irrespective of the relative advantages of each project, which must be appraised on their individual merits, the financial consequences and the demand for foreign exchange of each

^{2/} See resolution 27 (CCE).

should be given consideration. During the extraordinary session at San Salvador, this was one of the points which was given greatest emphasis as worthy of study.

In view of the different financial consequences of short and long-term projects, it is worthwhile to plan their execution in such a way that the programme as a whole can be implemented with a volume of investment fixed at a practical level and so that the projects yield the maximum continuous gain. Projects which take long to install usually require considerable investment, which can only be recovered over the long term. Conversely, short-term projects generally require less financing, and investment yields a return within a shorter period.

If for any reason the industrial achievements stage of the programme includes long-term projects only, financial and exchange requirements could become excessive over many years. If, on the other hand, the programme should be focussed mainly on short-term projects, earnings would accrue in a briefer interval and less capital would be needed, but no provision would be made for projects fundamental to the region's economy and possibly also to new or existing industries. It is therefore necessary to strike a balance between both types of projects so that long-term and short-term projects may be carried out simultaneously, the earnings from the latter offsetting and covering part of the formers' financial requirements during the investment period.

4. Some further concepts

As has been explained elsewhere in this report, integration need not necessarily be carried out by installing new industries and can be effected by the expansion or specialization of existing plants. The main requisite in this case is, first, that such expansion should not merely be quantitative, but should also involve an improvement in techniques and changes in cost curves which it would not be possible to effect on a national scale, and, secondly, that specialization should be multi-national, that is, that specialization in one industrial branch of country A for the production of a specific range of commodities to be

sold in the Central American market must be supplemented by specialization in one or several other countries, which will produce the remaining items, supplying the Central American market, country A included.

Nor is it absolutely necessary, in the case of new industries, that integration should involve the establishment of a single plant to supply the whole Central American market. The availability of raw materials, energy and, particularly, transport facilities may make it advisable to establish two or more plants, even when the region is considered as an economic whole, in order to meet the requirements of different multi-national market areas or to produce different varieties of commodities. Some of the industries discussed in chapter V seem to involve such possibilities. Most of them need a sizeable proportion of imported raw materials and the influence which this fact may have on the feasibility and attractiveness of the project should be examined.

The availability of raw materials supplies in the vicinity of the plant is a great advantage when the industry in question uses several tons of raw materials to produce one ton of finished goods or when, for any other reason, the cost of transporting raw materials accounts for a major share of aggregate production costs. In such cases, the enterprise must be situated near the source of raw materials. Conversely, when the amount of raw materials is relatively small in comparison with the amount of finished products, or when the transport costs are proportionately low in comparison with total costs, or, as is the case of petroleum derivatives, when the cost of transporting raw materials is about the same as freight charges for the finished product, the nearness of raw material sources is only a minor advantage and the industry may be situated wherever other significant factors affecting costs are favourable.

There may be some economic justification, therefore, in establishing industries on the basis of imported raw materials, particularly when the product-capital ratio (or capital productivity) is high or when the value added by manufacturing accounts for a substantial proportion of

/the final

the final value of the product. For example, in labour-intensive industries total costs may be less affected by the relative expensiveness of raw materials than by the relative cheapness of labour and this would constitute a comparative advantage.

On the contrary, if domestic raw materials are available and industry utilizes a high proportion of capital, little labour or a high kWh/product coefficient (when energy is in short supply or expensive), the relative disadvantages of these factors may offset the advantage of having raw materials close by, and may thus raise costs and result in economically unfavourable operational conditions.

This does not detract from the importance of regional sources of raw materials. In the first place, other conditions being equal, the utilization of domestic raw materials in a project will have a better effect on employment, production and income than if the project is based on imported raw materials. Secondly, the use of domestic raw materials gradually leads to a better knowledge of natural resources. But the comparative disadvantage of working with imported raw materials may be greater or less and may be amply compensated by the existence of favourable conditions with respect to other factors.

Chapter V

FURTHER POSSIBILITIES OF INDUSTRIAL INTEGRATION

1. Preliminary considerations

In the previous chapter an analysis was made of the general considerations which may or may not justify the establishment of a new industry or the expansion of an existing industry within the framework of regional economic integration in Central America. Although there are many industries which can operate on a very small scale and to supply local markets exclusively, others require minimum marketing possibilities larger than those provided by any single Central American country. If such an industry is established with too small a market base, it must operate with idle capacity or inefficiently. By raising costs this may lead to excessive and permanent fiscal or tariff protection. If the same kind of industry is established under these conditions in more than one Central American country, the over-all economy of the region is still more seriously affected and resources are wasted.

In selecting a series of industries which could be established according to the principles of Central American economic integration, in addition to those considered by the Committee, two fundamental problems arise: (a) the lack of adequate knowledge about Central America's natural and technical resources, and (b) the unreliability of any estimates of future consumption, which will depend not only on over-all factors - rate of growth of national income, income distribution, foreign trade prospects, etc. - but also on the degree to which the five countries maintain the co-operation required by the integration programme, develop their power and transport systems simultaneously and in co-ordination, and undertake a more or less standard trade and tariff policy. The following additional criteria also have a bearing: capital investment; value added; inter-industrial complementarity; availability of skilled personnel and resolute entrepreneurs; savings in foreign currency spent on imports, etc. All these aspects have to be combined with discretion.

In view of all these factors, ten industrial branches, in addition

/to those

to those considered by the Committee, have been selected which seem to be suitable for inclusion in the economic integration programme for Central America. They are the following:

- Petroleum refining
- Tyres, inner tubes and other rubber products
- Glass containers
- Biological drugs and ampoules
- Printers' ink and allied products
- Welded tubing
- Fisheries
- Fertilizers and sulphuric acid
- Insecticides and fungicides
- Paints and varnishes

2. Petroleum refining

(a) Present consumption

Consumption of petroleum derivatives has increased steadily in Central America over the past 20 years. This is natural in areas in process of development and is due to the growth of national income, greater mechanization and electrification, expansion of transport networks and, in short, to the economic development process itself. Total consumption of petroleum derivatives in Central America stood at 779,400 tons in 1954 (see table 1), valued at more than 24 million dollars. The annual average for the eight-year period 1947-1954 was 674,000 tons, which is equivalent to a daily consumption of 1,845 tons. Such a volume, the production of which requires 2,000 daily tons of crude petroleum under normal operating conditions, is enough for the economic operation of a petroleum refinery. Furthermore, assuming the proportion represented by petroleum refining in the aggregate cost of undistributed refined products to be about 20 per cent,^{1/} it may be concluded that Central America's gross product could have increased by almost 5 million dollars in 1954, much of which could have been saved in terms of the balance of payments, if refining had been done locally.

^{1/} The United States Statistical Abstract for 1952 shows that, in 1947, there was a difference of 22.5 per cent between the value of refined products and the cost of the materials, fuels, electricity and other elements used in petroleum refining.

Since at present Central America neither produces nor refines petroleum, consumption approximately equals imports. Imports have grown from 275,000 tons in 1937 to 779,400 tons in 1954, that is, by 183 per cent. During the period for which more complete statistics are available, namely 1947-1954, consumption increased by 58 per cent or at an annual average rate of about 6 per cent (see table 1.) ^{2/}

Table 1
 CENTRAL AMERICA: IMPORTS OF PETROLEUM DERIVATIVES

Products	1947	1948	1949	1950	1951	1952	1953	1954	Average annual percentage increase
									1954 -1947 ^{a/}
(Thousands of tons)									
Petrol and benzine	87.3	122.3	127.4	142.8	155.4	194.4	217.0	231.4	14.1
Kerosene	15.1	18.8	18.8	24.6	29.2	33.3	40.8	46.5	17.6
Diesel and fuel oil	376.1	470.2	446.9	499.0	480.8	439.5	464.3	462.8	1.8
Lubricating oils and greases	9.8	11.4	24.0	15.0	17.3	13.0	21.8	25.6	10.2
Asphalt	4.6	5.7	5.5	17.4	5.9	12.2	14.9	13.1	17.4
Total	492.9	628.4	622.6	698.8	688.6	722.4	758.8	779.4	5.6
(Thousands of dollars)									
Petrol and benzine	3.24	5.13	5.54	6.49	7.92	8.77	8.86	10.65	16.2
Kerosene	0.53	0.92	0.74	0.90	1.00	1.19	1.45	1.65	14.1
Diesel and fuel oil	4.70	8.70	6.70	6.74	7.91	8.92	8.37	8.73	6.3
Lubricating oils and greases	1.30	1.56	1.59	1.50	2.08	2.07	1.98	2.54	8.7
Asphalt	0.11	0.22	0.21	0.46	0.19	0.35	0.48	0.54	20.5
Total	9.88	16.53	14.78	16.09	19.10	21.30	21.14	24.11	11.0

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

a/ Computed by means of the trend curve.

^{2/} The statistics for some countries do not include official and military purchases which will therefore not be considered here.

Figure I shows imports of petroleum derivatives from 1947 to 1954, as well as the corresponding curves. As may be seen, the highest average rate of increase was recorded in Nicaragua (15.6 per cent annually), followed by El Salvador (14.8), Costa Rica (8.9) and Honduras (3.9). Conversely, a slightly negative trend was observable in Guatemala (-1.02 per cent), which is perhaps attributable to the fact that 1951 and 1952 were not representative years because imports dropped substantially. The figure clearly reveals that aggregate Central American consumption follows a rising trend, and that the rate of growth of consumption outstrips that of the population.

Figure II shows the rate of growth of apparent consumption in 1947-54 for selected petroleum derivatives. In comparison with an annual average increment of 5.6 per cent for all petroleum derivatives, consumption of petrol, which in terms of volume ranks next to diesel and fuel oil, grew at a much higher average annual rate than either: 14.1 per cent and 1.8 per cent respectively. The same trend is observable in other areas in process development, and it has substantially changed the pattern of consumption in Central America. As may be seen in table 2 and figure III, the proportion represented by petrol imports in aggregate imports of petroleum derivatives rose from 17.5 per cent in 1947 to about 30 per cent in 1954, while the proportion of diesel and fuel oil dropped from 76.3 to 59.4 per cent during the same interval.

Table 2
 CENTRAL AMERICA: CONSUMPTION OF PETROLEUM DERIVATIVES
 (Percentages)

Products	1947	1954
Petrol	17.5	29.7
Kerosene	3.6	5.9
Diesel and fuel oil	76.0	59.4
Lubricants	2.0	3.3
Asphalt	0.9	1.7
	100.0	100.0

Source: Table 1.

Kerosene imports are rapidly expanding (at an annual rate of 17.6 per cent) which is probably due to the wider use of this product by agricultural machinery, in the home etc.

Imports of lubricating oils are growing at an annual rate of 10.2 per cent, while asphalt follows a very rapidly rising trend of 17.4 per cent annually. An examination of figure II will clarify these figures further. It may be noted that, while petrol, diesel oil and kerosene follow a steady curve, the lines for lubricating oils and asphalt are erratic and do not fully reflect the real situation. In point of fact, it would be logical for consumption of lubricating oils to increase in proportion to the growing use of internal combustion engines. Asphalt consumption will always depend on the intensity of road-building programmes. The most important conclusion to be derived from the figures is that aggregate consumption of the main petroleum derivatives - diesel and fuel oil, petrol and kerosene - which account for 95 per cent of the total, is growing steadily without marked fluctuations.

The distribution of aggregate imports among the five countries and the corresponding percentage variations over the seven-year period can be seen in figure I. Absolute import figures for 1947 and 1954 are given in table 3. At the same time that the total volume of imports expanded by almost 60 per cent during the period in question, the percentage distribution by countries also changed. The volume of imports of petroleum products increased by 16 per cent in Guatemala, but this country's percentage share of the total fell from 41.4 per cent in 1947 to 30.4 per cent in 1954, the difference being split mainly between El Salvador and Nicaragua. Smaller variations were recorded in Honduras and Costa Rica.

The import pattern by commodities for each country does not differ appreciably from that shown for Central America as a whole (see table 2). The proportion of petrol imports tends to be greater and that of diesel and fuel oil correspondingly smaller in El Salvador, Costa Rica and Nicaragua, while Honduras shows a higher percentage of diesel and fuel

oil and a smaller proportion of petrol.

(b) Future consumption and possibility of establishing a Central American refinery

As may be inferred from the preceding section, consumption of petroleum derivatives is increasing rapidly in Central America. It is important in this study to estimate the level to be attained in the near future. If the construction of one or more refineries is to be initiated in 1956, it is reasonable to expect that they will be in operation by 1960-61, and it will therefore be interesting to know the probable consumption levels in subsequent years until 1965. For this purpose two methods of calculation or approximation can be used:

(i) The first consists in a simple extrapolation of the average annual total consumption rates in Central America recorded in 1937-54 (see figure IV). This method would give a consumption figure of 1,190,000 tons in 1960 and 1,660,000 by 1965. On the assumption that a Central American refinery will satisfy all but 25 per cent of requirements,^{3/} 1.2 million tons should be refined in 1965, which is equivalent to a daily consumption of 3,300 tons of petroleum derivatives. Since a refinery normally works 85 per cent of the time, or 311 days a year, it would have to produce 3,900 tons of finished products daily, that is, it would have to process 4,400 tons crude petroleum every day.

(ii) A second calculation could be based on the hypothesis that the consumption trend between 1948 and 1954 alone is representative and not the period 1937-54 (when there were years of exceptionally high consumption following periods of great shortage). This calculation gives a total consumption of 980,000 tons for 1960 and 1.2 million for 1965 (see figure IV). After deducting 25 per cent, 900,000 tons are obtained for 1965 which represents a daily output of 2,900 tons of finished products. This would require a daily processing capacity of 3,200 tons of crude petroleum.

According to these two hypotheses, the following estimates for Central America's consumption of refined petroleum derivatives in 1965 were computed:

^{3/} As is explained below, the 25 per cent not produced by the refinery may consist in special products and imports of current products for zones which cannot be supplied conveniently from the refinery.

(i) By extrapolating consumption between 1937 and 1954: 1.2 million tons annually, or a daily processing capacity of 4,400 tons of crude petroleum; and

(ii) By extrapolating consumption between 1948 and 1954 only: 900,000 annual tons, or a daily refining capacity of 3,200 tons.

The consumption pattern will probably vary by 1965 along the lines indicated in table 2, petrol accounting for a larger share of the total. It is also likely that the percentage distribution of aggregate consumption among the individual countries will change according to the rate of development. All such possible changes will have to be very carefully examined and estimated. Nevertheless, whatever changes have to be introduced in consumption estimates in the light of prospective variations in composition, it is less likely that consumption by 1965 will fall to the lower limit, equivalent to a daily refining capacity of 3,200 tons, than that it will reach a higher value somewhere in between that lower level and the peak estimate of 4,400 tons daily.

The next aspect to be considered is the feasibility of operating a Central American petroleum refinery. It has already been noted that, between 1947 and 1954, a daily average of 1,845 tons of petroleum derivatives was consumed. In 1954, the daily average rose to 2,130 tons. According to different estimates, by 1965 consumption of locally manufactured products could range from a maximum of 4,400 tons of petroleum (crude equivalent) to a minimum of 3,200. Using a mean figure of 3,800 tons, about 26,600 barrels ^{4/} of crude petroleum should be consumed daily in 1965. In 1960, the daily average should stand at 20,300 barrels. Therefore it is reasonable to assume that a refining industry supplying 75 per cent of Central American requirements should produce 27,000 barrels daily, with a break-even point above 20,000 barrels.

A refinery situated in an important market can produce a wide range of special products (which account for 5 to 10 per cent of total

^{4/} An average of 7 barrels per metric ton was assumed, which implies a specific gravity of 26 degrees API (American Petroleum Institute).

production), such as high-grade lubricating oils and greases, certain solvents, etc., which could not be produced economically by a Central American industry. Such products would have to be imported. It is also highly likely that some areas in Central America are so situated in relation to the site of the new refinery that it will be cheaper or generally easier to import some or all current products instead of buying them from the refinery. This may be the case particularly for low-priced products such as diesel and fuel oil which cannot bear high transport costs. In this study it was therefore assumed that imports of special and current products would represent 25 per cent of total requirements.

Broadly speaking, the minimum economic size for a modern refinery ranges from 5,000 to 10,000 barrels daily, according to conditions. Consequently, the present and future volume of consumption justifies the establishment of a refinery which can operate economically.

Before analysing the possibilities of establishing a refinery in Central America, however, the following question should be asked: should such an essential industry be based on imported raw materials? As a general rule when raw materials are bulky and transport accounts for a sizeable share of total costs, it is not advisable to go in for that type of manufacture. But what other alternative is there? The finished products which have to be imported are almost exactly of the same volume and tonnage as the raw materials. Some Central American ports have facilities for bulk unloading. In others, petroleum derivatives are imported in barrels, thus raising transport costs considerably.

On the other hand, many countries - the United Kingdom, for instance - have set up a prosperous petroleum industry on the basis of imported crude petroleum. But profit margins for refining are so critical that transport costs for crude petroleum and the sources of supply will have to be examined with extreme care before any final decision is reached as to the feasibility of such a project in Central America.

In general Central America's geographic position is favourable so far as the supply of crude petroleum is concerned. Since the main

/consumption area

consumption area lies on the Pacific side, California, Colombia and, to a lesser extent, Peru would probably become the chief suppliers because transport might not be very costly. Colombian petroleum, although it is shipped from the Atlantic coast, crosses the Panama canal without paying dues. Venezuela, Mexico and the eastern parts of the United States could also supply crude petroleum and semi-finished products, but the first two at present only export from the Atlantic side while transport costs from the eastern United States could be prohibitive.

It is also true that, in times of war or emergency, the refining industry may be deprived of its raw materials or be unable to obtain sufficient quantities, but in such cases the supply of finished products would also be curtailed; in point of fact, it might be easier to obtain crude petroleum from the oil-fields than to purchase finished products from refineries carrying a heavy work load. Furthermore, the possibility of finding oil deposits in Central America should not be overlooked. Prospecting has begun in several areas of the region and such surveys would be further stimulated should a refinery be established.

There is one more question in relation to refining prospects. Can Central American requirements be satisfied from a single source? At present petroleum derivatives are shipped to the main ports of each Central American country and are distributed from there through existing channels. In many cases, the product is imported in barrels and not in bulk. A careful examination should be made of distribution patterns and costs for finished products. Only a thorough analysis can show whether one or more refineries adequately situated in Central America (an essential characteristic is nearness to a port) could effect distribution at lower, higher or the same costs as compared with the present costs for imported products. Shipping charges between Central American ports are at present as high as between them and United States ports, but perhaps the refinery could make special arrangements. Consideration should also be given to the possibility of using coastal shipping services or of hiring tankers.

The existence of one or more regional refineries would simplify the storage problems in individual countries, which tend to become more acute in the face of growing consumption. Moreover, under an integrated plan, many areas which are distant from national ports could be better supplied from neighbouring countries. But distribution from one or two central points to a scattered and poorly connected market, like that of Central America, involves difficulties which should not be underestimated. This is particularly significant in connexion with low-priced products such as fuel oil which leave a minimum margin of profits and cannot bear high transport costs. Hence the possibility of importing such products from abroad should be explored with respect to the consumer centres which are less readily accessible to the refinery.

In view of all such considerations, this seems to be the critical point on which the decision to establish a refining industry hinges. The answer is not easy whatever point of view is adopted. Only a detailed study can lay the basis for any conclusion.

When the possibility of undertaking some industrial project is being investigated, it is necessary to take into account the characteristics of the project from the point of view of the region's interest. The main characteristics of petroleum refining are: (a) high aggregate fixed capital requirements; (b) heavy demand for machinery and equipment; (c) employment of a high percentage of skilled labour and (d) large size.

These characteristics clearly show why the operation of an integrated refinery aiming at the regional market could be more efficient than a plant built on a purely national scale in a given Central American country, even if the consumption level of the country were such that it could absorb the output of a production unit of a minimum economic size, which is not at present the case in any of the countries. The production/investment coefficient tends to become more favourable as the capacity of the plant increases. Production costs and, consequently, consumer costs would probably be lower in the case of a refinery working for a multi-national market.

It is also likely that for a regional plant the high capital costs could be offset more easily through its impact on the gross product and the balance of payments. As was already stressed on the basis of a tentative and rough estimate, the establishment of a refinery would have raised Central America's gross product by some 5 million dollars in 1954, although it should be borne in mind that only part of this sum would have remained in Central America, since depreciation charges would have been sent abroad, as well as interest charges and profits to the extent that foreign capital had participated in the project.

Skilled labour requirements constitute a disadvantage, but since not many skilled workers are needed, the selection and training of those required would not represent a serious problem, as has occurred in other countries in which similar conditions prevail. The large size of the plant is no handicap because regional consumption is adequate.

This leads to the final question. Have plants of a similar size been successfully installed in other countries under comparable conditions? For example, ECLA's Economic Survey for Latin America, 1954, states that in 1954 Ecuador and Bolivia had a daily petroleum refining capacity of 5,700 and 11,000 barrels respectively; but such data should be viewed in the light of the fact that both countries possess local sources of crude petroleum. Brazil and Uruguay operate refineries using imported crude petroleum and their experience might be useful for Central America.

The foregoing points can be summed up as follows:

(a) Present and future consumption appears to be sufficient to warrant the operation of one or more economic-sized petroleum refineries;

(b) The considerable increase in the gross product and in foreign exchange reserves is a strong argument in favour of considering the establishment of a petroleum refinery;

(c) The fact that raw materials have to be imported does not seem to constitute an important impediment in this case, since transport costs for finished imported products are just as high or higher; but this question requires further study.

(d) In times of emergency it would be easier to obtain crude petroleum than finished products;

(e) A thorough examination is required to determine to what extent and within what radius it will be possible to distribute petroleum derivatives from one or more central sources in Central America as efficiently or more efficiently than at present.

(f) Broadly speaking, the prospects of petroleum refining seem less favourable for the countries of Central America taken individually, but with an integrated Central American economy, it would seem that such unfavourable factors are offset by the advantage of a sufficiently large volume of consumption, and

(g) Other countries have established petroleum refineries on the basis of comparable consumer requirements, although not under entirely similar conditions.

In brief, it may be concluded that it would be worth while to undertake a detailed study of the petroleum refining industry in Central America and that the study should be given the highest priority.

(c) Other considerations concerning a possible Central American refinery

Crude petroleum is a mixture of a great number of carbon or hydrogen compounds called hydrocarbons. They range from the lightest, containing only a few atoms of carbon, to the heaviest, consisting of long chains or rings with several hundred carbon atoms linked together. The boiling-point of the lighter hydrocarbons is lower than that of the heavier ones. Thus, when crude petroleum is heated gradually, the lighter hydrocarbons evaporate first and can be tapped off by cooling and condensation; as the temperature rises, the heavier hydrocarbons vaporize. This process is known as distillation. In this way, the mixture of hydrocarbons constituting crude petroleum can be broken up into various groups or fractions with different boiling points. The main groups are the following:

(i) Light distillates, including petrol, solvent naphtha, kerosene and light fuel oil;

/(ii) Intermediate

- (ii) Intermediate distillates, including heavy fuel oil, diesel oil and gas oil;
- (iii) Heavy distillates, including paraffin and lubricating oils, and
- (iv) Residues, i.e. products which remain after the rest have been distilled, including other lubricating oils, asphalt, coke, etc.

This break-down by distillation is the basis of the refining process, except that, in modern practice, instead of gradually heating the petroleum to release the successively heavier fractions, the temperature is raised rapidly and the resulting gases and liquids are separated by gradual cooling.

The fractions or "cuts" produced by this separation process are called "direct distillation" fractions. According to the kind of base (crude petroleum), exact proportions are obtained of each fraction, for example, petrol, kerosene, diesel oil, etc.

At this stage, however, one important factor comes into play: the proportion of products obtained by direct distillation does not match the structure of demand. Direct distillation of crude petroleum may yield 15 per cent automobile petrol, 20 per cent kerosene, and 30 per cent gas oil, while the market may demand 45 per cent petrol, 3 per cent kerosene and 15 per cent gas oil. In Central America the present break-down is about 30 per cent petrol, 6 per cent kerosene and 59 per cent gas oil, including diesel and fuel oil. If direct distillation only were applied there would be an acute shortage of petrol and a vast accumulation of other petroleum products which would remain unused.

As a solution, methods have been worked out to convert part of the heavier and cheaper fractions, for which there is less demand (such as gas oil and residues) into higher-priced petrol, for which there is great demand. These processes are called "cracking" and consist in breaking the long chains of carbon in the heavier fractions into the shorter chains of which the light fractions are composed. This is accomplished either by heating the heavy fractions to high temperatures (thermic cracking) or by heating them to lower temperatures together

with certain catalyzers which accelerate the breaking of the chains (catalytic cracking).

This process yields an additional volume of light fractions, mainly petrol. Moreover, during the process some hydrocarbons are broken down still further until the chains are shorter than those required for petrol and escape in the shape of gases. The short-chain compounds are often structurally incomplete and unstable. These "non-saturated" gases can in turn be linked in slightly longer and more complete chains as required to produce petrol. This is done by the opposite process to cracking, which is called "polymerization". This again increases the percentage of petrol obtained from crude petroleum.

In the United States the average yield obtained by refining, measured in terms of petroleum derivatives per unit of crude petroleum used, was as follows in 1940:^{5/}

		<u>Percentages</u>
Light products	(Petrol	43.8
	(Kerosene	5.7
Intermediate products	(Petrol and	
	(distillates	14.3
Heavy products	Lubricants	2.9
Residues	(Residual gas oil,	24.3
	(tar,	
	(losses, etc.	9.0
		<u>100.0</u>

In point of fact it is now possible to obtain from 75 to 80 per cent petrol from crude petroleum.

The products obtained by distillation (also called "topping"), cracking and polymerization need further treatment before being marketed. Petrol may have a disagreeable smell due to certain sulphur compounds which must be eliminated; residues must be treated to separate lubricating oils from paraffin and asphalt, and then they must be refined. Finally,

^{5/} Estimated on the basis of statistics published by the American Petroleum Institute, Petroleum Facts and Figures, New York, 1941.

some of these products must be adequately mixed to give them the characteristics required by the consumer.

It was already stated that 27,000 barrels daily of crude petroleum was the basic capacity foreseen for a Central American refining industry. To judge by modern standards, if such capacity were concentrated in a single plant, its size would be considered medium to small. Many enterprises of this size operate efficiently.

Table 3
CENTRAL AMERICA: VOLUME AND PERCENTAGE BREAK-DOWN OF
IMPORTED PETROLEUM DERIVATIVES, BY COUNTRY

Country	1947		1953	
	Thousands of tons	Percentage	Thousands of tons	Percentage
Guatemala	204.3	41.4	236.9	30.4
Honduras	109.2	22.2	144.0	18.5
Costa Rica	83.5	16.9	140.2	18.0
El Salvador	58.0	11.8	154.4	19.8
Nicaragua	38.0	7.7	103.9	13.3
Total	493.0	100.0	779.4	100.0

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

Decisions as to type of operation (for example, size of the cracking unit; whether it is to be thermic or catalytic and of what kind; whether a polymerization unit is to be included, etc.) will depend on the kind of crude available and on the market, which will determine the proportion of each refined product to be obtained.

Some kind of crude petroleum may be available at a low price (due to its quality or because its source is close at hand), but may require greater processing to yield the adequate proportion of finished products; on the other hand, a different and more expensive kind may be available which will require less treatment.

For a long time to come, fuel oil will be the product in greatest demand. This, however, is a cheap product which provides but a small margin of profit for the refiner. At present it is about 25 per cent cheaper than good crude petroleum, because in many countries fuel oil is being replaced by natural gas, electricity, etc. for heating purposes. Yet the petroleum industry cannot eliminate the production of fuel oil from the production of other petroleum derivatives. Even if considerable amounts of fuel oil are treated by the cracking process to obtain petrol, enormous quantities still remain which are marketed at low prices.

All this shows that in the case of a Central American refinery it might be more economical to buy fuel oil than to produce it from crude petroleum. Then the main refined product would be petrol, for the production of which it would not be necessary to buy crude petroleum; it could be obtained by cracking from cheap fuel oil.

A further possibility arises from the foregoing considerations: a plant may be established, composed mainly of a cracking unit, using fuel oil as its raw material. The plant would be less costly than a complete refinery and could be flexible enough to produce other products in less demand on the market, such as diesel oil, kerosene, asphalt, etc., apart from petrol. The complete plan would probably provide for the co-ordinated purchase and delivery of imported fuel oil to the main consumer centres and to the refinery for treatment by the cracking process.

Here again a thorough examination would be required in order to provide the basis for a decision.

Finally, in view of the fact that aggregate consumption in 1965 will probably reach a level many times higher than the minimum economic capacity of a refinery, the possibility should be taken into account of establishing not one but perhaps two or more refineries; for example, one could be set up to supply the Pacific coast and the other for the Atlantic area, or for any other zonal combination which may be economic. The processes and sizes selected for such plants could be adapted to the consumption pattern of their respective areas.

/The price

The price break-down for one barrel of finished products will further clarify this question. Table 4 shows the composition of one barrel of finished products. The corresponding proportions of average refinery yields in the United States petroleum industry in 1940, listed before, at 1955 prices, were used.

Table 4
 UNITED STATES: PRICE BREAK-DOWN FOR ONE BARREL OF PETROLEUM
 DERIVATIVES

Products	Price ^{a/} per barrel (dollars)	Percentage yield	Value of one barrel (dollars)
84-octane petrol	4.95	43.8	2.16
Kerosene	4.20	5.7	0.24
Gas oil and distillates	3.88	14.3	0.56
Fuel oil and lubricants ^{b/}	1.90	27.2	0.52
Losses	-	9.0	-
		100.0	3.48

Source: McGraw Hill Publishing Company, Platt's Oilgram News Service,
 15 August, 1955.

^{a/} F.o.b. San Pedro, California, in August 1955.

^{b/} Lubricants were grouped together with fuel oil since their higher price is due to costly additional processing.

It will be noted that the price for an average barrel of finished products is 3.48 dollars; the high-grade crude petroleum required for production - such as that from California (22-23 API) - costs 2.48 dollars per barrel ^{6/} which leaves a one dollar margin. In general refining costs 0.60 dollars per barrel and therefore gross profits for the refinery amount to 0.40 dollars per barrel.

Under Central American conditions the following two factors come into play which might reduce or entirely wipe out such a profit margin: (a) transport costs for crude petroleum, and (b) the smaller proportion of petrol produced and the correspondingly larger proportion of fuel oil.

^{6/} See National Petroleum News, Cleveland, Ohio, July 1955.

This is another reason for considering the use of fuel oil as a raw material for the regional refinery.

Capital requirements for a refinery will depend on the type of operation selected. Tentatively and as a general guide, it might be estimated that a complete refinery with a daily capacity to process 25,000 to 30,000 barrels of crude oil would cost from 15 to 20 million dollars. A refinery consisting mainly of a cracking unit would cost about 3 million dollars less. A plant of this size would employ 400 to 500 persons and would occupy an area four kilometres square.

The greatest importance attaches to the site of the refinery. The two main factors to be borne in mind are: (i) access to raw materials; since crude petroleum and fuel oil would come by sea the plant must be situated near a port where facilities for unloading tankers are already available or can be installed; and (ii) ease of distribution, which implies that the plant should be so situated as to minimize overland freight charges and shipping costs from the refinery to the Central American consumer centres. When this aspect is considered, the present and future (1960) road network in Central America should be taken into account. It is necessary to stress once again that proximity to a port is essential and although floating and submarine pipe-lines (such as are now in operation in some Central American ports) are adequate for unloading tankers, more complex facilities are required for loading refined products. Where the water is deep it would be necessary to build docks for tankers, but when a ship has to anchor some distance away dykes must be constructed on which to mount the pipe-lines. There are other aspects of the site - water supply, power and labour - which should be taken into account, but they are of minor importance in comparison with the two previous factors.

Distribution of refined products requires careful planning so that prices (before taxes) may be equal to, or preferably lower than, similar imports. A careful study must also be made of the possible use of the tankers, which deliver crude petroleum to the refinery, for transporting finished products within the area. In this context, several factors /deserve examination.

deserve examination. The use of storage tanks for crude petroleum in tankers for transporting finished products is very expensive, because the tanks have to be cleaned thoroughly before refined products can be loaded. In addition, the capacity of the tanks is such that a complete deadweight shipload is obtained with the lightest grades of petrol and therefore, when heavier grades of crude petroleum are shipped, some of the compartments in the tanker must obviously remain empty or be only partially filled. The empty compartments could be used to transport finished products. Alternatively it might be possible to deliver less than full loads of crude petroleum, thus leaving more capacity free for the distribution of products. If such arrangements could be made, it might be possible to reduce distribution costs and the cost of transport for crude petroleum.

Storage facilities are available in the five countries which may have to be expanded and new facilities installed. With respect to sales, serious consideration should be given to the possibility of continuing to use existing channels for wholesale and retail distribution.

3. Tyres and inner tubes

(a) Present consumption

Central American imports of all kinds of tyres and inner tubes have expanded from about 520 tons in 1937 to approximately 4,000 tons in 1955, the value in the latter year being in the neighbourhood of 6 million dollars. When the figures are adjusted by deducting the weight of inner tubes and of tyres not intended for passenger cars or lorries, the tonnages mentioned are approximately equivalent to 20,000 units for 1937 and 154,000 for 1955 (see table 5). The estimated consumption of tyres for passenger cars and lorries is based on the average weight per tyre as recorded in the import statistics for only two Central

American countries, on the assumption that this average is also valid for the other three countries.^{7/}

Apparent consumption in individual countries as from 1937 and the corresponding trends are shown in figure V. Costa Rica and El Salvador reveal the highest rates of increment (16.6 and 16.8 per cent annually, respectively), which is attributable to the greater density of their road networks. Nicaragua with 14.4 per cent, Guatemala with 13.6 per cent and Honduras with 12.8 per cent are not far behind, which shows that the growth of tyre consumption does not differ substantially from one country to another. It should be noted, however, that such growth rates, as illustrated by the trend lines, cannot be taken too literally. After the war shortage of tyres in the markets of the five countries, consumption expanded at a very rapid rate for several years when supply difficulties disappeared. The almost vertical rise in the apparent consumption curve shown in figure V for three of the five countries is also reflected in the slope of the trend lines.

In terms of volume, Guatemala is the main consumer of tyres for passenger cars and lorries (26.7 per cent of total imports in 1950-55), followed by El Salvador (23.4), Costa Rica (18.6), Nicaragua (17.1), and Honduras (14.2).

Undoubtedly consumption of tyres and inner tubes is closely related to the aggregate park of motor vehicles in each country (see table 6).

^{7/} As a rule, Central American import statistics record the weight of all kinds of tyres and inner tubes. The number of units is specified in only two countries (Costa Rica and Nicaragua) and for isolated years only. In some countries the tariff classification makes it impossible to distinguish between tyres and inner tubes. In order to determine the imported tonnage of tyres for passenger cars and lorries only, the percentage for other kinds of tyres and inner tubes was deducted from the total, according to the data supplied by import statistics for countries with an adequate tariff break-down. The coefficient for tyres was 6.3 per cent of total imports. The same bases were used to compute a conversion factor from tons to units for countries whose statistics record both the weight and the number of units imported, a factor which was applied to all import figures expressed in tons only. The proportion of 23.8 kilogrammes per unit thus estimated is the average weighted tonnage for total tyres for passenger cars and lorries, and not the weight of one or several specific kinds.

Table 5
CENTRAL AMERICA: IMPORTS OF PASSENGER CAR AND LORRY TYRES ^{a/}

Year	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Total Central America
(Thousands of units)						
1937	3	4	7	4	2	20
1938	3	3	7	2	2	17
1939	3	5	8	4	3	23
1940	4	4	8	4	5	25
1941	4	7	10	5	6	32
1942	0.5	0.5	1	3	4	9
1943	2	3	4	3	14	26
1944	4	5	7	5	6	27
1945	5	3	6	5	7	26
1946	13	9	23	7	16	68
1947	14	18	28	13	17	90
1948	10	14	27	11	15	77
1949	12	12	20	11	16	71
1950	20	23	28	12	18	101
1951	19	26	29	15	13	102
1952	16	27	26	19	15	103
1953	20	25	32	17	19	113
1954	28	29	38	18	20	133
1955	28	35	36	19	36	154
(Thousands of dollars, c.i.f.)						
1937	47	75	133	71	65	391
1938	56	65	141	60	54	376
1939	57	88	176	74	74	469
1940	85	89	177	87	116	554
1941	86	131	203	101	162	683
1942	16	17	41	67	110	251
1943	73	71	119	75	293	631
1944	133	136	169	140	203	781
1945	146	103	186	170	239	844
1946	351	272	739	190	465	2.017
1947	426	546	933	426	582	2.913
1948	254	442	740	363	508	2.307
1949	321	372	635	350	488	2.166
1950	546	697	880	357	496	2.976
1951	657	998	1.200	532	644	4.031
1952	607	1.091	1.080	798	784	4.360
1953	672	907	1.200	682	829	4.290
1954	742	1.041	1.335	678	833	4.629
1955	974	1.270	1.250	747	1.470	5.711

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

^{a/} Estimated.

^{b/} Actual figures.

Table 6
CENTRAL AMERICA: PASSENGER AND COMMERCIAL VEHICLES
(Thousands of units)

Country		1937	1938	1947	1948	1949	1950	1951	1952	1953	1954
Costa Rica	A	1.9	2.1	3.0	...	4.4	4.6	5.1	5.5	5.9 ^{a/}	...
	B	0.8	0.8	2.1	...	2.9	3.1	3.6	4.1	4.5 ^{a/}	...
El Salvador	A	2.4	2.7	3.3	3.7	4.0	5.9	5.2	4.8	7.5	...
	B	0.8	0.9	1.1	2.1	2.0	2.6	4.3	3.1	4.3	...
Guatemala	A	2.5	2.5	...	5.2	4.6	5.5	7.6	7.8	9.8	11.2
	B	1.6	1.6	...	4.2	4.8	5.9	6.5	4.3	6.5	7.3
Honduras	A	...	...	...	...	...	1.3	1.5	1.9	2.2 ^{a/}	...
	B	...	...	...	...	...	1.9	2.0	2.6	2.9 ^{a/}	...
Nicaragua	A	...	...	...	...	1.4	1.7	2.1	2.6	2.8	4.2
	B	...	...	...	...	0.9	1.0	1.4	1.7	2.0	2.2
Total		...	...	...	...	...	33.5	39.3	38.4	48.4	...

Source: United Nations, Statistical Yearbook, 1954.

A = Passenger cars; B = Commercial vehicles.

^{a/} Estimated on the hypothesis that consumption grew at the same rate as in previous years.

The average proportion of commercial and private vehicles to the aggregate park in Central America in the last four years (1950-53) is 42 and 58 per cent respectively but these proportions are not necessarily the same as those for tyre consumption for passenger cars and lorries, since all commercial vehicles are not lorries and it is likely that lorries wear out more tyres than passenger cars ^{8/} because they are generally used more intensively.

If a comparison is drawn between the total park from 1950 to 1953 with estimated figures for apparent consumption in terms of tyre units, an average utilization factor of 2.6 tyres per vehicle/year is reached. In view of the present condition of the roads in Central America, this

^{8/} It should be stressed that the statistics of some countries do not report on military or official vehicles and that official imports of tyres may also be excluded.

figure seems reasonable when compared with a utilization factor of 1.5-1.8 in the United States and of 2.3-2.4 in Mexico (according to private sources).

Consumption of tyres in Central America is low, not only on account of the small number of vehicles but also because the price of tyres is high (see table 7). There must be an important group of potential consumers who could afford the initial investment required to purchase a passenger car or lorry but who are discouraged by high maintenance costs in which tyres represent a major item.

Table 7
PURCHASE PRICE OF LORRY TYRES IN SELECTED COUNTRIES, 1952 ^{a/}
(Dollars)

El Salvador	120.00
Honduras	125.00
Nicaragua	160.00
Mexico	92.00 ^{b/}
United States	106.55

Source: United Nations, ECLA/TAA mission, Transportation in Central America (E/CN.12/356).

^{a/} 8.25 x 20 x 12.

^{b/} Rough figure.

According to the ECLA/TAA mission which made a survey of transport conditions in Central America, tyre prices are inflated by high shipping and railway freight charges which in some cases account for 35 per cent of the price. Finally the roads are in such a condition that the life-span of the tyres is reduced to an average 16,000 kilometres per tyre as against a normal duration of 30,000 to 40,000 kilometres and this raises the cost to the consumer still further.^{9/}

^{9/} See Transportation in Central America, op. cit. page 203.

(b) Future consumption and prospects of establishing a Central American tyre industry

It is likely that Central America's consumption of tyres will expand in future. Commercial and industrial growth brings in its train an increasing use of road transport for business purposes, and a rising income encourages the use of private cars. With the establishment of a regional petroleum refinery the possible reduction in the price of petrol - or even the improvement and expansion of distribution alone - will tend to be reflected in a growing use of vehicles and therefore of tyres. If tyre production in Central America reduced costs to less prohibitive levels, consumption might be stimulated still further. The intensive road-building programme which is under way in all Central American countries cannot fail to affect consumption of tyres. There will be a demand for more new vehicles and existing vehicles will be used more intensively. In addition, the useful life of tyres will be prolonged when the roads improve.

All these factors should be carefully examined and, insofar as possible, they should be expressed in quantitative terms. Their possible effects should be assessed in order to make a reliable estimate of future consumption. It is therefore advisable to carry out a thorough survey.

In this preliminary study, the following method of calculation was used. It was assumed that a Central American tyre industry could be in operation by 1957-58. The potential market for 1957 and from then until 1965 was therefore estimated. For this purpose the estimated consumption curve for the most recent years (1937-55) was drawn in figure VI and two trend lines were extrapolated for future years, one based on the period 1937-55 with a high annual growth rate of 14.5 per cent reflecting the exceptional post-war imports, and the other based on the period 1948-55 with a more moderate annual growth rate of 10.4 per cent. The two lines define the probable margins for future consumption of passenger car and lorry tyres, which range from a minimum of 179,000 to a maximum of 209,000 units in 1957 and from about 400,000 to 600,000 units by 1965. The growth of the vehicle park, 11.4 per cent annually for the period 1950-53, is a factor in support of the rates calculated.

/It should

It should be stressed, however, that the growth rates observable in 1937-55 and 1948-55 are exceptionally high and that they reflect to a large extent the low relative level of consumption. Hence it should be taken into account that, as Central American tyre consumption reaches higher levels, that very fact will tend to reduce the growth rates. Notwithstanding this development, it has been assumed that these rates will be valid during the relatively short period ending in 1965.

When regional tyre production is considered, it cannot be inferred that a Central American factory would be able to satisfy total demand. There are many kinds of vehicles in Central America requiring very different types of tyres, and the factory would have to concentrate on some of the main kinds. Moreover, new vehicles are usually imported with tyres. It may therefore be assumed that one half of total requirements would be covered with imports, which would leave 90,000 to 105,000 tyres to be manufactured locally in 1957. Estimated consumption for 1965 is 396,000 to 615,000 units, which leaves a balance of 198,000 to 307,000 tyres to be supplied from regional production. On these bases, the market for locally manufactured tyres is as shown in table 8. Since the future factory would produce not only tyres but inner tubes also, the potential market for the latter was calculated on the basis of a ratio of 51.5 per cent inner tubes to tyres according to available statistics on Central American imports and experience in other areas.

Table 8

CENTRAL AMERICA: ESTIMATED CONSUMPTION OF LORRY AND PASSENGER CAR TYRES AND INNER TUBES MANUFACTURED IN THE REGION ^{a/}

(Thousands of units)

Year	Tyres		Inner Tubes	
	Minimum	Maximum	Minimum	Maximum
1956	81	92	42	47
1957	90	105	46	54
1958	99	120	51	62
1959	109	137	56	71
1960	121	157	62	81
1961	133	179	70	92
1962	147	205	76	106
1963	162	235	84	121
1964	179	269	92	139
1965	198	307	102	158

Source: Economic Commission for Latin America, based on Central American import statistics.

Note: The minimum estimate is based on the import trend for 1948-55; the maximum on the 1937-55 trend.

a/ Half of the estimated aggregate future consumption in the region.

It is necessary at this juncture to determine whether the present market (or that for 1957) is large enough to justify the establishment of an economic-sized factory. The minimum size of a manufacturing unit varies according to the market conditions within which it operates. For example, a tyre factory established in a country in which the bulk of consumption devolves upon only a few types of tyres may have a minimum capacity of up to 25,000 units annually. The same is true when a market is supplied by several factories which already produce many kinds of tyres and when the plan is to establish a new plant which will specialize in one or two specific items. This is not the case in Central America. A regional factory would be forced to produce a considerable number of types, even if, as has been assumed, only 50 per cent of requirements were satisfied, imports covering the remainder.

A factory of minimum economic size, equipped to produce a reasonable range of tyre sizes and types, should manufacture 400 units in three daily shifts. This is equivalent to about 80,000 to 120,000 tyres annually, according to the number of days worked.^{10/}

The most adequate size and hence the best investment can only be determined after a thorough analysis of the range and volume of tyres actually consumed ^{11/} and an estimate of the future consumption pattern.

It would be difficult to manufacture any kind of tyre for which requirements are less than 500 units annually, and even then, production would be economic only if the total volume were manufactured in one run and if, apart from the vulcanization die, factory facilities could handle the size and type in question. It should be recalled that the die alone for each particular type and size may cost about 15,000 dollars.

A factory with capacity to produce 400 units daily would employ about 100 workers per shift, that is a total of 300. There are many

^{10/} Some Mexican tyre factories base their capacity calculations on 200 complete working days per year.

^{11/} The range is surprisingly wide. In Mexico, for example, 30 different sizes are manufactured for passenger cars, each of which may be of 6 or 4 layers and with white or black walls. 19 different models of lorry tyres are produced, each of which is available in different types according to the number of layers, tread, etc.

factories of this kind in operation. There are two in Colombia, one manufacturing 170,000 and the other 25,000 units annually.^{12/} Cuba has two with a total capacity estimated at 170,000 tyres. In 1954 they produced 104,000 tyres and they appeared to be operating above the break-even point.

In 1947, there were 57 rubber-tyre manufacturers in the United States ^{13/} of which the majority (16) employed from 1,000 to 2,500 workers, 13 from 1 to 250 and 13 more than 2,500. This shows that, from the point of view of size, the tyre industry qualifies as a "medium large" industry.^{14/}

It should be stressed that the terms "small" and "medium" apply to conditions in industrialized countries. Capital requirements, however, are not excessive for Central America. It now seems that to be of economic size a plant, which may be too large for any single country, would have to be established as a regional factory.

Thus it may be assumed for the purposes of this study that a factory with the capacity to produce 400 tyres daily constitutes an economic unit under Central American conditions. This is equivalent to an annual output about equal to the consumption of locally manufactured tyres postulated for 1957.

If the previous hypotheses are valid (and they should be verified by means of a complete survey), it would seem that, from the point of view of capacity, there is a market large enough for the establishment of a Central American tyre factory.

^{12/} International Bank for Reconstruction and Development, Bases para un Programa de Desarrollo de Colombia, 1950. According to another source, the smaller factory produces as many as 70,000 tyres annually.

^{13/} United States Department of Commerce, Census Bureau, Annual Survey of Manufactures: 1949 and 1950, Washington 1952.

^{14/} This conclusion does not coincide with the results of previous surveys - carried out in the United Kingdom and the United States on the basis of 1929 and 1930 data - according to which tyre manufacture should be classified among the "large" industries. It is possible that since the latter year the introduction of modern methods may have made it economic to produce on a smaller scale.

The value added by manufacture in the United States tyre industry is 44 per cent.^{15/} Given the fact that in 1955 Central America's imports of passenger car and lorry tyres, excluding inner tubes, were valued at 5.7 million dollars, if half or 2.85 million had been manufactured in the region, the gross product would have increased by 1.25 million. A considerable portion of this value could have constituted a saving in foreign currency. The increment of the gross product is still more significant in the light of consumption estimates for 1957 and 1965. At 1955 prices,^{16/} consumption in both years will reach 7.2 and 18.7 million dollars respectively. If half of this value is accounted for by regional production, the value added in each case will be 1.6 and 4.1 million dollars.

The problem of raw materials presents several aspects. It is reasonable to assume that natural rubber will be imported from the Far East. This in itself constitutes no disadvantage, since most factories need to import rubber. The weight of the raw materials is virtually the same as that of the finished product. On the other hand, transport is less costly for raw materials than for finished products on account of the smaller volume to be handled since tyres are a very bulky cargo in relation to their weight. This fact tends to favour Central American manufacture.

Another factor which must be kept in mind is the possibility of producing natural rubber in Central America. As a rule Central American rubber prices cannot compete with the eastern product. Yet in periods of high prices or in wartime, when foreign supplies are uncertain, local production would be justified. This is a safeguard which many other countries lack.

Central America's geographic position is advantageous with respect to raw material sources. The main consumer centres are on the Pacific

^{15/} United States Department of Commerce, Annual Survey of Manufactures: 1949 and 1950, op.cit.

^{16/} In these rough estimates, import figures do not include freight charges to Central America.

side, and Asian rubber could be shipped directly, or if necessary, transshipped in Panama.

Another problem which merits some attention is the distribution of tyres from a central point within the region. On the assumption that the factory site will be chosen with this end in view, transport costs as a whole would not be higher - and might even be lower - than those prevailing for tyre shipments from Europe and the United States.

The previous analysis would seem to show that the establishment of a Central American industry is feasible and that high priority should be given to a more detailed study of this subject.

(c) Other considerations concerning a prospective Central America tyre and inner-tube industry

Raw rubber is a plastic material, that is, it is mouldable and sticky. It absorbs water and is soluble in many organic solvents. Manufacture is based on the fact that the properties of crude rubber change when it is mixed with sulphur and heated. Plasticity becomes elasticity, that is, the material returns to its original shape after being distorted. Processed rubber becomes water repellent and insoluble in many solvents. This process is called vulcanization.

Apart from sulphur and sulphur compounds, many other materials are used in the vulcanization process to produce specific properties: accelerators to reduce vulcanization time; anti-oxidizers to prolong the life of rubber; softening and hardening agents; reinforcing pigments like lamp black and zinc oxide to impart greater resistance; colouring pigments, etc. Furthermore reconstituted rubber from old rubber goods can also be added. Each use of this material requires a different formula.

Tyre manufacture involves the following operations and processes: (i) mechanical grinding of the rubber in mills; (ii) mechanical addition of ingredients in the mill; (iii) impregnation of cords with the rubber compound in a calender press; (iv) combining the impregnated material with other rubber materials, in the rough shape of a tyre, in tyre-building machines; and (v) vulcanization under heat and pressure.

In manufacturing inner tubes, the rubber compound is shaped into tubes by extrusion. The endless tube is cut into sections; the ends

/are sealed

are sealed together and the valve is fitted. They are then vulcanized in the same way as tyres. Modern tyre manufacture is mainly automatic. Tyre-shaping machines and grinders as well as mixing, cutting and many other operations are controlled by instruments. It is not considered necessary to invest additional capital in automation under Central American conditions. In many countries, these operations are carried out adequately by hand.

When tyre manufacture has begun, the factory could use its facilities to produce other rubber goods, such as transmission belts, garden hose and all kinds of rubber sheeting and floor coverings. It does not seem advisable, however, to go in for this kind of production from the very beginning.

Cost distribution in Mexico's rubber industry in 1949 was approximately as follows:

	<u>Percentages</u>
Raw materials	63.3
Wages and salaries	18.3
Miscellaneous costs	<u>18.4</u>
Total	100.0

Mexican figures were preferred to United States data because conditions in Mexico present a closer similarity to those in Central America. The share of raw materials in total costs is higher in Mexico because imports are relatively more expensive. In the United States, raw materials account for only about 33 per cent of costs. Distribution charges in Mexico account for 20 to 25 per cent. In Central America the cost of labour may represent a somewhat higher percentage than in Mexico, while distribution costs may rise to 33 per cent owing to transport difficulties.

A factory with a daily output of 400 tyres would require about 2.5 million dollars in fixed investment, on the assumption that part of the heavy equipment - calender rolls, for example - will be bought second-hand. As previously stated, 100 men per shift would be employed, or a total of 300. In view of high distribution costs, the factory should be situated

/strategically so

strategically so as to cover the largest number of Central American markets as cheaply as possible. This means that no attempt can be made to situate the factory until the following factors have been determined: supply facilities and cost of raw materials; distribution facilities and costs (by road, rail and sea) for finished products; and water and energy supply conditions.

The foregoing considerations seem to confirm the need to carry out a definitive study on the establishment of a Central American factory to produce tyres and inner tubes.

4. Glass containers

Consumption of glass containers in Central America rose from 4,705 tons in 1947 to 8,980 tons in 1953 and 8,033 tons in 1954, when 1.3 million dollars were spent on such imports (see table 9). These are only rough aggregates since tariff specifications vary considerably from one country to another. The real figures, however, must lie in this order of magnitude. The beer and soft drinks industries are the main consumers of glass containers, absorbing an estimated 60 per cent of the total.

Apparent consumption grew at an annual rate of about 10 per cent in 1947-54 and at a slightly higher rate (12 per cent) in 1937-54. On the hypothesis that future consumption will expand at an average half-way between the two rates mentioned, consumer requirements will reach 11,000 tons by 1957 and 25,000 tons by 1965. At 1954 prices, such volumes are equivalent in value to 1.7 and 3.9 million dollars respectively. The growth of the beer and soft drinks industries also points to such a development pattern. In Nicaragua, for example, beer production expanded from 18,350 hectolitres in 1946 to 30,082 in 1953, which is equivalent to an aggregate increment of 64 per cent or about 7 per cent annually. Consumption of soft drinks is estimated to increase at an annual rate of 16 per cent. It is therefore reasonable to expect that in the coming years, consumption of glass containers will increase by 10 to 12 per cent annually.^{17/}

^{17/} The rapid expansion of the pasteurized milk and edible oil industries will also require increasing amounts of glass containers.

Table 9
CENTRAL AMERICA: IMPORTS OF GLASS CONTAINERS

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(Tons)							
Costa Rica ^{a/}	450	447	913	558	256	534	2.146	387
El Salvador ^{b/}	1.406	3.295	1.149	1.992	1.984	2.173	2.535	1.939
Guatemala	1.867	2.101	1.231	1.373	2.243	1.569	1.684	2.819
Honduras	982	1.162	350	748	842	1.846	1.618	1.251
Nicaragua ^{c/}	-	-	-	323	619	1.103	997	1.637
Total	4.705	7.005	3.643	4.994	5.994	7.225	8.980	8.033
	(Millions of dollars, c.i.f.)							
Costa Rica ^{a/}	64	64	100	58	32	79	423	54
El Salvador ^{b/}	176	511	220	340	363	503	515	446
Guatemala	163	241	141	155	269	196	190	324
Honduras	89	122	44	176	83	209	135	167
Nicaragua ^{c/}	-	-	-	48	115	154	158	264
Total	492	938	505	777	862	1.141	1.421	1.255

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

- a/ Comprising bottles for beer and soft drinks, except in 1953 when other glass containers, and stoppers were included.
- b/ Includes jars, bottles and flasks, pots and similar articles.
- c/ Includes jars, bottles and flasks.

A Central American industry could manufacture all the bottles for beer and soft drinks, which account for 60 per cent of total imports, and perhaps half of the remaining containers. In other words, a regional industry could cover 80 per cent of requirements. On this assumption, local production could supply about 1.4 million dollars' worth of containers by 1957 and 3.1 million by 1965.

The value added in the United States glass industry fluctuates around 58 per cent.^{18/} It is therefore to be expected that as a result

^{18/} United States Department of Commerce, Annual Survey of Manufacturers: 1949 and 1950, op.cit.

of the production of containers in Central America, the gross product will increase by 0.8 million dollars in 1957 and 1.8 million in 1965, with the resultant savings in foreign currency.

Bottle glass contains three main ingredients: silicon sand, limestone and soda ash (sodium carbonate). Abundant deposits of limestone are available in Central America. No deposits of silicon sand suitable for glass manufacture ^{19/} have yet been found. This material, as well as soda ash, must be imported, but this does not necessarily constitute a serious drawback. Mexico's glass industry, for instance, imports both raw materials and still produces at lower prices than in the United States.

The general characteristics of a glass container industry are not unfavourable. Total fixed capital requirements as well as investment in machinery and equipment can be classified in the "medium" bracket. The number of skilled workers required is also "medium". In the United States (1947), of a total of 87 factories 32 employed less than 250 workers and 26 less than 500, which proves that the size of the industry is also "medium".

The minimum size of a glass container factory is determined by the capacity of its machinery to manufacture bottles. A Central American plant should be equipped with a very flexible machine which could produce very different kinds of bottles. A single machine of such a type could produce 2,500 beer bottles per hour, which amounts to 60,000 bottles in three daily shifts. With an average weight per bottle of 500 grammes, daily consumption of glass would be 30 tons. The glass furnace should therefore produce 30 tons daily, equivalent to the minimum economic size of the factory.

It was stated earlier that local manufacture should account for 80 per cent of market requirements. If consumption totals 11,000 tons in 1957, the potential market for locally produced glass containers would be about 8,800 tons or 30 tons daily. It is evident that the

^{19/} The sand should not contain impurities, particularly ferrous oxide.

consumption forecast for 1957 would justify the operation of a minimum-sized glass bottle factory. In fact, the plant should be built so that its minimum capacity could be more than doubled to meet the greater consumption foreseen for 1965.

Bottle manufacture comprises the following processes and operations:

(i) Melting of ingredients for the manufacture of glass. Traditionally this operation takes place in large furnaces built so that part of the heat used for melting is recovered. Initial investment and maintenance costs are very high. The modern trend is to replace such furnaces by so-called "unit melters", which are small furnaces without heat recovery devices but with a high melting capacity. Fuel costs are about 15 per cent higher than in the case of traditional furnaces, but investment and maintenance costs are considerably lower. This method would also enable the plant to install a second unit melter when production expands.

(ii) Moulding: an operation carried out with automatic machines which shape the glass in a mould and make the cavity by applying air pressure.

(iii) Tempering: an operation carried out in a continuous furnace, which consists in keeping the bottles at a specific temperature for a given time and then gradually cooling them. The purpose is to reduce the internal tensions produced during the moulding process.

(iv) Finishing: polishing of rough edges, cleaning, etc. The distribution of costs may be roughly as follows:

	<u>Percentages</u>
Raw materials	35
Wages and salaries	25
Fuel	7
Maintenance, etc.	10
Depreciation	15
Packing	5
Other expenses	3
Total	<hr/> 100

A plant which is not highly mechanized, with a furnace producing 30 tons of glass daily, requires about 70 workmen. Fixed investment for such a factory can be estimated at 500,000 dollars. However with

judicious planning and purchases the figure might be reduced considerably.

On the basis of available information, it would seem that the establishment of a glass container factory is feasible. It would be advisable to carry out a more detailed study in order to determine present and future consumption by types and sizes, raw material supplies and site factors as well as to draw up projects, estimates and specific plans for a factory.

5. Biological drugs and ampoules

It is generally admitted that Central America requires a wide range of biological products for its livestock industry. This need is not reflected in real consumption ^{20/} on account of two factors: (a) the high cost of imported drugs which makes their use prohibitive for most livestock raisers, and (b) lack of experience among livestock raisers in the diagnosis and treatment of animal diseases.

The above-mentioned lack of experience can only be remedied by expanding agricultural extension services. The possibility of eliminating the first factor is of great interest to Central America. During the first session of the Regional International Organization of Agricultural Health Services, held in July 1955 in Guatemala, a resolution was adopted recommending that a survey should be carried out to determine the possibilities of producing biological drugs for veterinary use in the individual countries either jointly or separately.

At a later date, the Organization considered ^{21/} that consumption of veterinary drugs in Central America had probably totalled 1.7 million doses in 1955 and that, because of the inadequacy of the consumption level and of competition from outside the area, it seemed prudent to initiate the manufacture of biological drugs on an experimental scale only, by using the veterinary facilities available in Central America, each country specializing in the manufacture of one or two vaccines.

^{20/} No information is available on imports or production.

^{21/} See this Organization's progress report (III-OIRSA/G/12), 7 July 1956.

(a) Potential consumption of biological drugs

When an attempt is made to investigate the possibility of manufacturing biological products in Central America, the first difficulty is how to determine the potential volume of production in the light of present estimated consumption and of future requirements once animal health services are expanded and favourable quality and price conditions prevail. The data presented in this report are compiled on that basis.

Table 10 gives an estimate of Central America's cattle population.

Table 10
 CENTRAL AMERICA: CATTLE POPULATION, 1952
 (Thousands of head)

Country	Number of head	Cows and young animals for replacement in the main dairy areas	Beef-cattle in other areas	
Costa Rica	680.0	140.0	540.0	(97) ^{a/}
El Salvador	825.4	127.0	698.4	(230)
Guatemala	902.9	220.0	682.9	(206)
Honduras	1,094.0	103.0	991.0	(295)
Nicaragua	1,182.0	125.0	1,057.0	(345)
Total	4,684.3	715.0	3,969.3	

Source: United Nations Food and Agriculture Organization, Estudio de los aspectos técnicos de la industria ganadera en Centroamérica. (FAO/55/7/4320).

^{a/} The figures in parentheses show the estimated number of cows producing milk for the local market and for the manufacture of cheese and butter.

According to the figures for 1952, there are about 715,000 head of dairy cattle and about 5 million head of beef cattle. It may be assumed that 50 per cent, or 367,000 head, of the dairy cattle will be treated with 5 doses annually,^{22/} totalling 1,790,000 doses per year.

^{22/} An average dose of 5 cubic centimetres annually for each of the five main diseases.

In the case of beef cattle, only 25 per cent, or 990,000 head, could be treated with 3 doses annually,^{23/} which totals 2,970,000 doses per year. In round figures, potential consumption can be estimated at 5 million doses annually.

Imports of biological drugs for human use are shown in table 11. Although enough data are not available to compile a continuous series, it is evident that apparent consumption in 1954 totalled about 2 million dollars. To judge from Costa Rican statistics for 1953-54, a third of this total - 660,000 dollars - was spent on penicillin and the rest on bacteriological products, serums and vaccines, including a small proportion of antibiotics other than penicillin.

Table 11
 CENTRAL AMERICA: IMPORTS OF BIOLOGICAL DRUGS FOR HUMAN USE

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(T o n s)							
Costa Rica <u>a/</u>	89	79	48	32	60	42 ^{b/}	94	51
El Salvador <u>c/</u>	...	...	...	...	...	...	7	10
Guatemala	18	25	22	33	41	47	44	49
Honduras <u>d/</u>	5	10	6	7	5	7	4	2
Nicaragua	...	...	...	57	58	104	111	122
	(Thousands of dollars, c.i.f.)							
Costa Rica	485	393	311	278	581	397 ^{b/}	749	417
El Salvador	...	...	...	...	...	...	73	93
Guatemala	203	319	388	380	552	668	586	691
Honduras	9	22	15	17	17	16	15	16
Nicaragua	...	...	...	339	459	592	699	773

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

a/ Including penicillin.

b/ Including botanical, organic and inorganic drugs which on an average accounted for 36.2 per cent of total imports and 30.9 per cent of the import value in 1949-51.

c/ Bacteriological products, serums and vaccines were included only after 1953.

d/ Including veterinary drugs.

^{23/} An average dose of 5 cubic centimetres annually for each of the three main diseases.

At current import prices for penicillin,^{24/} 660,000 dollars would represent the consumption of about 1,000,000 million units annually, or 2,700 million units per day. Penicillin requirements may be much greater since potential consumption may be restricted on account of relatively high prices.

According to the Industrial Development Section of the United Nations Technical Assistance Administration, which has assisted in the planning and installation of penicillin factories in many parts of the world, a population of 10 million inhabitants consumes an estimated 10,000 to 15,000 million units daily. This would seem to indicate that the demand for penicillin in Central America might increase considerably when the product becomes more readily accessible through lower prices to large sectors of the population.

The manufacture of biological products for human and veterinary uses may be undertaken jointly or independently. In either case, however, it is not economic unless adequate containers (bottles, flasks or ampoules) are also produced, because imports of such containers would be too expensive since they are bulky and require special packing. It will later ^{25/} be seen that the manufacture of containers is feasible in Central America. The aspects of drug manufacture will first be dealt with on the assumption that suitable containers are available locally.

(b) Manufacture of biological products for veterinary use

As already stated, a very rough estimate of the future demand for biological products for veterinary use - on the hypothesis that an expanded animal health programme will be implemented - could be as much as about 5 million annual doses. In the United States the average price per dose is about 7.5 dollar cents. The volume of demand would therefore equal 375,000 dollars. On the other hand, it is true that at such a price level consumption would be negligible. The wholesale price for good quality biological products intended for livestock manufactured in

^{24/} A rough average for packed penicillin is 6.6 dollar cents per each 100,000 units.

^{25/} See point (d) in this section.

Mexico ranges from one to two dollar cents per dose. At the latter price, Central America's potential annual consumption would fluctuate between 50,000 and 100,000 dollars.

The question arises whether an industry for the manufacture of vaccines, serums, bacterins, etc. could be established on a production basis of 5 million doses at a price level low enough to effect the consumption of this volume. A laboratory for the production of biological drugs must be adequately equipped to prepare high quality products. This involves investment not only in appropriate production equipment but also in control facilities and skilled professional staff. Control facilities and skilled staff would be just as necessary in a relatively small-sized plant as in large-scale production. Animals, stables, pastures, etc. are also necessary. Fixed investment for a laboratory of the size indicated above, excluding the livestock and other facilities required, is estimated at between 50,000 and 100,000 dollars.

If a Central American laboratory could produce so cheaply that the average price was 1 to 2 dollar cents per dose, annual sales would reach a value of 50,000 to 100,000 dollars. As the plant would be rather small, however, this is not likely to happen.^{26/} Conversely, if prices were very high, consumption would be curtailed. It is necessary therefore to delve very thoroughly into the question of probable production costs and the best price level both from the producer's and from the consumers' points of view. Production would face good market prospects if costs could be made substantially lower than the present import price level and not much higher than the price of 1 to 2 dollar cents per dose already mentioned. It should also be borne in mind that even veterinary medicines are sold on the basis of a product's prestige and that the buyer's confidence in a trade-mark plays a major role in his choice of brands. A new laboratory may not win such confidence for many years.

^{26/} Two highly qualified specialists alone may cost as much as 24,000 dollars annually.

In the light of these preliminary considerations, therefore, it seems advisable to examine the following alternatives, in addition to the possibility of establishing an independent laboratory for the production of veterinary biological drugs:

(i) Utilization of established veterinary laboratories in Central America for the production of a number of veterinary biological products on an experimental scale and with specialization, with a view to eventual small-scale commercial production in accordance with the recommendations of the International Regional Organization of Agricultural Health Services.

(ii) Arranging with a well-known drug company for the establishment of a branch factory in Central America. This arrangement would reduce the investment required since the main office could assume responsibility for a major part of the control operations, which are very costly. Thus it would be unnecessary to invest in some of the more expensive equipment - like hydrolyzation equipment - and some semi-finished products could be imported in bulk. The volume of sales would expand because the line would include some products which are consumed in such small quantities in Central America that it would be uneconomic to produce them in the area but which could be imported from the main factory in bulk and packed locally. Foreign experts would be sent as required and would not constitute part of the permanent staff. Under an arrangement of this kind the problem of creating confidence in a line of unknown products would not arise.

(iii) Establishing a packing and distribution organization to import established brands in bulk from the least expensive source. In the interest of greater efficiency, the organization would buy wholesale in order to enjoy the advantages of standard quality and of discounts for large purchases, but it would keep stocks and arrange distribution in each of the main consumer areas.

(c) Manufacture of biological products for human use

The manufacture of vaccines, serums, antitoxins, etc. for human use does not differ essentially from the preparation of veterinary products nor does it require different equipment. If a laboratory for

/the production

the production of veterinary products were established -- either independently or as a branch of some foreign company -- some basic biological drugs for human use could also be manufactured, for instance for diphtheria, smallpox, tetanus and hydrophobia. From the economic aspect, it does not seem expedient to establish a separate factory for the production of biological drugs, vaccines and serums exclusively for human use in Central America. Penicillin manufacture is another matter and could be initiated independently so long as a guaranteed market exists for the output of a minimum economic-sized factory. As was already indicated, a population of 10 million inhabitants could consume from 10,000 to 15,000 million units daily. According to the experience of the Industrial Development Section of the United Nations Technical Assistance Administration, penicillin plants have operated successfully at widely different capacity levels including the relatively small scale mentioned above. This is possible owing to the fact that small amounts of penicillin can be produced economically as a part-time operation. If, for example, other biological drugs are produced requiring animal and biological tests, equipment for the preparation of clinical products and containers and packing facilities, penicillin can be produced economically on a small scale. This operation demands a high degree of technical efficiency. Conversely, if a plant is established exclusively for penicillin production with its own special services and full-time technical personnel, output capacity must be larger in order to cover operational costs. In a plant recently established in India, for example, it was estimated that output would have to rise to about 30,000 million units daily for the selling price to compete with world market prices for penicillin sold in bulk. It is possible, however, to operate on a smaller scale successfully if the same plant also packs the product in small doses for retail distribution. The high cost of manufacturing penicillin in bulk is offset by the profit obtained from packing.

A penicillin plant capable of producing 10,000 to 15,000 million units daily would cost about 800,000 dollars, although much would depend

/on building

on building costs in the area selected. For successful operation, some of the raw materials must be locally available. It is likely that two of the main raw materials, milk sugar ^{27/} and corn steep water, could be produced in Central America. Solvents for the recovery process, absorbing coal, phosphates, etc. would have to be imported.

The above considerations show that only after detailed study it will be possible to conclude whether penicillin can be produced in Central America, either as an individual project or in combination with the production of other biological drugs. Consideration should undoubtedly be given to the possibility of importing penicillin in bulk, which can be obtained very cheaply and of packing it in Central America. It is significant that Mexico has abandoned the production of penicillin in bulk in favour of the aforementioned system. On the other hand, the United Nations Technical Assistance Administration is building a penicillin factory in Chile, where the population totals less than 10 million, but this factory is linked with other activities which will absorb part of the outlay on services and personnel.

(d) Production of containers

As stated above, the production of biological drugs would be difficult if the containers had to be imported. It is therefore advisable to explore the possibility of manufacturing ampoules, flasks and small bottles locally.

Containers for most biological drugs have to be made of neutral glass. This kind does not produce alkaline reactions in a water solution, which might precipitate the drug. Neutral glass would have to be imported in the form of tubes to feed the machines manufacturing flasks and ampoules.

An ampoule-making machine may manufacture many sizes. The most common are 10 cc (40 to 50 per cent of total output), 5 cc (20 per cent) and 2 cc (15 per cent). An Eisler machine has the following capacity:

^{27/} Obtained from whey.

Size of ampoule (cc)	Hourly output (units)	Weight of production per hour (kgs.)	Total weight ^{a/} of glass (kgs.)
2	850	2.8	3.6
5	500	5.0	6.4
10	420	8.0	10.2

a/ Including 25 to 30 per cent waste.

On the assumption that the machine produces all three sizes in the following proportion: 50 per cent - 10 cc, 25 per cent - 5 cc and 25 per cent - 2 cc, total output for an eight-hour shift would be approximately as follows:

<u>Size</u>	<u>Units</u>
10 cc	2,000
5 cc	1,000
2 cc	1,000
	<u>4,000</u> ^{28/}

This is equivalent to 1.2 million ampoules in a 300 day year, which is the capacity of the machine for all three sizes in the proportions indicated. To obtain a rough idea of the number of ampoules required, it may be assumed that they will all be employed for the saline solution used with penicillin. If the penicillin is packed in 300,000 unit doses, more than 30,000 ampoules would be needed daily for the saline solution accompanying the 10,000 million units estimated as the potential daily consumption of 10 million inhabitants. Therefore, whether penicillin is packed or produced in Central America, the market would be more than large enough to support the economic production of ampoules.

A machine for the manufacture of pharmaceutical containers - up to 50 cc - for crystalline products, vaccines and serums, produces about 800 flasks hourly, or 6,400 daily and 1.9 million annually. Under the

^{28/} In practice a machine would operate for longer periods for each size.

/conditions previously

conditions previously postulated, Central America's livestock population would in future require about 5 million annual doses of vaccines, serums, bacterins, etc. On the assumption that flasks containing 10 doses of 5 cc each were used, annual requirements would total 500,000 flasks of 50 cc approximate capacity. Including the flasks required for crystallized penicillin (30,000 daily or 9 million annually), a total volume of consumption is obtained which, from the point of view of the market, would justify the manufacture of flasks in Central America.

In conclusion, the manufacture of biological drugs for human use is a highly specialized and complex process. Owing to the relatively small size of the Central American markets, the only economic organization would be a flexible one which used its personnel and equipment for the manufacture of a variety of such products. The following two alternatives should be considered: negotiating with a foreign company for the manufacture of such products in Central America, or establishing an independent local enterprise for the purchase, packing and distribution of the products. The manufacture of ampoules and flasks seems feasible and may be economic.

6. Ink and allied products

The production of ink and allied products affords a good example of a small industry which requires relatively little investment and which could supply the entire Central American market. The main products of this industry are: printers' and writing ink, carbon paper and typewriter ribbons.

(a) Printers' ink

Total consumption of printers' ink in Central America during 1954 is estimated at 180 tons (see table 12). In the three countries for which complete data are available, total consumption rose by 61 per cent between 1947 and 1954, or at an average rate of 7 per cent annually. The import value shows no definite trend on account of the fluctuating proportion of newspaper ink, which is the least expensive, in relation to more costly kinds. According to the experience of other countries under similar conditions, consumption of printers' ink will continue to

/expand at

expand at a still higher rate as illiteracy decreases and as a greater number of children receive education. An average rate of increase of 7 per cent will be postulated for the purposes of this report. On this basis, estimated consumption would rise to 220 tons by 1957 and 400 tons by 1966.

Table 12

CENTRAL AMERICA: IMPORTS OF PRINTERS' INK

Year	Costa Rica	El Salvador ^{a/}	Guatemala	Honduras	Costa Rica	El Salvador	Guatemala	Honduras
	(Tons)				(Thousands of dollars, C.i.f.)			
1937	13	...	13	...	7	...	8	...
1938	14	...	15	...	5	...	10	...
1939	19	...	11	...	8	...	8	...
1940	16	...	14	...	7	...	10	...
1941	18	...	16	4	6	...	12	1
1942	18	...	14	6	4	...	7	3
1943	17	...	19	6	10	...	16	4
1944	15	...	16	3	7	...	12	3
1945	23	...	...	6	10	...	...	5
1946	27	...	...	6	12	...	...	5
1947	20	...	35	6	15	...	32	8
1948	21	...	22	7	28	...	20	9
1949	20	...	32	8	16	...	31	8
1950	34	...	42	8	20	...	71	7
1951	32	...	45	9	24	...	45	13
1952	38	...	35	14	25	...	25	21
1953	47	58	36	12	34	36	30	13
1954	34	69	51	13	23	38	41	7

Source: Economic Commission for Latin America, based on Central American foreign Trade Statistics.

Note: Nicaraguan statistics do not record imports of printers' ink separately

a/ Since 1953 imports of printers' ink have been recorded separately.

/On the assumption

On the assumption that 10 per cent of the consumption level would comprise special inks which have to be imported, estimated consumption of locally manufactured printers' ink would total 200 tons in 1957 and 360 tons in 1966.

(b) Writing ink

An estimated 110 tons of writing ink were consumed in 1954 in Central America (see table 13). The aggregate for three countries increased by 24 per cent from 1947 to 1952, which gives an annual rate of 3 per cent, slightly higher than the rate of increase in school enrollment. About 20 per cent of the population is of school age, but only about half, or 10 per cent, actually goes to school.

Table 13
 CENTRAL AMERICA: IMPORTS OF WRITING INK

Country	1947	1948	1949	1950	1951	1952	1953	1954
(Tons)								
Costa Rica	20	13	10	20	20	21	...	27
Guatemala	24	26	17	28	18	23	10	30
Honduras	15	20	7	12	12	24	14	16
Nicaragua	...	...	...	16	9	13	13	16
(Thousands of dollars c.i.f.)								
Costa Rica	8	6	5	10	9	10	...	15
Guatemala	8	9	7	12	9	11	14	14
Honduras	7	8	5	7	7	13	8	9
Nicaragua	...	...	...	9	6	8	9	8

Source: Economic Commission for Latin America, based on Central American foreign trade statistics. No data are available for El Salvador.

On this basis, consumption of ink would be 120 tons in 1957 and 160 tons in 1966; of this amount, about 10 per cent (special inks) would have to be imported, leaving 110 and 140 tons, respectively. Writing ink is imported mainly in glass bottles, which account for two-thirds of the total tonnage. The market for locally produced ink would therefore total 36 tons in 1957 and 46 tons in 1966, or 36,000 and 46,000 litres respectively.

(c) Carbon paper

Consumption of carbon paper in Central America is estimated at about 45 tons for 1954 (see table 14). In four countries consumption has expanded by 85 per cent in seven years, or 9.5 per cent annually. On this basis, consumption would rise to 60 tons in 1957 and 135 tons in 1966; the market for regionally manufactured carbon paper - on the hypothesis that imports cover 10 per cent of requirements - would absorb 54 and 120 tons respectively.

Table 14
 CENTRAL AMERICA: IMPORTS OF CARBON PAPER

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(Tons)							
Costa Rica	4	6	6	6	7	8	...	8
El Salvador	5	7	5	6	10	10	7	10
Guatemala	7	10	9	9	6	8	9	13
Honduras	4	2	4	5	5	7	6	6
	(Thousands of dollars, c.i.f.)							
Costa Rica	9	12	13	11	16	17	...	17
El Salvador	8	13	10	11	22	23	16	23
Guatemala	15	21	19	19	18	19	21	33
Honduras	7	7	13	14	14	21	16	17

Source: Economic Commission for Latin America, based on Central American foreign trade statistics. No data are available for Nicaragua.

(d) Typewriter ribbons

Import statistics for typewriter ribbons are available for Costa Rica only. As a conservative estimate, however, consumption in Central America totalled from 15 to 20 tons in 1954 and is growing at a rate of 2.5 per cent annually on the basis of typewriter imports (see table 15). If these figures are reliable, by 1957 consumption will have risen to 19 tons and by 1966 to 23 tons. Assuming that imports account for 10 per cent, 17 and 21 tons respectively would have to be covered by regional production.^{29/}

Table 15
CENTRAL AMERICA: IMPORTS OF TYPEWRITERS

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(Tons)							
Costa Rica	21	23	18	22	34	24	27	36
El Salvador	22	22	14	26	46	27	31	46
Guatemala a/	40	53	54	44	68	46	57	39
Honduras b/	56	30	17	27	29	40	41	33
Nicaragua	<u>13</u>	<u>9</u>	<u>6</u>	<u>18</u>	<u>8</u>	<u>11</u>	<u>21</u>	<u>27</u>
Total	152	137	109	137	185	148	177	181
	(Thousands of dollars, c.i.f.)							
Costa Rica	93	108	76	100	168	132	152	186
El Salvador	92	104	69	126	229	147	174	241
Guatemala a/	163	248	218	200	294	188	261	173
Honduras	90	191	131	152	236	355	314	315
Nicaragua	<u>72</u>	<u>63</u>	<u>46</u>	<u>151</u>	<u>60</u>	<u>90</u>	<u>161</u>	<u>194</u>
Total	510	714	540	729	987	912	1,062	1,109

Source: Economic Commission for Latin America, based on Central American Foreign trade statistics.

a/ Including typewriters, unspecified portable typewriters with cases; multigraphs, hectographs and other reproduction equipment.

b/ Including spares, accessories, ribbons, etc.

^{29/} If the tonnages are converted into units (at a rate of 16 reels per kilogramme), about 270,000 reels will be produced in 1957 and 335,000 in 1966.

/To sum up,

To sum up, the market for the production of ink and allied products in Central America in 1957 and 1966 would be approximately of the size estimated in table 16.

Table 16

CENTRAL AMERICA: ESTIMATED FUTURE MARKET FOR LOCALLY PRODUCED INKS AND RELATED COMMODITIES

Commodity	1957		1966	
	Tons	Thousands of dollars a/	Tons	Thousands of dollars a/
Printers' ink	200	140	360	250
Writing ink	36	55	46	70
Carbon paper	54	130	120	290
Typewriter ribbon	17	75	21	90

a/ At import prices for 1953-54. The estimate for the production of writing ink includes the value of containers.

On the basis of the previous considerations, a factory starting to operate in 1957 would have the following daily output (300 days a year):

Printers' ink	650 kilogrammes
Writing ink	120 litres
Carbon paper	180 kilogrammes
Typewriter ribbons	1,000 reels

A factory of this size is considered to be economic. The manufacturing process for different products requires the same machinery for several operations. Pigments are ground and mixed with a dispersion agent. They are diluted to make writing ink, mixed with wax and applied to paper for carbon paper and spread on fabric to make typewriter ribbons.

Such a factory would require fixed investment of between 70,000 and 80,000 dollars with working capital and stocks valued at approximately 80,000 dollars. From 25 to 35 workers would be required. Under good market conditions, investment might be recovered over a period of 6 to 8 years.

/Choice of

Choice of site would depend on facilities for transporting raw materials and distributing finished products. In the early stages at least, most raw materials would have to be imported; in time, some, like resin, could be locally produced at an acceptable standard of quality. The value added is so high in this industry (50 to 52 per cent from 1949 to 1950 in the United States) that the disadvantages of importing raw materials might be offset. Cuban and Mexican industries of this kind operate successfully with imported raw materials.

A temperate climate is preferable, because under tropical conditions refrigeration is essential for the application of wax to carbon paper and for storage.

7. Welded tubing

No definite trend is observable in the apparent consumption of welded tubing in Central America between 1947 and 1954 (see table 17). This may be due to the fact that during the period in question supplies were occasionally restricted and the delivery periods were long so that purchasers accumulated stocks out of proportion to immediate demand. Tubing, however, constitutes an important item in aggregate Central American purchases. An annual average of 23,000 tons, worth 3.6 million dollars, was imported from 1947 to 1952.

If a Central American tube factory were to be established, it would probably specialize in the 1/2 to 4 inch sizes, larger kinds being imported. According to Guatemala's import statistics (which report separately on tubing under and over 3 inches), the smaller sizes accounted for 55 per cent of total imports. If 4 inch tubing is included, the proportion might rise to 65 per cent. If this figure is applied to Central America's average consumption, it may be assumed that out of 23,000 tons of tubing 15,000 tons consisted of 1/2 to 4 inch sizes; if 20 per cent of this volume had to be imported for those areas which will be unfavourably situated with respect to the regional factory, the market would absorb 12,000 tons of locally produced tubing annually.

Table 17

CENTRAL AMERICA: IMPORTS OF IRON AND STEEL TUBING

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(Tons)							
Costa Rica	18,904	2,871	3,821	1,456	2,862	3,073	5,686	5,075
El Salvador	521	1,190	1,280	1,252	1,937	1,251	1,276	3,021
Guatemala	2,901	2,028	4,782	5,894	3,079	2,882	6,536	4,139
Honduras	7,406	14,000	9,000	6,000	8,000	26,000	16,008	2,925
Nicaragua	1,005	712	1,133	705	898	1,384	1,451	1,628
Total	30,737	20,801	20,016	15,307	16,776	34,600	30,957	16,788
	(Thousands of dollars, c.i.f.)							
Costa Rica	2,769	555	723	310	557	538	1,061	843
El Salvador	159	313	416	306	547	407	334	733
Guatemala ^{a/}	521	472	1,068	982	710	631	1,131	785
Honduras	670	2,301	1,518	912	1,114	2,633	2,604	784
Nicaragua	290	193	327	191	355	480	415	501
Total	4,409	3,834	4,052	2,701	3,283	4,689	5,545	3,646

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

^{a/} Including unspecified pipes and tubes of over and under 3 inches internal diameter. Imports of the latter in tons were as follows:

1947: 2,184; 1948: 1,185; 1949: 3,548; 1950: 3,164; 1951: 1,784; 1952: 1,059; 1953: 1,938.

Since import series are too erratic to be used as a basis for any conclusions or projections, no annual increment in future consumption has been taken into account. Consumption of tubing is undoubtedly linked to building activities and therefore cement consumption could serve as a guide as regards future demand for iron and steel tubing. Apparent cement consumption seems to rise at a rate of 10 per cent annually; but in the absence of definite figures, it seems preferable to work on the basis of the above mentioned minimum consumption, namely 12,000 tons annually. This is a reasonable volume for a

/tube-manufacturing

tube-manufacturing unit. Machines for making 1/2 to 4 inch tubing can manufacture 40 tons per 8 hour shift. This machinery requires considerable ancillary facilities for cutting, cleaning, etc. and, according to the site, it may also need its own generating equipment on account of its high rate of energy consumption.

Water pipes, particularly in hot climates, must be galvanized to make them corrosion-proof. This may be done through electrolysis or immersion in smelted zinc. The electrolytic process requires much less investment, but the tubing can only be coated on the outside. High-grade tubing is therefore given a "hot bath" i.e. a zinc bath to protect both the inside and the outside of the tube.

Fixed investment for a plant of this size would be distributed more or less as follows:

	<u>Dollars</u>
Equipment for the manufacture of tubing (including auxiliary machines and a 500 kW generator)	320,000
"Hot bath" galvanization plant (25 tons per shift) ^{30/}	80,000
Buildings	<u>70,000</u>
Total fixed investment	470,000

An alternative solution could also be considered, since about 75 per cent of the normal sales volume comprises 1/2 to 2 inch tubing (including conduit tubes) and 25 per cent is made up of 2 to 4 inch tubing. ^{31/} Since cheaper equipment can be used to manufacture 1/2 to 2 inch tubing, a careful study should be made of the relative advantages of specializing in this smaller range of production as compared with the advantages of a larger output to supply a greater proportion of the market, for which more costly equipment would have to be installed.

^{30/} Working in two shifts to handle the entire output of the tube-producing machine.

^{31/} According to the experience of Mexico's iron and steel tubing industry.

8. Fishery industry

Strictly speaking, the fishery industry cannot be classified among Central America's potential integrated industries. It is necessarily an industry of scattered units, and the perishability of its products (unless they are preserved) restricts the activities of each production unit. But there are some important aspects which can better be dealt with on a regional level and they will be discussed in this report. The main characteristic of this industry, and one of the reasons why it is included in the report, is that it can operate entirely with local raw materials which are plentiful and easily utilized.

Two salient and conflicting characteristics are observable in Central America's fishing industry: on the one hand, fishery resources abound on the Pacific and Atlantic seaboard, and, on the other, per capita consumption in Central America is very low.

A great deal of information is available on the first aspect. The United States Department of the Interior ^{32/} carried out an extensive survey and other reports are available for individual Central American countries. All these studies show that, although the fishery resources of the region are not remarkable, a fishery industry on a much larger scale than at present could be established, able to satisfy a higher level of regional consumption. The resources available also appear sufficient for an industry producing tinned and salted fish, fish meal and fish oil, leaving an exportable balance. The Pacific coast seems to be a relatively more productive fishing area than the Atlantic side, but the latter should by no means be disregarded in connexion with fisheries development.

Despite this wealth of potential foodstuffs and industrial raw materials, Central America's fishery resources have hardly been touched. Table 18 shows fish imports, exports, production and apparent consumption in Central America.

^{32/} See Fiedler, Reginal H., et al.: The Fisheries and Fishery Resources of the Caribbean Area, United States Department of the Interior, Washington, 1947.

Table 18

CENTRAL AMERICA: APPARENT CONSUMPTION OF FISH
 (Tons)

Year	Imports	Exports	Production	Apparent consumption
1945	655	884	1,727	1,498
1946	598	1,613	2,452	1,437
1947	1,458	3,222	4,311	2,547
1948	1,360	3,771	5,059	2,648
1949	2,259	4,211	5,469	3,517
1950	3,123	4,602	5,861	4,382
1951	2,209	1,425	2,786	4,270
1952	2,547	1,107	2,470	3,910
1953	3,350	412	1,739	4,677
1954	3,867	468	...	...

Source: For imports and exports: Central American official trade statistics; for production: FAO, Yearbook of Fishery Statistics, 1952-53. Costa Rica's production was calculated by adding the catch estimated to have been consumed in the country to the export figures.

Although fish consumption rose from 1,498 tons in 1945 to 4,677 tons in 1953, at an average annual rate of about 15 per cent, the latter figure implies a per capita consumption of only 0.54 kilogrammes annually. This level of consumption merits some examination.

(i) A per capita consumption of 0.54 kilogrammes does not reflect the true state of affairs, since Costa Rica's consumption (1.3 kilogrammes in 1947) is disproportionately high for Central America, while Guatemala, Honduras and Nicaragua (0.1 to 0.2 kilogrammes in 1947) register much lower levels.

(ii) Consumption figures vary considerably within each country. Some sectors of the population consume large amounts of fish, while others do not consume fish at all.

(iii) A small consumption of fish does not necessarily imply low nutritional levels, since animal proteins may be obtained from meat.

/But aggregate

But aggregate consumption of animal proteins in Central America is considered to be very inadequate and hence it would be desirable to increase fish consumption.

(iv) The imports shown in table 17 refer mainly to tinned and salted fish. If such imports were replaced by home products, local fish production would have to expand approximately to twice the tonnage imported in order to yield the same food value.

Table 19 shows comparative figures for per capita fish consumption in selected countries. According to the table, many countries, under conditions which do not differ appreciably from those prevailing in Central America, register much higher consumption levels.

Table 19

CONSUMPTION OF FISH AND FISH PRODUCTS IN SELECTED COUNTRIES

(Kilogrammes ^{a/} per capita per annum)

Country	Pre-war ^{b/}	1947
Latin America:		
Argentina	4.5	3.8
Bolivia	0.4	0.4 ^{c/}
Brazil	3.0	2.9
Chile	7.2	11.2
Colombia	0.3	0.3
Costa Rica	1.4	1.3
Cuba	5.2	5.9 ^{d/}
Dominican Republic	1.4	1.4 ^{e/}
Ecuador	0.8	0.8
El Salvador	0.1	0.8
Guatemala	0.1	0.1
Haiti	1.6	0.7
Honduras	0.2	0.1
Mexico	0.4	1.7 ^{c/}
Nicaragua	0.2	0.2
Panama	3.2	2.1 ^{c/}
Paraguay	0.3	0.3
Peru	0.9	3.1 ^{f/}
Uruguay	1.9	2.3
Venezuela	5.9	14.9 ^{c/}
Other countries:		
Jamaica	...	40.0 ^{g/}
Norway	...	25.0 ^{g/}
United States	...	5.0 ^{g/}

Source: FAO, Fisheries Bulletin and Yearbook of Fishery Statistics (selected years), and United States Department of the Interior, The Fisheries and Fishery Resources of the Caribbean Area.

^{a/} Most of these figures are provisional estimates. Subsistence consumption is not included. Data on salted or tinned fish, etc. have not been converted.

^{b/} Mainly 1935-39 average.

^{c/} The production figure was used for the period April 1948 to March 1949.

^{d/} 1947-48.

^{e/} Imports in 1947 were higher than usual.

^{f/} Since tinned fish exports have not been converted into fresh fish equivalents, the indicated volume may be too high.

^{g/} Estimate.

/Among the

Among the Central American countries, Costa Rica is by far the main consumer, exporter and importer of fish products (see tables 20, 21 and 22), although a remarkable increase in consumption was observable from 1945 to 1953 in El Salvador. The most significant conclusion to be derived from the tables, however, is that aggregate fish imports represent a value of 1.7 million dollars despite the low level of consumption.

Table 20
 CENTRAL AMERICA: APPARENT CONSUMPTION OF FISH^{a/}

Country	1945		1953	
	Tons	Percentage	Tons	Percentage
Costa Rica	553	36.9	1,613	34.5
El Salvador	278	18.6	1,168	25.0
Guatemala	350	23.4	1,024	21.9
Honduras	155	10.3	552	11.4
Nicaragua	162	10.8	340	7.2
Total	1,498	100.0	4,677	100.0

Source: Economic Commission for Latin America.

a/ Provisional estimate.

Table 21
 CENTRAL AMERICA: IMPORTS OF FRESH AND PRESERVED FISH

Country	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
	(T o n s)									
Costa Rica	254	263	578	485	568	808	722	871	1,013	1,083
El Salvador	78	85	276	198	731	942	855	637	806	1,103
Guatemala	200	145	373	422	724	996	869	582	825	899
Honduras	61	66	96	182	166	238	321	322	463	510
Nicaragua	62	39	135	73	70	139	142	135	243	272
Total	655	598	1,458	1,360	2,259	3,123	2,909	2,547	3,350	3,867
	(Thousands of dollars, c.i.f.)									
Costa Rica	96	145	287	278	256	266	248	407	517	451
El Salvador	32	59	175	117	317	351	420	340	454	538
Guatemala	48	77	253	250	333	295	284	227	316	334
Honduras	28	39	82	146	122	132	151	166	242	258
Nicaragua	37	39	143	67	58	95	77	83	147	142
Total	241	359	940	858	1,086	1,139	1,180	1,223	1,676	1,723

Source: Economic Commission for Latin America, based on Central American foreign trade statistics. Comprises items 031-01-01, 032-01-08 of the NAUCA

Table 22
CENTRAL AMERICA: EXPORTS OF FRESH AND PRESERVED FISH

Country	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
<u>(T o n s)</u>										
Costa Rica	877.7	1,601.8	3,210.9	3,758.9	4,169.0	4,551.0	1,386.2	1,069.9	339.0	395.0
El Salvador	0.3	0.3	0.7	0.5	-	1.0	1.8	11.1	38.1	28.5
Guatemala	-	-	-	-	-	0.3	-	0.1	1.1	2.1
Honduras	5.5	11.0	9.5	11.2	42.3	49.6	37.4	25.8	27.5	40.9
Nicaragua	-	-	-	-	-	-	-	0.3	3.0	1.1
Total	883.5	1,613.1	3,221.1	3,770.6	4,211.3	4,601.9	1,425.4	1,107.2	408.7	467.6
<u>(Thousands of dollars, c.i.f.)</u>										
Costa Rica	297.9	513.9	921.2	808.1	-	64.3	299.5	238.9	98.9	175.0
El Salvador	0.1	0.3	0.2	0.1	-	0.1	0.3	0.6	4.5	5.8
Guatemala	-	-	-	-	-	-	-	-	0.4	1.4
Honduras	0.7	2.0	2.2	2.6	6.2	7.4	9.8	5.5	9.1	16.2
Nicaragua	-	-	-	-	-	-	-	0.2	2.6	1.4
Total	298.7	516.2	923.6	810.8	6.2	71.8	309.6	245.2	115.2	199.8

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

/When demand

When demand is extrapolated on the basis of apparent consumption in 1945-53, according to the minimum squares method, the figure of 10,000 tons is obtained for 1965. By that year Central America's population will have grown to 12 million, and per capita fish consumption will have reached the level of 0.83 kilogrammes, which is still very low. To develop the fishery industry and raise the standard of consumption, it would be necessary to eliminate numerous obstacles, such as: (a) the small size of the industry, which uses inadequate methods and equipment; (b) lack of adequate distribution channels; and (c) insufficient consumption.

In 1950, the number of fishermen in the whole of Central America totalled 2,230, which means that each one supplied fish for almost 4,000 inhabitants. During the same year production per fisherman amounted to 2.6 tons. Most of the fishing fleet is made up of canoes. Low productivity in this industry is mainly attributable to inadequate fishing methods and gear, with which it is impossible to exploit the best fishing grounds which often lie far offshore. In addition, during the time it takes a canoe to make one trip, a motor-boat, however small, could make several trips to the fishing grounds. Modern sounding equipment provides complete information about the sea bottom and even indicates the position of fish. But motor boats and modern gear require repair and maintenance facilities and mechanics as well as adequate landing facilities, all of which in turn depend on an active market.

Fish must be preserved by refrigeration, canning, salting or smoking. Refrigeration and the industrial processing of fish are often complementary processes.

Fish on board and fresh fish for local markets is refrigerated; fish waste and export products are preserved by industrial processing. Fish may also be frozen for export. Once the fish has been landed it must be kept at low temperatures and transported to the market in refrigerated lorries or trains. Refrigeration facilities must also be available in sales outlets. Incomplete refrigeration, that is, when refrigeration facilities are available at some but not all stages of

/distribution, is

distribution, is worse than no refrigeration at all. The same standard of efficiency could be obtained in Central America with a smaller investment by using ice-cooled instead of refrigerated lorries and railway trucks. But this requires ice, the high price of which has contributed to the high cost of fish to the consumer.

The surplus catch, or the catch for which there is no local market, can be preserved by canning, salting or smoking. It depends largely on the cost of the containers whether canning is economic. It might be advisable to begin by importing the sides and ends of the tins for assembly in the region.^{33/} In the normal course of fishing operations, inedible fish is often caught which can be converted into fish meal and oil. Each 10 tons of inedible fish can give more than 2 tons of fish meal, with a value of about 100 dollars per ton.

Finally, a sound fishery industry must be based on a stable domestic market. The small size of the Central American market is partly due to traditional eating habits but is also due to the fact that fish being in short supply is much more expensive than meat in most of these countries. Fish prices are as high or higher than in industrialized countries with highly developed fishery industries and a higher purchasing power. High prices are not caused by excessive profits reaped by the producer nor high distribution costs but by the low level of productivity prevailing in the industry.

All phases of the fishery industry are closely inter-connected. None is more important than the others. It is not enough to provide fishing gear; it is also necessary to organize distribution and stimulate consumption.

On account of the complex nature of the problem, it would be very difficult at first to establish a fishing industry on a regional scale. Moreover, only some aspects of the industry lend themselves to integration. Others are strictly national. In regard to the regional aspects, consideration could be given to the building of fishing boats

^{33/} See section 11 "Paints and varnishes" for a more detailed discussion of this question.

equipped with imported engines and instruments, research into the production capacity of fishing grounds and the breeding habits of the species, standardization of fisheries legislation, etc.

The first and most effective step would perhaps be to study the possibility of initiating a pilot project in the most suitable part of the region, where the three main aspects of this industry - fishing, distribution (including preservation and utilization or by-products) and consumption - could be developed jointly. Careful attention should be paid to the size and site of the project so that adequate quantities of suitable species of fish or other sea food may be obtained for consumption without further processing, for the canning industry for the production of by-products and for export. Consideration should also be given to the producing capacity of the fishing grounds, the size and potential expansion of the domestic market, the minimum economic size for canning and fish-meal plants and export requirements.

The project would be useful from the point of view of integration, on account of the experience it would provide for all the countries. If the project were successful, its promoters might establish similar organizations in other parts of the region. In this context, it might be advisable that the project should be financed from the outset with multi-national capital. Costa Rica's attempt to establish a national fishing industry and El Salvador's recent studies on the organization of this industry might also serve as valuable experience.

Subject to a thorough survey by qualified experts, the project described above might be advantageous for Central America and attractive for investors. The purpose of this note is to draw attention to the possibilities of utilizing the untapped resources which surround Central America.

9. Chemical fertilizers

Plants extract substantial amounts of nitrogen, phosphorous and potassium from the soil during their life cycle and these chemicals have to be replaced if soil fertility and yields are to be maintained. Hence, nitrogen, phosphorous and potassium are the main ingredients of

/the so-called

the so-called "ready-mixed" fertilizers, in which varying proportions of these elements are combined according to the crop and kind of soil. When other minerals are lacking in the soil, they are also added to fertilizers.

Present consumption of fertilizers (see table 23) is by no means representative of Central America's requirements. Obviously the 75,000 tons consumed in 1954 are much less than the normal requirements for an area of the size and climatic conditions of Central America. There are about 4 million hectares of land under cultivation in the area. In 1953-54, 7,400 tons of elemental nitrogen ^{34/} were consumed in Costa Rica and 700 tons in Honduras.

Table 23
CENTRAL AMERICA: IMPORTS OF FERTILIZERS

Country	1947	1948	1949	1950	1951	1952	1953	1954
(T o n s)								
Costa Rica	9,002	9,635	10,827	15,803	21,900	15,283	14,478	27,790
El Salvador	6,583	1,606	5,258	9,367	12,387	10,856	8,081	26,656
Guatemala	9,441	5,829	6,024	4,443	9,502	8,366	7,932	10,204
Honduras	10,058	10,793	12,386	12,063	7,271	10,094	7,069	9,566
Nicaragua	29	133	7	140	160	112	369	754
Total	35,113	28,096	34,502	41,816	51,220	44,711	37,929	74,970
(Thousands of dollars, c.i.f.)								
Costa Rica	518	675	855	1,456	2,135	1,566	1,512	2,970
El Salvador	442	133	359	668	992	828	689	2,098
Guatemala	395	324	359	369	868	917	860	1,054
Honduras	508	703	980	1,065	841	1,265	980	1,391
Nicaragua	2	7	1	13	10	14	38	55
Total	1,865	1,842	2,554	3,571	4,846	4,590	4,079	7,568

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

^{34/} See FAO, Food and Agricultural Statistics, 1954, which gives consumption figures for the two countries mentioned above only.

Although the amounts of nitrogen applied in other Central American countries are not known, fertilizers seem to be applied on a very small scale, particularly in view of the fact that the soil is generally deficient in nitrogen because the tropical rainfall and the prolonged rainy season in vast areas of the Caribbean coast have seriously depleted the nitrogen content of the soil. So far as phosphorous is concerned, a survey recently made in El Salvador indicates that of 241 samples taken throughout the country, especially in coffee plantations, 60 per cent showed the phosphorous content to be deficient.^{35/}

In order to obtain a reliable estimate of Central America's fertilizer requirements, it is necessary to prepare a regional balance sheet for nitrogen, phosphorous and potassium. The balance sheet would show what fertilizers are required for the soil since it would indicate what amounts of the three chemicals are extracted by crops.

Most Central American tariff classifications make no distinction between the different kinds of fertilizers. It is therefore impossible to deduce from table 23 what is the proportion of the three chemicals in total imports. From the point of view of the potential manufacture of fertilizers in Central America, however, a different approach may be used. The main cause of high fertilizer costs is the high cost of transport. When importing Chilean nitrates, for example, the farmer pays for the transport of 15 per cent nitrogen and 85 per cent inert materials, when all he really needs is the nitrogen. There are two methods of remedying this situation; one is to reduce the cost of transport by means of local manufacture and the other is to import concentrates, that is, fertilizers containing a high proportion of one or more basic elements which are later "diluted" by the addition of local inert materials.

The large-scale production of phosphate and potassium fertilizers is based on the mining of natural deposits. To date no deposits of this kind have been found in Central America. In the case of these two chemicals, efforts should be made to import concentrates. A thorough

^{35/} See Alfredo Martínez C., "Elementos sobre el fósforo de los suelos", El café de El Salvador, N^os 282-283, June 1955.

study must be made to determine the relative cost advantages of importing cheaper and more common fertilizers as compared with more expensive concentrates.

The position is different with respect to nitrogen since it can be obtained from the air. But the nitrogen in the air must first be "fixed". In order to be applied to the soil and absorbed by the crops, it must be combined with another chemical. In modern practice, nitrogen is fixed by causing it to react with low-cost hydrogen, which produces ammonia. This process is economic only when hydrogen is really cheap.

There are many sources of hydrogen but only two seem practical in Central America: (a) electrolysis of brine and (b) hydrogen obtained as a by-product from the manufacture of high-octane rectified petrol. The first process has the advantage that caustic soda and chloride are also produced. In turn chloride can be used for the manufacture of bleaching powders, insecticides, etc. But it is doubtful whether this system can be employed economically at relatively low capacity levels and in the absence of a large market for caustic soda and chloride, since for each kilogramme of hydrogen released by electrolysis, 44 kilogrammes of caustic soda and 35 of chloride are obtained as by-products. For the manufacture of 10 tons of ammonia, 1.77 tons of hydrogen are required, the production of which yields 78 tons of caustic soda and 62 tons of chloride. Unless these chemicals could be sold at a profit,^{36/} hydrogen manufactured by electrolysis of brine would prove to be too expensive for the production of ammonia.

The second method naturally presupposes the execution of the petroleum refining project. Petrol obtained from direct distillation is frequently rectified to improve its efficiency in the engine, measured in octanes.

^{36/} Central America's imports of caustic soda in 1954 totalled 3,453 tons. It is generally imported as a solid. An electrolytic plant producing soluble caustic soda could probably not solidify it cheaply enough to compete with imported caustic soda, and transport costs for the liquid would be too high under Central American conditions. Yet if a good market were available for chloride, for example in a pesticide industry, there might be a sound economic case for the manufacture of hydrogen by electrolysis.

The rectifying process consists of partial cracking ^{37/} which releases hydrogen as a by-product. The hydrogen thus obtained would be cheap and the ammonia plant should therefore be situated near the refinery.

To have a rough idea of the possible capacity of an ammonia plant, it may be assumed that the annual production target is 50,000 tons of ammonium sulphate. In theory, 15,000 tons of anhydrous ammonia are necessary to manufacture that volume of sulphate, that is, a nitrogen fixation plant with an effective daily capacity of 50 tons of ammonia.

Once processed, ammonia can be used in its pure state or converted into ammonium salts. The use of anhydrous ammonia as a fertilizer directly applied to the soil is a recent development, the main advantage of which consists in the low tonnage to be transported. One ton of ammonium sulphate contains 20 per cent nitrogen, while one ton of anhydrous ammonia contains 85 per cent. The disadvantage of this method is that it requires special facilities for storage, transport and application, but it seems to be one of the most promising solutions to the problem of reducing fertilizer costs and should be carefully examined.

The classic method of producing ammonium sulphate is to treat ammonia with sulphuric acid. Unless sulphuric acid is also manufactured (as it must be if superphosphates are to be produced), it seems advisable to use the modern method of treating ammonia with carbon dioxide and gypsum, both of which are obtainable in Central America.

A fertilizer factory could also manufacture superphosphates using imported phosphate rock.^{38/} The process consists of treating phosphate rock - in which the phosphorous is not readily soluble - with sulphuric acid. The resulting superphosphate contains soluble phosphorous which is easily absorbed by crops. Manufacture of superphosphates is economic only when the plant also produces its own sulphuric acid.

^{37/} See section 2 "Petroleum refining", in this chapter.

^{38/} Most superphosphate plants use imported phosphate rock.

Unless adequate sulphur deposits can be mined in Central America, it would be preferable to import it, possibly from Mexico, for the manufacture of acid.

Some proportion of the factory's nitrogen and phosphorous requirements could be covered with local raw materials such as bones, dried blood, fish meal and oil-seed cakes.

Finally, a fertilizer plant must have mixing equipment in order to prepare the formulae required for different crops and kinds of soil.

In brief, the establishment of a fertilizer plant depends on many factors yet to be determined. It is therefore impossible, until further study is made, to decide on its feasibility. The present situation may be summed up as follows:

(a) A detailed analysis of present consumption of fertilizers by types is required.

(b) In order to determine the fertilizer requirements of the region it would be necessary to draw up a balance sheet for nitrogen, phosphorous and potassium.

(c) Even if the previously mentioned surveys reveal - which is likely - that there is a market for fertilizers large enough to warrant regional production, nitrogenous fertilizers could not be manufactured economically unless there is a cheap source of hydrogen, for instance from petrol rectification.

(d) It might also be possible, depending on the size of the market, to set up a superphosphate plant producing its own sulphuric acid. If it proved inadvisable to adopt the nitrogen fixation process for the production of ammonia, the plant could import anhydrous ammonia and treat it with sulphuric acid to obtain ammonium sulphate and superphosphates.

(e) The plant should have mixing equipment which could use a small proportion of local raw materials such as dried blood, bones, oil-seed cake, fish meal, etc.

In view of the many unknown and variable factors involved, it is impossible at the moment to estimate investment requirements.

10. Insecticides and fungicides

Insecticides and fungicides can be classified in two major groups: organic and inorganic. The former includes modern insecticides such as DDT, BHC, toxaphene, chlordane, etc. There are also some organic fungicides, but at present their importance for Central America is slight. The second group includes the "classic" pesticides: Paris green, calcium and lead arsenic, lime and sulphur, Bordeaux mixture and copper sulphate, which is the fungicide in most common use.

It would be a mistake to assume that with the advent of organic pesticides no further use has been made of the traditional inorganic pesticides. The fact is that the latter are extremely effective in controlling a very wide variety of pests. They can often be manufactured locally and are much cheaper than their organic equivalents, as 1952 consumption figures for the United States clearly show (see table 24).

Table 24

UNITED STATES: PRODUCTION AND IMPORTS OF SELECTED PESTICIDES, 1952
(Thousands of kilogrammes)

Production	
Calcium arseniate	3,571
Lead arseniate	6,486
White arsenic	14,231
Copper sulphate	85,839
DDT	45,368
BHC	38,631
Other insecticides	30,724
Organic fungicides	13,946
Imports	
Pyrethrum flowers	3,123
Rotenone roots	1,295
White arsenic	4,071

Source: United States Department of Agriculture, Agricultural Statistics, 1953.

/Even assuming

Even assuming that the "other insecticides" listed in table 24 are all of the organic type - although they undoubtedly include some of the traditional kinds like lime and sulphur - it can be seen that approximately the same amounts of "modern" and "classic" insecticides were used, despite the fact that United States farmers, thanks to their higher levels of productivity, are in a position to spend more on higher-priced modern insecticides. The traditional lower-cost inorganic pesticides have by no means been completely ousted by the organic ones. They have their place in agriculture and will presumably retain it for a long time to come. It would therefore be desirable to carry out exhaustive research to ascertain how far they can be utilized in Central America and which types can be manufactured within this area.

Table 25 shows the present consumption of pesticides in Central America. Most of the countries group insecticides and fungicides together in import statistics, so that their relative proportions cannot be ascertained. Nor is it possible to distinguish between the different types of products and between the various concentrates of the same product. Table 26 shows the proportion of total imports represented by fungicides in the case of Guatemala, where the latter are registered separately. Insecticides seem to constitute only a very small percentage of the whole, but the percentage increased substantially from 1950, because of the development of cotton-planting. The fungicide imported is probably copper sulphate for the banana plantations. The principal consumers of insecticides are the cotton-planters. Consequently in certain countries like El Salvador and Nicaragua, where there are extensive areas under cotton, import statistics must refer mainly to insecticides.

Table 25
CENTRAL AMERICA: IMPORTS OF INSECTICIDES AND FUNGICIDES

Country	1947	1948	1949	1950	1951	1952	1953	1954
(T o n s)								
Costa Rica	149	230	102	178	164	223	810	586
El Salvador	...	...	...	...	...	...	4,655	6,889
Guatemala	3,930	9,166	5,305	5,775	8,921	9,013	9,203	9,478
Honduras	68	100	142	135	222	404	585	675
Nicaragua	...	...	...	1,765	2,951	2,983	6,107	16,284
(Thousands of dollars c.i.f.)								
Costa Rica	62	132	59	146	165	155	413	491
El Salvador	...	...	...	...	...	...	1,191	1,863
Guatemala	515	1,355	863	966	1,714	2,259	1,997	2,225
Honduras	34	62	67	62	138	251	248	228
Nicaragua	...	...	...	570	1,319	1,089	1,510	4,485

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

Table 26
GUATEMALA: PERCENTAGE OF FUNGICIDES IN TOTAL IMPORTS OF
INSECTICIDES AND FUNGICIDES

	(Percentages)	
	In terms of volume	In terms of value
1947	96.5	91.8
1948	98.4	92.6
1949	87.4	81.0
1950	94.2	87.5
1951	90.3	78.5
1952	78.4	75.3
1953	81.1	78.1
1954	60.7	54.3

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

/It is clear

It is clear from table 25 that at the present moment total consumption is so great as to call for a detailed study of the problem. In 1953, Central America imported about 21,500 tons of pesticides, valued at 5.4 million dollars. In 1954, imports rose to 33,900 tons, valued at 9.3 million dollars. The value added in the United States pesticide industry was 40 per cent in 1950.^{39/} Supposing that half these imports had been locally produced within Central America, the gross product would have increased in 1954 by about 2 million dollars.

The first pre-requisite for the manufacture of inorganic pesticides is the availability of the basic raw materials. The products must be cheap, and it is doubtful whether the raw materials could survive the import freight charges. The second requisite is a market. Careful research should be carried out to determine which inorganic pesticides can be advantageously used for Central American crops.

When the raw materials are available, there is practically no maximum or minimum limit to the size of the plant. Most of the necessary processes are of such a kind that it is almost equally feasible to operate economically with a daily capacity of one or of one hundred tons. The main raw materials are lime, sulphur, lead oxide (litharge), copper oxide (or sulphur ore) and arsenic. With these raw materials - plus sulphuric, acetic and nitric acid in relatively small quantities - the following pesticides can be manufactured: lead arsenate, calcium arsenate, Paris green, Bordeaux mixture, sulphur,^{40/} calcium sulphate and copper sulphate.

All these raw materials exist in Central America, but, with the exception of lime, they do not seem to be commercially available. Deposits of sulphur, lead and copper are known to exist, and arsenic is a by-product of copper and lead smelting. If superphosphates were manufactured in the area, sulphuric acid could be obtained. Acetic acid is a product of wood distilling, and its manufacture might therefore constitute a secondary branch of the wood industry which could be

^{39/} Annual Survey of Manufactures: 1949 and 1950, op. cit.

^{40/} In various forms, for both dry and liquid application, for fumigation, etc.

established on the basis of the projected pulp and paper mill. Nitric acid could be obtained from ammonia if a plant for the manufacture of nitrogenous fertilizers were set up, although it may prove cheaper to import it.

Thus the manufacture of inorganic pesticides would depend on prior studies of needs and resources, and in any event upon the development of certain mining and fertilizer industries. The advantages for the region attendant upon the fulfilment of these conditions seem so considerable as to justify a later examination of the problem.

The manufacture of organic insecticides is a much more complex process, requiring substantial investment. Raw materials for the production of DDT are benzene, chlorine, alcohol and sulphuric acid. Benzene would have to be imported;^{41/} chlorine could be obtained electrolytically, if this process were adopted for the production of hydrogen in connexion with the manufacture of fertilizers; sufficient quantities of alcohol are available, and the production of sulphuric acid is linked to the production of superphosphates. A plant with so low a daily output as 2 tons ^{42/} would be economic provided that there was no difficulty in obtaining these raw materials. On the assumption that technical DDT is diluted for agricultural purposes by 3 per cent on an average, the output mentioned would mean a daily 67 tons of agricultural insecticide, a volume which the Central American market would undoubtedly be capable of absorbing. Mention must also be made of the consumption of DDT by the Departments of Sanitation and Hygiene, which use large quantities in their anti-malaria campaign.

A plant with a daily capacity of 2 tons would cost approximately 700,000 dollars. It should be emphasized, however, that the problem of DDT production is bound up with the installation of other industries capable of supplying the necessary raw materials.

^{41/} However, in the projected petroleum refinery it could be manufactured by catalytic synthesis.

^{42/} Information supplied by the Industrial Development Section of the United Nations Technical Assistance Administration.

The manufacture of DDT in a Central American plant might also be based on the purchase and combination of semi-factured ingredients, i.e. chloral and chloro-benzine. The feasibility of this would largely depend on the cost of raw materials as compared with that of importing the finished product.

The possibility of manufacturing toxaphene is also worthy of study. This important ingredient of insecticides for cotton is made from turpentine, and the production of the latter may be considerably expanded in Central America. The process of manufacturing toxaphene can by no means be described as straightforward, apart from the fact that chlorine is required. However, since the basic material exists in Central America and the production of toxaphene would encourage the development of the pine resin industry, research should be made into this matter. (Resin is also utilized as an auxiliary material in certain insecticide formulae to make the products more adhesive.)

Organic insecticides are not used in their pure form, but normally have to be diluted and blended with other insecticides to render them effective in controlling a variety of pests as well as of any species of insect which may have become immune to a particular insecticide. The diluting and blending processes are carried out in plants where the ingredients are combined in the proper proportions and where the inert materials, auxiliary products, etc., are added. Some inert materials - clay and talcum, for example - exist in Central America.

Mention might also be made of certain botanical insecticides which are often used in agriculture either by themselves or so combined with others as to give produce formulae. The most important are pyrethrum (from pyrethrum flowers) and rotenone (from certain roots). Plants containing rotenone are to be found in Central America, and while in normal times they are not widely cultivated for domestic consumption, during the last war considerable quantities were produced for export to the United States. This suggests the possibility of increasing the production of rotenone in the area not only for local use but also for export. In order to promote the cultivation of plants

/whose yield

whose yield of rotenone is high, appropriate research would have to be carried out by agricultural experimental stations in the various countries.

The establishment of one or more mixing plants may constitute a first practical step towards the large-scale manufacture of organic insecticides in Central America, as soon as the necessary raw materials are available. The same plants might manufacture some inorganic pesticides, always provided that the raw materials exist within the area.

No recommendations can be made as to the manufacture of pesticides in Central America without a thorough study of requirements, availability of raw materials, predictable development of other industries, etc. Such a study would be highly desirable, in view of the importance of pesticides not only for agriculture but for sanitation and hygiene.

11. Paints and varnishes

Consumption of paints and varnishes in Central America has increased steadily since 1948 (see tables 27 and 28). In that year, the area's imports of these two products amounted to 3,133 tons, with a value of 1.6 million dollars; in 1953, 4,045 tons, valued at 2.3 million dollars, were imported.

Table 27
CENTRAL AMERICA: PAINT IMPORTS

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(T o n s)							
Costa Rica	984	923	984	830	996	1,069	1,314 ^{a/}	1,139
El Salvador	429	275	352	403	497	596	667	736
Guatemala	555	553	625	487	524	507	572	630
Honduras	397	790	421	642	565	1,045	597	661
Nicaragua ^{b/}	<u>452</u>	<u>516</u>	<u>320</u>	<u>704</u>	<u>528</u>	<u>651</u>	<u>764</u>	<u>971</u>
Total	2,817	3,057	2,702	3,066	3,110	3,868	3,914	4,137
	(Thousands of dollars, c.i.f.)							
Costa Rica	478	409	469	411	499	554	723 ^{a/}	575
El Salvador	256	180	236	240	316	394	465	500
Guatemala	238	259	285	222	238	250	283	330
Honduras	185	416	204	336	330	622	334	405
Nicaragua ^{b/}	<u>232</u>	<u>282</u>	<u>189</u>	<u>361</u>	<u>291</u>	<u>374</u>	<u>481</u>	<u>570</u>
Total	1,389	1,546	1,383	1,570	1,674	2,194	2,286	2,380

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

^{a/} Including varnishes.

^{b/} Including varnishes, pigments and inks.

Table 28
CENTRAL AMERICA: VARNISH IMPORTS

Country	1947	1948	1949	1950	1951	1952	1953	1954
	(T o n s)							
Costa Rica	7	12	21	18	18	26	^{a/}	34
El Salvador	20	17	17	20	20	23	27	23
Guatemala	27	22	22	32	24	26	29	31
Honduras	<u>15</u>	<u>25</u>	<u>20</u>	<u>16</u>	<u>19</u>	<u>28</u>	<u>21</u>	<u>19</u>
Total four countries	69	76	80	86	81	103	...	107
	(Thousands of dollars, c.i.f.)							
Costa Rica	5	8	18	12	16	20	^{a/}	27
El Salvador	9	11	9	10	12	14	17	16
Guatemala	14	15	13	18	15	17	19	20
Honduras	<u>11</u>	<u>22</u>	<u>18</u>	<u>14</u>	<u>13</u>	<u>24</u>	<u>17</u>	<u>14</u>
Total four countries	39	56	58	54	56	75	...	77

Source: Economic Commission for Latin America, based on Central American foreign trade statistics.

Note: Nicaragua's statistics group paints and varnishes as a single item.

^{a/} Included under paints.

/There is

There is a close connexion between the consumption of paints and varnishes and the expansion of building activities, as well as the over-all improvement of standards of living. Assuming that consumption will continue to grow at its present annual rate of about 5 per cent, Central America will consume 4,900 tons in 1957 and 7,300 in 1965. At average 1954 import prices, these figures would represent respective values of 2.8 and 4.2 million dollars.

The paint industry covers a wide variety of products, ranging from distemper to synthetic latex emulsion paints, and from wood varnish to enamel for motor cars. Obviously, a Central American industry would have to concentrate on some of the basic and less costly products, without for the moment attempting to cover the whole gamut of varieties. At the outset, the products selected might be paint for walls, simple enamels, different kinds of wood varnish and simple oil paints.

Paint for walls could, to begin with, be of the distemper type, in powdered form. Here the essential process consists in the grinding and blending of the raw materials, whereas the other three types of products are liquid and have to be heat-processed. The adjective "simple" is added as a general indication of the fact that, as far as possible, products should be multi-purpose and inexpensive and that there should be a considerable demand for them in the area. Research is needed to determine real consumption and consumer preferences by type, quality and price.

As a conservative estimate, an industry manufacturing the foregoing products could supply about one-third of Central American demand, while the rest would have to be met with imports, either because the products concerned were highly specialized, or because some parts of the area found it more satisfactory to obtain supplies from abroad. In 1957, the one-third of probable consumption to be covered with regional production would amount to 600 tons, with a value of 900,000 dollars at 1954 prices.^{43/}

^{43/} In 1954, the factory in Costa Rica produced 50,000 gallons - or about 200 tons - of paint and varnishes.

The value added by the United States paint industry was 40 per cent in 1950.^{44/} On these bases, the manufacture of paints in Central America would mean an increment in the area's gross product of 360,000 dollars in 1957, and 550,000 dollars in 1965.

Some of the raw materials of most importance in the manufacture of paints and varnishes are to be found in Central America, or would be obtainable in the area if their production on a regional scale were encouraged by the existence of a safe market. The chief materials used by the paint industry which could be obtained locally are lime, castor-oil, turpentine, pine resin (pitch) and drying oils ("oiticica" type).

The existing castor-oil and pitch industries would be given a great impetus by the establishment of a relatively large-scale paint industry, and might find themselves in a position to improve their methods of extraction and their standards of quality.

Other raw materials such as pigments, petroleum solvents and linseed-oil would have to be imported. If a petroleum refinery were installed it would be relatively easy to produce most of the solvents needed for the paint industry. The industry would of course be interested in using formulae which involved a maximum of locally produced materials.

An annual output such as that assumed (1,600 tons) is equivalent to about 5 tons daily, half of which would consist of distemper and the remainder of paints and varnishes proper. From the strictly industrial point of view, the operation of a plant of this capacity seems feasible under the conditions existing in Central America.

Yet it must be borne in mind that the paint has to be packed and distributed, and that these operations represent at least 33 per cent of the cost. Paint, excluding distemper in powdered form, must be packed in tins, the transport of which is very expensive by reason of their bulk. Herein may lie the key to economic operation.

^{44/} Survey of Manufactures: 1949 and 1950, op. cit.

To judge by sales experience in Latin America, the break-down of the various sizes of tins used for every hundred gallons of paint is, on an average, as follows:

66 gallons in one-gallon tins (66 tins)
28 gallons in quart tins (112 tins)
11 gallons in pint tins (88 tins)
5 gallons in half-pint tins (80 tins)

As the output of liquid products would be about 2.5 tons daily (the approximate equivalent of 600 gallons), the plant would need 356 one-gallon tins; 677 quart tins; 528 pint tins; and 480 half-pint tins.

From the economic standpoint, it is doubtful whether the tin factory could operate economically on the basis of so small a daily consumption, unless the output could be expanded to cover the consumption of containers in fish, meat and fruit canning factories. The problem of containers is so important that it would have to be studied conscientiously from all possible points of view. The use of semi-automatic or of manually operated machinery would have to be considered as well as the possibility of sticking instead of soldering, as the latter operation calls for skilled labour if it is not done automatically.

Probably the best solution, to begin with at any rate, would be to buy the tops and bottoms of the tins from the big container factories, together with sheets of tinplate ready cut to the sizes required, a method which would mean considerable saving on transport.

All that would have to be done locally would be to give the tin its cylindrical shape, raise the edges and add the tops and bottoms. A minimum of equipment and training is required for this purpose. The method is successfully applied in floating canneries and in other places where consumption does not justify complete manufacture.^{45/} Subsequently, when consumption approached from 3,000 to 4,000 tins daily, a semi-automatic unit might be contemplated.

^{45/} Stanford Research Institute, Manual of Industrial Development with Specific Application to Latin America, 1954.

If the problem of containers were solved, there is no reason why a plant with a total capacity of 5 tons per 8 hour shift could not operate efficiently in Central America. The investment required would be approximately as follows:

	<u>Dollars</u>
Equipment	40,000
Construction	40,000
Stocks of raw materials	60,000
Stocks of finished products	40,000
Total	180,000

To sum up, the economic operation of a paint and varnish factory on the basis of a regional market seems feasible.

Chapter VI

CONCLUSIONS

The possible industrial development projects examined in the preceding chapter can be divided into two groups, according to how they might be promoted. Some undoubtedly need to be carefully studied by qualified experts, so that precise conclusions may be reached which will enable the Committee and the potential investors to form a sounder judgement of the desirability of the project; these include petroleum refining, the fishery industry, the manufacture of biological drugs and ampoules; and the production of fertilizers and of insecticides and fungicides. The other group comprises projects which might perhaps be undertaken by private enterprise with its own resources or with the help of such organizations as the Central American Research Institute for Industry. These relate to the manufacture of tyres, inner tubes and other rubber products; glass containers; printers' ink and allied products; welded tubing, and paints and varnishes.

Among the projects reviewed are some which might start operation over the short term and permit rapid amortization of the capital invested, thus creating additional income and additional savings which might be used for longer-term investment.

According to information received, in some of the branches of industry referred to above preliminary projects or suggestions have already taken shape in Central America, and in one case - that of tyres - a plant is now under construction. In some instances, small-scale plants or factories are known to be contemplated, but it has not been ascertained whether these projects have been prepared from a multinational standpoint or only with an eye to the local market in one particular country. It would be desirable in every way that henceforward consideration should be given to the regional market and to its future projection, for which purpose the studies presented in the preceding chapter might be of use. In any event, the independent or partial studies already carried out, which constitute a valuable body of

/experience,

experience, should be taken into account in the preparation of broader projects, or they might serve as a nucleus for such projects.

Whatever the procedure to be followed for furthering technical and economic studies, every possible effort would have to be made to provide the favourable environment required if full advantage is to be taken of the Central American policy of economic integration. The decision to install or expand an industrial undertaking rests, in the final issue, with the investor, be this a private or a public enterprise, a businessman or a development agency. If the project does not hold out reasonable prospects of success and of profits, the investor will not take the risk. And, apart from the intrinsic characteristics of the project, a major part of this risk may depend upon the nature of the stimulus afforded by government action.

It has already been pointed out that there is a tendency in Central America to grant fiscal facilities for the establishment of new essential, desirable, etc., industries, according to the definitions of these concepts contained in the industrial development legislation passed by some of the Central American countries. While these tax exemption systems are not decisive, since they constitute only one of several factors which may exert a favourable influence, there is an element, already pointed out in chapter III ^{1/}, which deserves further emphasis. Only the Industrial Development Act of El Salvador places Central American capital on an equal footing with domestic investment in applying the conditions provided for in such legislation with respect to the source of capital. In the other countries, as the legislation in question does not embody so liberal an attitude to the origin of capital, it does not constitute a special incentive to the establishment of multinational industries consonant with the regional integration programme, however much encouragement it may offer to industries financed by domestic capital. However, with the object of stimulating the joint financing of integration industries by investors from all five countries, the Draft Régime for Central American Integration Industries stipulates that capital from Central American sources invested

^{1/} See chapter III, section 4, especially page 87

in integration industries shall receive the same treatment as domestic capital in the country where the investment is placed.^{2/}

Reference was also made at an earlier stage ^{3/} to the fact that industries designed to serve a multinational market need some guarantee to the effect that they can always rely on a market of the size originally envisaged. If the output capacity of a plant is calculated - with all due caution - in relation to the Central American market as a whole or a substantial proportion of it, and then, through taxation, restrictions or prohibitions, some country closes part of this market so the production in question or part of it is lost on account of competition from another similar plant installed without regard to the regional economic integration programme; the factory will end by operating at a very high cost or even at a loss. The same argument holds good in relation to the regularity of supplies of any given raw material, whether it is produced in Central America or imported through a third country. These are risks peculiar to the Central American integration programme, and do not arise in the same way so far as the industrial development of a single country is concerned. This accounts for the importance of free trade treaties and of permanent co-operation between the countries of the area, so that obstacles to the intra-regional circulation of raw materials and of semi-finished and finished products may be removed. Scarcely any of the products of the industries studied in chapter V have been taken into account in the free trade treaties at present in force. In view of this, the draft régime referred to provides for the application of free trade treatment to the products of integration industries, and includes clauses designed to ensure the maximum duration and continuity of the Central American market for which these industries are to be created.

As regards the organization and financing of industrial enterprises within the framework of the economic integration of Central America, there are various possibilities. What is essential in the study of an integration

^{2/} See article VIII of the draft régime in question.

^{3/} See chapter I, section 2.

industry is the economic aspect and the situation of the industry in question - its position vis-à-vis a multinational or regional rather than a purely domestic market. It is this position which will determine the scale of production. The method of financing, on the other hand, is not what gives an enterprise its multinational character. It would be better to visualize the greatest possible flexibility as far as methods of financing are concerned. Consideration may be given to enterprises set up with capital from a single country, whose production will supply the whole or part of the area; to various combinations of capital from two or more Central American sources; or to the association of Central American capital with capital from abroad, whether in the form of loans or of private investment. The Central American capital may be public or private, or both in conjunction. In all these cases arrangements may or may not be made for the use of foreign patents, procedures and technique, in return for the payment of royalties. The financial organization adopted in each instance will perhaps depend primarily upon the amount of the investment. A factory with an initial investment of 50,000 dollars offers more possibilities for a simple financing formula than a plant which might cost 20 million dollars.

It has already been pointed out that important industries - such as cement and textiles - have been developed and expanded without regard to the proposed Central American economic integration, and solely on the basis of isolated national programmes. Nor are some others, such as footwear, vegetable oils and powdered milk, established in the course of the last three years, consonant with the regional criterion. The danger exists, therefore, that this may continue to happen. Some of the industries mentioned in chapter V, for example, may be set up in the same way, and consequently on the basis of an unduly narrow market, or in sites which are unsatisfactory from the regional point of view.

The possible continuance of industrialization without regional integration may be the result of two negative factors in economic policy. On the one hand, the general opening-up of the Central American market is perhaps not receiving a strong enough impetus from free trade treaties;

/on the other,

on the other, there is a lack of incentives to contacts between the production sectors of the five countries with a view to the promotion of industries. While some projects have been studied - and others might be considered - by the Central American Economic Co-operation Committee, and, again, the Central American Research Institute for Industries might be a useful instrument for the examination of yet others, more still remains to be done, as this report suggests, than the Committee can normally undertake to deal with. What is more important undertakings will continually be launched by private enterprise, both domestic and foreign; if information on these were available in good time, and if they were to fit in to the prospective pattern of regional integration they might become projects for the Central American market, with an adequate economic basis. It is not inconceivable that the private industrial and commercial organizations of the five Central American republics might conclude agreements relating to co-ordination and trade, and, in turn, correlate their activities with those of the Committee and of the integration programme institutions. The Central American Industrial Initiatives Commission ^{4/} has begun to fulfil this highly important function.

It is also of interest to point out that the original terms of reference of the Committee include assistance in the reciprocal co-ordination of the development programmes of the five member Governments. This faculty has not yet been exercised, although fragmentary aspects of the problem have been touched upon in specific studies. Time is certain to show how desirable it is that the development programmes of individual countries should not be implemented without reference to those of their neighbours. Given the extent of the territories involved, the affinities between their peoples, their financial and business inter-relationships, the growing mutual dependence of their markets and the expansion of their trade, any development programme must inevitably be affected by existing plans - or by the want of a definite programme - in the other countries of Central America.

^{4/} See chapter III, section 3, Point f.

Another important consideration is that obviously not all the industries which could be installed in Central America are dependent on the integration programme; in other words, many can be justified within a particular country by the domestic market alone. Even so, the integration programme may operate in their favour. Some may be established as suppliers of a product consumed by another larger industry, installed under the integration programme. Such possibilities as these suggest the desirability of some means of effecting a rapprochement between the public organizations of the various countries - such as development agencies and others of an autonomous nature connected with economic development - and the different sectors of private enterprise. This, like every task involving the promotion of an idea and the implementation of economic policy, can be carried out only by means of joint official and private effort at various levels, maximum advantage being taken of existing facilities and services. In the case of Central America, the frequent contacts and the closer relationships which are being developed between the economies of the five countries facilitate the co-operation which is essential if a higher standard of living is to be attained.

Annex

RESOLUTIONS ON THE CENTRAL AMERICAN PROGRAMME
OF ECONOMIC INTEGRATION

INTRODUCTORY NOTE

The present annex comprises the texts of resolutions adopted in connexion with the Central American economic integration programme. In the first section two resolutions have been included - as a background to the work of the Central American Economic Co-operation Committee - which were adopted by the Economic Commission for Latin America at its fourth session (Mexico, May-June 1951). The second section contains the resolutions adopted by the Committee at four sessions held from 1952 to 1956,^{*} and the third section, the resolutions adopted by ECLA and its Committee of the Whole with regard to the progress of the Central American Economic Co-operation Committee's work.

This annex does not include the resolutions and agreements adopted by sub-committees, commissions and working groups, since their work is fully covered in the Committee's resolutions.

^{*} Editorial note: The English text of the resolutions of the Economic Co-operation Committee was provided by the Mexico Office of ECLA.

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III. RESOLUTIONS OF THE ECONOMIC COMMISSION FOR LATIN AMERICA
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- B. Resolution 73 (AC.24): Economic integration of Central America, adopted on 9 February 1954 (E/CN.12/AC.24/10)
- C. Resolution 84 (VI): Economic integration of Central America, adopted on 15 September 1955 (E/CN.12/393)
- D. Resolution 111 (AC.34): Economic integration of Central America, adopted on 14 May 1956.

I

BACKGROUND INFORMATION

(Resolutions adopted by the Economic Commission for Latin America)

ECONOMIC DEVELOPMENT IN CENTRAL AMERICA

Resolution 9 (IV), adopted on 16 June 1951
(E/CN.12/275)

The Economic Commission for Latin America,

Considering that, in a resolution (E/CN.12/194) adopted on 20 June 1950 at its third session, it agreed to recommend to Latin American Governments that in drafting programmes and taking measures to promote economic development "they should take into account the possibilities of expanding demand through reciprocal trade, in order to achieve a better integration of their economies and higher levels of productivity and real income";

Considering that the delegations of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, in pursuance of the principle of the above resolution and in view of the geographical and historical ties which unite Central America, have expressed the interest of their Governments in the development of agricultural and industrial production and of transportation systems in their respective countries so as to promote the integration of their economies and the expansion of markets by the exchange of their products, the co-ordination of their development programmes and the establishment of enterprises in which all or some of these countries have an interest;

Considering that these delegations have also indicated their desire that the Executive Secretary co-operate with the Governments concerned in the study and development of these plans; and

Considering that the aspirations of the Central American countries will make a positive contribution to the economic development of Latin

/America and

America and are compatible with the objectives of the Commission,

(a) Takes note with satisfaction of the declared objectives of the Central American Governments with reference to the integration of their national economies,

(b) Requests the Executive Secretary to study the means or plans for the progressive attainment of those objectives; and

(c) Invites the Governments of the Isthmus of Central America, whenever they deem it appropriate, to form a committee on economic co-operation, composed of ministers of economic affairs or persons appointed by them, to act as a co-ordinating body for activities relating to the above-mentioned questions, and as a consultative organ of the Executive Secretary of ECLA, both to direct the studies mentioned above and to examine the conclusions reached therein.

ESTABLISHMENT OF A MEXICO OFFICE OF ECLA

Resolution 30 (IV), adopted on 16 June 1951
(E/CN.12/284)

The Economic Commission for Latin America,

Notes with satisfaction the Executive Secretary's recommendation that an office of the Economic Commission for Latin America should be set up in Mexico City, as a branch office of ECLA headquarters in Santiago, Chile, to study the economic problems of the following countries: Costa Rica, Cuba, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama and the Dominican Republic, without prejudice to the Executive Secretary's authority to extend those studies to other areas of the continent if he deems it advisable,

Notes that with the establishment of this office, the secretariat will be able to carry out its work more efficiently and economically,

Accepts with pleasure the generous offer made by the Government of Mexico to the United Nations to place at the disposal of the ECLA Office in Mexico all the necessary facilities, and

/Requests the

Requests the Secretary-General of the United Nations, bearing in mind the foregoing consideration, to take the necessary measures to facilitate the constitution and organization of the new Office at the close of the Commission's fourth session.

II

RESOLUTIONS OF THE CENTRAL AMERICAN ECONOMIC CO-OPERATION COMMITTEE *

1. First session **

GENERAL PRINCIPLES OF ECONOMIC INTEGRATION
IN CENTRAL AMERICA

Resolution 1 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/8)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that the Executive Secretary of the Economic Commission for Latin America, fulfilling the instructions given during the fourth session of the Commission, held in Mexico City, presented a report on Economic Integration and Reciprocity in Central America;

Considering that in the aforesaid report the Executive Secretary makes several suggestions for carrying out a gradual and limited integration of the countries of the Isthmus; and

Considering that although it is the common aspiration of the peoples and Governments of the Isthmus of Central America to achieve a total integration of their economies as soon as possible, it would be advisable, given present day conditions, to concentrate their efforts in a gradual economic integration limited to specific sectors of crop and livestock production and industry,

Resolves:

To note with satisfaction the report presented by the Executive Secretary of the Economic Commission for Latin America on economic integration and reciprocity in Central America and to congratulate the

* The documents of the first two sessions of the Committee bear the symbol E/CN.12/AC.17/-, and those of the extraordinary session and later sessions E/CN.12/CCE/-. The English text was provided by the Mexico Office of ECLA.

** Tegucigalpa, Honduras, 23-28 August 1952.

secretariat of the aforesaid Commission on the accuracy with which it has analysed the economic problems common to the Central American countries and proposed concrete measures for their solution; and

Recommends to the participating Governments:

- (a) That in formulating their economic policies they should take into account the need for integrating the economies of their respective countries and so develop programmes directed to achieving this objective, based on the common aspirations and the principles of mutual co-operation and reciprocity; and
- (b) That in order to carry out this policy of integration gradually and progressively it is necessary to study and adopt projects of economic development calling for joint action, and to carry these out in accordance with the practical possibilities available.

PRODUCTIVE ACTIVITIES DIRECTED TOWARDS
ECONOMIC INTEGRATION

Resolution 2 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/9)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that this Committee has resolved to adopt the principles of limited and gradual economic integration, based on mutual co-operation and reciprocity, as a practical guide which, for the present, would assist in promoting the complementary development of the economy of Central America;

Considering that the secretariat of the Economic Commission for Latin America has submitted to the consideration of the Committee a number of studies which may serve as a basis for the preparation of concrete projects in an important sector of productive activities;

Considering that in selecting initial projects it is necessary to keep in mind the advisability of stimulating agricultural development

/with a

with a view to increasing both consumption and the volume of trade and providing an adequate supply of raw materials for Central American industries, and that these projects should not only envisage the establishment of new industrial activities but also the improvement and rationalization of those already in existence; and

Considering that, in order to regulate the preparation of the concrete projects and the utilization of such technical assistance as may be lent by the United Nations and its specialized agencies, it would be desirable to indicate those groups of activities which are of immediate interest and which best comply with the objectives in view,

Resolves:

1. To note the suggestions contained in chapter IV of the report on Economic Integration and Reciprocity in Central America presented by the Executive Secretary of the Commission and to request that concrete projects be formulated, envisaging the establishment of new industries and the improvement and rationalization of those already in existence, taking into account the need for:

- (a) linking the development of crop and livestock producing activities with industrial development;
- (b) promoting an increase in the volume of inter-Central American trade and closer economic complementary activities; and
- (c) seeking the widest application of the principle of reciprocity, keeping in mind the location of all productive activities;

2. To recommend that the Governments of the Central American Republics request the United Nations, the Food and Agriculture Organization and other specialized agencies to send experts to work in conjunction with those of the Economic Commission for Latin America in order to formulate the concrete projects referred to in the foregoing section in connexion with the activities mentioned in the report, granting the highest priority to the following group:

/(a) cotton

- (a) cotton and cotton yarn and textiles;
- (b) oilseeds, oils, fats and related industries;
- (c) cattle-raising, dairy products, preparation of meat and hides, footwear, leather goods and other by-products;
- (d) fishing and related industries;
- (e) forest resources, lumber, woodpulp and paper industries;
- (f) rubber tires and tubes and other rubber goods; and
- (g) wooden and wax matches.

In drawing up these projects, special attention should be given to the possible tax implications involved by their execution, and an attempt should be made to suggest the best means of preventing any adverse results;

3. To recommend that the secretariat of the Economic Commission for Latin America make periodic reports to the Committee on the progress of the work referred to above and its relationship with the integration of the Central American economies, requesting, at the same time, that with a view to the better fulfilment of the principles adopted by the Committee, the Commission should suggest the extensions or changes it deems advisable to make in the initial list of activities included in this resolution.

ELECTRIC POWER

Resolution 3 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/10)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that one of the fundamental requisites for industrial and agricultural development and for economic integration in Central America is an adequate supply of electric power;

Considering that the installations currently available in Central America are inadequate to meet present demand and cannot therefore contribute to the economic development of the area;

/Considering that

Considering that as yet no aggregate study has been made of the electric power industry of Central America and that, on the whole, in the present plants it has proved impossible to adopt the modern techniques of inter-connexion and load compensation required to obtain the maximum benefit from the resources used in the generation of electricity,

Resolves:

1. To recommend that the respective Governments request from the Technical Assistance Administration of the United Nations the services of the necessary experts who, together with the Executive Secretariat of the Economic Commission for Latin America and in consultation with the Governments, would carry out a complete study of the electrical industry of Central America.

2. That, in carrying out this study, due account be taken of existing electrification plans; that an indication be given of the methods and systems to be adopted in order to stimulate the development of electric power and to improve actual conditions in the generation, distribution and consumption of electricity. It is likewise necessary to ascertain the possibilities of inter-connexion of the power networks of each country on a national and international scale, so that efficient use can be made of electric installations and the utilization of the hydroelectric resources of the area.

TRANSPORT STUDY IN CENTRAL AMERICA

Resolution 4 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/11)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that the Executive Secretary of the Economic Commission for Latin America reported to the Committee (E/CN.12/AC.17/6) on the progress made by the Central American Republics and Panama in their request to the Technical Assistance Administration of the United Nations for an integral study of Transport in Central America, to be carried out

/jointly by

jointly by that Administration and by the Executive Secretariat of the Commission;

Considering that the report to be prepared by these experts should be presented to the Governments concerned for study, and that it would be advisable to discuss the conclusions of the document in a seminar attended by representatives and technicians of the different interested countries,

Resolves:

1. To note with satisfaction the report submitted by the Executive Secretary of the Economic Commission for Latin America on the background and preparatory work for this study and of the proposal to hold a seminar to discuss this subject;

2. To offer its auspices to the seminar referred to above in view of the importance of these problems in relation to the policy of integration and reciprocity adopted by the Central American countries and to recommend that the Executive Secretary, after consultation with the participating governments, set the place and date of this meeting.

FINANCING OF ECONOMIC DEVELOPMENT AND INTEGRATION
IN CENTRAL AMERICA

Resolution 5 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/12)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that, in order to carry out the policies of development and gradual and limited integration of Central American economy, it is essential to have greater financial resources than are at present available and also to ensure the co-operation of the republics of the Isthmus in the joint or co-ordinated financing of the different projects;

Considering that the possibilities of increasing savings and domestic investments in Central America and the means of utilizing foreign financial resources supplied by private capital and by

/international financial

Considering that as yet no aggregate study has been made of the electric power industry of Central America and that, on the whole, in the present plants it has proved impossible to adopt the modern techniques of inter-connexion and load compensation required to obtain the maximum benefit from the resources used in the generation of electricity,

Resolves:

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2. That, in carrying out this study, due account be taken of existing electrification plans; that an indication be given of the methods and systems to be adopted in order to stimulate the development of electric power and to improve actual conditions in the generation, distribution and consumption of electricity. It is likewise necessary to ascertain the possibilities of inter-connexion of the power networks of each country on a national and international scale, so that efficient use can be made of electric installations and the utilization of the hydroelectric resources of the area.

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Considering that the report to be prepared by these experts should be presented to the Governments concerned for study, and that it would be advisable to discuss the conclusions of the document in a seminar attended by representatives and technicians of the different interested countries,

Resolves:

1. To note with satisfaction the report submitted by the Executive Secretary of the Economic Commission for Latin America on the background and preparatory work for this study and of the proposal to hold a seminar to discuss this subject;

2. To offer its auspices to the seminar referred to above in view of the importance of these problems in relation to the policy of integration and reciprocity adopted by the Central American countries and to recommend that the Executive Secretary, after consultation with the participating governments, set the place and date of this meeting.

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Considering that the possibilities of increasing savings and domestic investments in Central America and the means of utilizing foreign financial resources supplied by private capital and by

/international financial

- (vi) To train Central American researchers and technicians in the various activities promoted by the institute and to train skilled labour for such activities.
- (vii) To sponsor by all possible publicity methods the knowledge of technique and to stimulate concern for industrial technological research.

TECHNICAL TRAINING IN THE FIELD OF INDUSTRY
AND MANAGEMENT

Resolution 7 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/14)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that the training of industrial experts and skilled labour is one of the most pressing requisites for those industries already located in Central America or those to be established there shortly, especially in view of the plans of economic integration which the countries in this area propose to carry out;

Considering that the training of commercial and industrial leaders and managers is likewise essential to good organization and industrial development in this region,

Resolves to recommend that the Governments of the Central American countries request United Nations and its specialized agencies, in collaboration with the Executive Secretary of the Economic Commission for Latin America and in accordance with the means provided by the extended programme of technical assistance, to prepare:

- (a) Concrete proposals for the most suitable method of promoting the training of experts and skilled labour in Central America, taking into account prevailing conditions and the objectives of economic development and integration pursued by the republics in this area; and
- (b) A report recommending the most adequate programme of technical training for industrial and commercial leaders and managers in Central America.

RESEARCH AND TRAINING IN CROP AND LIVESTOCK PRODUCTION
AND THEIR RELATIONSHIP WITH ECONOMIC DEVELOPMENT

Resolution 8 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/15)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that at the present time, research work in the field of crop and livestock production is being carried out which, from the standpoint of its economic consequences, is of special importance to the objectives of development and integration pursued by this Committee,

Resolves:

1. To recommend that the Central American Governments, through their Ministries of Agriculture or other appropriate organs, give special attention to the relationship between research and training in crop and livestock production on the one hand, and economic development on the other, with a view to increase co-ordination throughout Central America as a whole;

2. To recommend that the Executive Secretary of the Economic Commission for Latin America, in co-operation with the Food and Agriculture Organization, and in consultation with the competent national and international agencies, carry out an appraisal of the activities referred to immediately above, under 1. in connexion with the requisites, possibilities and objectives of economic development and especially with the policy of integration.

STANDARDIZATION OF INTERNATIONAL TRADE CLASSIFICATIONS
AND STATISTICAL NOMENCLATURE

Resolution 9 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/16)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that the compilation of comparable foreign trade statistics and the adoption of standardized international trade nomenclature are essential requirements for carrying out a gradual and limited policy of economic integration in the countries of Central America, as approved by this Committee,

Resolves:

1. To recommend that the Governments of the Central American republics co-ordinate their efforts in the conversion of their international trade statistics to the Standardized International Trade Classification (SITC), collaborating with the Economic Commission for Latin America, the Statistical Office of the United Nations and the Inter-American Institute of Statistics in this task;
2. To constitute a sub-committee for the purpose of preparing a project of standardized international trade classifications for the countries of Central America and to request the co-operation of the Executive Secretary of the Economic Commission for Latin America in carrying out this work; and
3. To designate the city of Tegucigalpa as the headquarters of the aforesaid sub-committee and to invite the Governments and the Executive Secretary of the Economic Commission for Latin America to send delegates at their earliest possible convenience.

FINANCING AND ADMINISTRATION OF CENTRAL AMERICAN
PROJECTS OF TECHNICAL ASSISTANCE

Resolution 10 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/17)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that this Committee recommended that the participating Governments request of United Nations and its specialized agencies the technical assistance required for the study of the problems common to the Central American republics and for the formulation of projects directed to the integration of their economies;

Considering that, notwithstanding the fact that the Central American countries have signed technical assistance agreements with United Nations and with the specialized agencies, these agreements do not provide for aspects arising from inter-Central American integration and co-operation as presented in the projects of assistance considered by this Committee,

Resolves to recommend that the organizations forming the Technical Assistance Administration Board of United Nations take the necessary steps to grant special treatment for the technical assistance requests made by the Governments of Central America, in accordance with the regional nature of the projects; and that in establishing the aforesaid agreements, they take into account the limited contributing capacity of the Central American countries and the desirability of establishing simple administrative methods to facilitate co-operation between United Nations and the Governments of Central American republics.

ATTRIBUTIONS OF THE COMMITTEE OF THE MINISTERS OF
ECONOMY ON ECONOMIC CO-OPERATION IN CENTRAL AMERICA

Resolution 11 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/18)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that resolution 9 (IV) of the Economic Commission for Latin America, adopted in June 1951, indicates the general method of procedure for the Committee and that in holding its first session it would be opportune for this Committee to state these attributions specifically in order to guide its work in the future,

Resolves that the Committee of Ministers of Economy on Economic Co-operation in Central America is a permanent organization of the Economic Commission for Latin America, on the governmental level;

The following shall be the functions of the Committee:

(a) To propose to the participating Governments such concrete measures as are directed to the gradual and limited integration of the economies of the Central American countries and the necessary co-ordination for their domestic programmes of economic development;

(b) To determine the carrying out of research and study in connexion with the objectives outlined immediately above;

(c) To direct and guide the utilization of technical assistance in matters pertaining to the integration of the Central American economies; to co-ordinate requests made by these Governments for technical assistance in such matters; to superintend the progress and execution of the work done by the experts; and to take note of the reports and studies submitted by the latter;

(d) To constitute sub-committees to deal with subjects related to the economic integration of Central America and to sponsor meetings of experts;

The Committee should ordinarily meet once a year, the Ministers attending in person; should they be prevented therefrom by unavoidable circumstances, they may be represented by an alternate. The Committee

/may hold

may hold additional meetings, attended by the Ministers or their duly-appointed substitutes when the continuity of the work of the Committee so demands;

The Committee may invite observers or representatives of specialized agencies of United Nations, or of other bodies to attend its meetings, in an advisory capacity;

The Committee shall determine the places in which its meetings are to be held, observing, insofar as is possible, a suitable order of rotation for the Central American countries, though permitting them to coincide with the periodic sessions of the Economic Commission for Latin America, when this appears desirable.

INTERNAL CO-ORDINATION AND LIAISON

Resolution 12 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/19)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that, in order to carry out the plans of integration of the economies of the Central American countries, it is essential to ensure the continuity of the work of the Committee and take the necessary measures to enable the respective Governments to co-ordinate the internal activities of the different departments concerned with matters related to the integration of the Central American economies,

Resolves to recommend to the participating Governments,

- (a) That they appoint a Liaison Officer to co-ordinate the activities of the different departments concerned with matters related to the integration of the Central American economies; and
- (b) That the aforesaid Officer likewise fulfil liaison duties between his Government and the Executive Secretariat of the Economic Commission for Latin America and, insofar as is possible, represent the Minister of Economy at the meetings which the latter is unable to attend personally.

/INVITATION EXTENDED

INVITATION EXTENDED TO THE REPUBLIC OF PANAMA
TO JOIN THE COMMITTEE

Resolution 13 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/20)

The Committee of the Ministers of Economy on Economic Co-operation in
Central America

Considering that the terms of resolution 9 (IV) of the Economic Commission for Latin America unquestionably allow for the participation of the Republic of Panama in the Committee of Ministers of Economy on Economic Co-operation in Central America;

Considering that, in view of the geographic position of the Republic of Panama and the resemblance between its economic problems and those of the rest of Central America, the incorporation of the aforesaid sister republic in the movement of integration and reciprocity would assist in solving these problems and in extending the scope of the policy fostered by the Committee,

Resolves:

1. To express its pleasure in having the Republic of Panama share the principles and purposes upheld by the Committee and participate in the activities and sessions of the aforesaid committee, as a member thereof.
2. To empower the Executive Secretary of the Economic Commission for Latin America, in concurrence with the Chairman of the Committee of Ministers of Economy on Economic Co-operation in Central America, to invite the Government of the Republic of Panama to send its representatives to forthcoming meetings and activities of the above Committee and its subsidiary bodies.

/PLACE AND

PLACE AND DATE OF THE NEXT SESSION

Resolution 14 (AC.17) adopted on 27 August 1952
(E/CN.12/AC.17/21)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Resolves

1. To take note of the generous offers made by the Governments of Costa Rica and Nicaragua regarding the holdings of the forthcoming sessions of the Committee in the cities of San José and Managua, successively and accept these invitations with pleasure; and

2. To empower the Chairman of the Committee, in the event of any circumstance arising which would prevent the sessions being held in the order and places arranged, to fix the date and place of the next one after consultation with the other member Governments of the Committee and in agreement with the Executive Secretary of the Economic Commission for Latin America.

VOTE OF THANKS TO THE OFFICERS OF THE COMMITTEE, THE
SECRETARIAT AND THE REPRESENTATIVES OF THE UNITED NATIONS

Resolution 15 (AC.17) adopted on 27 August 1952
(E/CN.12/AC.17/22)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Resolves to express its warmest thanks:

(a) To the Chairman of the Committee, Dr. Marco A. Batres, Minister of Finance, Public Credit and Commerce of Honduras, for the efficiency with which he conducted the proceedings of the Committee, thus contributing to the successful conclusion of the meeting;

(b) To the Executive Secretary of the Economic Commission for Latin America and other members of the secretariat for the preparation of the Conference and of the technical reports which provided the Committee with a sound basis for its discussions;

/(c) To the

(c) To the Assistant-Director of the Technical Assistance Administration of United Nations and the Executive Secretary of the Technical Assistance Administration Board of United Nations for having attended the meeting and imparted explanatory comments of great value in clarifying the discussion of certain important topics.

VOTE OF THANKS TO THE GOVERNMENT AND
AUTHORITIES OF HONDURAS

Resolution 16 (AC.17), adopted on 27 August 1952
(E/CN.12/AC.17/23)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Resolves to express its sincerest thanks to the Government and authorities of Honduras for the generous hospitality shown to all the delegations and to the secretariat of the Economic Commission for Latin America, as well as for the efficient measures taken to ensure the smooth running of the meetings.

2. Second session

SITUATION OF THE ECONOMIC INTEGRATION PROGRAMME

Resolution 17 (AC.17), adopted on 15 October 1953
(E/CN.12/AC.17/32)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Considering that the Executive Secretary of the Economic Commission for Latin America has presented a report on the work carried out since the Committee's first session (E/CN.12/AC.17/27),

Resolves to take note with satisfaction of the report of the Executive Secretary of the Economic Commission for Latin America on the work carried out in implementing the gradual and progressive programme for economic integration in Central America, as recommended at the Committee's first session.

TRADE NOMENCLATURE AND REGULATIONS

Resolution 18 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/33)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that the Sub-Committee on the Unification of Central American Tariff Nomenclature, established in accordance with resolution 9 (AC.17) of the Committee's first session, has submitted for its consideration a project for Uniform Central American Tariff Nomenclature (Nomenclatura Arancelaria Uniforme Centroamericana - NAUCA) (E/CN.12/AC.17/25),

Considering that the project submitted by that Sub-Committee is adapted to the requirements of the Central American countries and that customs standardization is essential in order to carry out the economic integration programme,

Considering that it is necessary, for more adequate application of NAUCA, to have a standard manual for international trade, as indicated by the sub-items in NAUCA,

Considering that it is desirable to adopt a uniform nomenclature for export products,

Considering that, in order to secure effective application of NAUCA, it is necessary, as far as possible, to standardize customs legislation, regulations, terminology and procedure, as well as the varying concepts for units of appraisal and criteria for valuing merchandise, and

Considering that differences between the taxation systems, as well as other economic factors which affect the cost of imported goods, encourage contraband, to the prejudice of the interests of each of the Central American countries,

Resolves:

1. To approve the report of the Sub-Committee on the Unification of Central American Tariff Nomenclature presented on 4 March 1953, and to express

/its thanks

its thanks to the members of the Sub-Committee and to the technical advisers who made a decisive contribution to the satisfactory accomplishment of this work;

2. To recommend that Governments adopt the Uniform Central American Customs Nomenclature (NAUCA) as soon as possible;

3. To request the secretariat to take up with the United Nations Statistical Office and the Inter-American Statistical Institute the enlargement of the standard manual for foreign trade published by these bodies by including the sub-items comprised in NAUCA;

4. To constitute a Sub-Committee on Central American Trade, with headquarters at Tegucigalpa but empowered to meet at any of the other Central American capitals or at the Mexico City Office of the Economic Commission for Latin America when the work so requires. This Sub-Committee shall have the following functions:

- (a) To draw up a uniform Central American tariff nomenclature for export products;
- (b) To study the means for unifying customs legislation, regulations, terminology and procedures, as well as the concepts for units of appraisal and criteria for valuing merchandise;
- (c) To proceed with the consideration of customs, commercial, monetary, exchange, taxation or other factors affecting the cost of commodities exchanged between the Central American republics, particularly those which are or may be the object of contraband, with a view to offsetting the differentials which give or may give rise to such traffic.
- (d) To formulate recommendations on the foregoing subjects so that Governments may adopt uniform solutions and procedure.

/INTER-CENTRAL AMERICAN

INTER-CENTRAL-AMERICAN TRADE

Resolution 19 (AC. 17), adopted on 15 October 1953
(E/CN.12/AC.17.34)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that it is essential for the economic integration of Central America that trade between the different countries be facilitated and that a multilateral free-trade treaty is an effective means to that end,

Considering that bilateral free-trade treaties between some of the Central American countries constitute a step towards the integration of their economies, and

Considering that the absence of adequate studies on Inter-Central-Trade hampers the immediate achievement of the above-mentioned objectives,

Resolves:

1. To recommend that Governments continue their present policy of signing bilateral free-trade treaties with other Central American countries;
2. To request the secretariat, in consultation with the respective Governments, to study inter-Central-American trade and the prospects for establishing a multilateral free-trade treaty among the Central American countries, presenting relevant recommendations to the Committee.

STATISTICAL UNIFORMITY IN CENTRAL AMERICA

Resolution 20 (AC.17), adopted on 15 October 1953
(E/CN.12/AC.17/35)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that it is fundamental, both for Central American economic development and for the accomplishment of the economic integration programme, to depend upon uniform statistical data,

/Resolves:

Resolves:

1. To request the secretariat, in collaboration with competent national and international bodies, to study adequate measures for establishing uniform statistical standards, concepts and methods, as well as for co-ordinating legal dispositions and technical procedure relating to the collection, compilation and publication of statistics which have a bearing on the accomplishment of the Central American Economic integration programme;

2. To recommend that Governments, in collaboration with the secretariat and the aforementioned bodies, arrange meetings between their directors of statistics to settle the details of implementing the recommendation in clause 1 above.

TRANSPORT IN CENTRAL AMERICA

Resolution 21 (AC.17), adopted on 15 October 1953
(E/CN.12/AC.17/36)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that the development, improvement and co-ordination of transport are of fundamental importance to the economic integration of Central America, and

Bearing in mind the extensive report on this subject, prepared by the Joint Mission of the Technical Assistance Administration and the Economic Commission for Latin America with the collaboration of the International Civil Aviation Organization (E/CN.12/356), as well as the results of the Transport Seminar held at San José, Costa Rica, in June 1953,

Resolves:

1. To take note with satisfaction of the report on Transport in Central America, prepared by the Joint Mission of the Technical Assistance Administration and the Economic Commission for Latin America with the collaboration of the International Civil Aviation Organization, and to express its thanks to the Mission for the work accomplished;

2. To take note with satisfaction of the report on the Transport Seminar held at San José, Costa Rica;

/3. To recommend

3. To recommend to the Central American Governments that they give their fullest attention to these reports with the aim of implementing, within their possibilities and in accordance with their own transport policy, those of the Mission's recommendations which are of interest to the economic development of their respective countries and, in particular, to the economic integration of Central America;

4. To request the secretariat to prepare, after individual negotiations with each Central American Government and in consultation or collaboration with the pertinent international bodies, draft projects serving as a basis for implementing those recommendations of regional interest contained in the aforementioned reports, and to approach governments in due course to establish the best means for arranging meetings at which officials of the competent ministries and Government agencies are represented, in order to discuss the following subjects:

(a) Co-ordination of international land communications as regards plans, specifications, procedure and other aspects of highway construction;

(b) Regulation of international road traffic with the aim of adopting uniform standards for facilitating such traffic and which will allow for the removal of unnecessary obstacles thereto;

(c) Regulation and improvement of maritime and port services;

(d) Joint action designed to effect a reduction in maritime freight and insurance charges, as well as the elimination of discriminatory measures in such matters;

(e) Regulation and expansion of Central American air services;

(f) Co-ordination and improvement of statistics relating to land, sea and air transport; and

(g) Other factors which, in the opinion of Governments, are considered as being of common interest;

5. To request the secretariat to undertake research into the real and potential traffic between Central American ports, and between these and foreign ports, both through trans-shipment at Panama and through direct services, with a view to determining whether there is any economic basis for establishing a Central American merchant shipping line, to provide efficient maritime services; if such an economic basis exists, to formulate a plan

/for establishing

for establishing a Central American merchant shipping line, to be submitted to Governments and indicating alternative forms of organization and financing, while giving due consideration to present shipping lines of national registration;

6. To request the secretariat to study, in consultation with the Central American Directors of Civil Aviation, the possibilities for creating a Central American air transport company and to submit such a report to Governments, proposing possible solutions and paying due consideration to national companies already in existence;

7. To recommend to Governments that, to ensure the accomplishment of the work indicated in this resolution, they should give the secretariat the co-operation and assistance essential for obtaining optimum results.

FINANCING OF ECONOMIC DEVELOPMENT

Resolution 22 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/37)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that, in fulfilment of resolution 5 (AC.17) adopted at the Committee's first session, the secretariat has submitted the Preliminary report on financing economic development and integration in Central America (E/CN.12/AC.17/30) and that it is desirable to adopt measures designed to increase and channel savings and to develop stock markets,

Resolves:

1. To take note with satisfaction of the Preliminary report on problems of financing economic development and integration in Central America presented by the secretariat;

2. To recommend the Governments of the Central American republics:

(a) To undertake monetary, banking, fiscal and other measures designed to increase savings and to channel them towards the financing of domestic and regional economic development, and

/(b) To give

- (b) To give the aforementioned report the widest possible circulation, particularly among financial circles in their respective countries;
3. To recommend the reserve banks of Central America to study the said report and to adopt or encourage those measures which in their opinion are desirable for achieving the aims outlined in the preceding paragraph, requesting them also at their periodic meetings, to consider and agree upon methods for Central American co-ordination in this matter;
4. To request the secretariat, in co-operation with the competent international agencies, to collaborate with the Central American Governments and reserve banks in carrying out the aims of this resolution and, in particular, to continue to study the financial problems related to the Central American economic integration programme.

ADVANCED SCHOOL OF PUBLIC ADMINISTRATION

Resolution 23 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/38)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that the Governments of the Central American republics requested the United Nations Technical Assistance Administration to undertake a study on the establishment of an advanced School of Public Administration and that, following a discussion of the general outlines of the project between each Government and the expert nominated for this purpose, the said study has been submitted to this Committee (E/CN.12/AC.17/31), and

Considering that the project for establishing the said School has been welcomed with enthusiasm and that it is desirable for the teaching work to begin as soon as possible,

Resolves:

1. To take note with satisfaction of the report prepared by the Public Administration Division of the United Nations Technical Assistance Administration, submitted by the secretariat;

/2. To recommend

2. To recommend the Governments of the Central American Republics:

- (a) To approach the United Nations Technical Assistance Administration so that it may establish an Advanced School of Public Administration along the general lines proposed in the aforementioned report, with the participation of the Governments and in accordance with supplementary agreements that may be signed for that purpose, bearing in mind the preliminary steps already taken;
- (b) To establish, for the supplementary agreements mentioned in the preceding paragraph, procedure for consultation and co-operation to provide the School with juridical status, thus guaranteeing the continuity and permanence of this programme;

3. To request the Technical Assistance Administration and participating Governments to reach agreement as soon as possible on the recommendations for establishing the school contained in this resolution, bearing in mind the generally expressed desire at this session that the first teaching term should begin on 1 March 1954.

TECHNICAL ASSISTANCE

Resolution 24 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/39)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that under resolution 2 (AC.17) of the Committee's first session it was agreed to request the United Nations and its specialized agencies for technical assistance to study specific activities of interest for the economic integration programmes of Central America,

Considering that the United Nations Technical Assistance Board and its member organizations agreed to provide such assistance and that the activities of the several missions have begun or are about to begin, in accordance with the requests put forward by the Governments of the Central

/American Republics;

American republics,

Considering that some of the requests submitted are still pending and similarly that certain new technical assistance requirements, to continue the work already begun, may arise as a result of the activities of those missions,

Resolves:

1. To express its appreciation to the Technical Assistance Board and to the Technical Assistance Administration, as well as to the Food and Agriculture Organization, the International Labour Organisation, the United Nations Educational, Scientific and Cultural Organization and the International Civil Aviation Organization, for the efficient way in which they have met the Government requests relating to technical assistance for the Central American economic integration programmes;

2. To request the Technical Assistance Board and the specialized agencies of the United Nations, when establishing their 1954 budgets and within the bounds of their financial resources, to continue giving the same importance to the Central American economic integration programme, so that early attention may be given to those requests which have not yet been approved, those arising as a result of the deliberations of this Session and those which may arise out of the activities of the missions which began work during 1953, giving the following order of priority to the projects, according to individual agencies:

- (a) Advanced School of Public Administration
- (b) Transport in Central America
- (c) Trade Nomenclature and Regulations
- (d) Institute for Industrial Technological Research
- (e) Electric power
- (f) Technical training in the industrial and administrative fields
- (g) Forest products, pulp and paper
- (h) Livestock and dairy products
- (i) Cotton and the textile industry
- (j) Vegetable oils and fats;

/3. To recommend

3. To recommend that the Governments of the Central American republics should reach agreement with the United Nations Technical Assistance Board and the specialized agencies as soon as possible concerning the signing of the agreements, the contribution of the countries concerned and the number of experts who may be required for the 1954 programme.

THE COMMITTEE'S RULES OF PROCEDURE

Resolution 25 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/40)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that resolution 9 (IV) of the Economic Commission for Latin America, adopted on 16 June 1951 at its fourth session, provides a general indication of the functions of this Committee, as a permanent body for economic co-operation between the Central American countries;

Considering that under resolution 11 (AC.17), adopted by this Committee on 27 August 1952 during its first session, its terms of references were laid down and its rules of procedure approved; and

Considering that the experience gained indicates the advisability of introducing some modifications relating to the organization and functions of the Committee, in order to include the participation of those senior officials responsible for the economic policy of the Central American countries and to establish closer inter-governmental collaboration to solve common economic problems, particularly those relating to economic integration,

Resolves:

1. To approve the Committee's rules of procedure according to the text attached to this resolution;
2. To abrogate the previous rules of procedure approved under resolution 11 (AC.17) of 27 August 1952.

THE RULES OF PROCEDURE OF THE CENTRAL AMERICAN
ECONOMIC CO-OPERATION COMMITTEE

Organization

Chapter I.

Rule 1. The Central American Economic Co-operation Committee is a permanent organization of the Economic Commission for Latin America, on the Government level.

Rule 2. The Ministers of Economy of the Central American republics shall be ex officio members of the Committee, together with such other Ministers of State as the respective Governments may wish to accredit as members thereof.

In the event of any of the Ministers of Economy being unable to attend a meeting, he may be represented by a special accredited delegate.

Rule 3. The members of the Committee may be accompanied by advisers and experts nominated by Governments.

Such advisers and experts may represent their respective chief delegates with the right to speak and to vote at any meeting of the Committee or of its subsidiary bodies.

Rule 4. The Governments of the Central American Republics shall grant their Ministers, as well as special delegates, advisers and experts, the usual credentials required for United Nations meetings.

Rule 5. The Chairman of the Committee shall be the Minister of Economy in the host country.

He shall continue in office for the period between one session to that immediately following it.

Rule 6. If the Chairman ceases to be his country's Minister of Economy, he shall be replaced as Chairman by the person succeeding him in that post.

Rule 7. At each session of the Committee, a rapporteur shall be elected, who may be one of the Minister's delegates, advisers or experts.

Rule 8. The Chairman shall participate in the meetings of the Committee as such, and not as the representative of the Government accrediting him. In this case, another member of his delegation shall represent the government concerned.

Rule 9. The Executive Secretary of the Economic Commission for Latin America shall be responsible for the secretariat of the Committee.

Chapter II. Functions

Rule 10. The following are the functions of the Committee:

(a) To propose to the participating Governments such concrete measures as are directed towards the gradual and progressive integration of the economies of the Central American countries and to co-ordination of their domestic programmes of economic development.

(b) To determine the carrying out of research and study in connexion with the objectives outlined immediately above.

(c) To direct and channel the utilization of technical assistance in matters pertaining to the integration of the Central American economies; to co-ordinate the requests made by these Governments for technical assistance in such matters; to superintend the progress and execution of the work done by experts and to take note of the reports and studies submitted by them.

(d) To establish sub-committees for dealing with subjects related to the economic integration of Central America and to sponsor meetings of experts.

Chapter III. Sessions

Rule 11. Ordinary sessions of the Committee shall be held once a year and the Ministers shall attend personally. In the event of any one of them being unable to attend, he shall be represented by a special delegate accredited by his Government.

At these meetings, the Committee shall, in agreement with the Executive Secretary of the Economic Commission for Latin America, determine the approximate date and place of the next meeting.

Rule 12. In addition to the sessions referred to in the preceding rule, the Committee may hold other meetings, attended by the Ministers or their delegates, when the continuity of the work so requires.

In such cases, the Chairman of the Committee, on his own initiative or at the request of any one of the Governments, shall issue the necessary notice of convocation, after consultation with the remaining Governments and in agreement with the Executive Secretary of the Economic Commission for Latin America.

Rule 13. The quorum for any session shall consist of a simple majority of members, but voting on any principal motion may only take place provided all the member countries are represented. Each country shall have only one vote. Decisions on principal motions shall be unanimous, but those on procedure may be taken by a simple majority of votes. In the event of any doubt as to whether a decision is principal or procedural, the voting must be unanimous. Abstentions shall not affect such unanimity.

Rule 14.

Rule 14. The conduct of the debates and voting procedure shall follow the usual parliamentary procedure. In the event of doubt, the Rules for the Economic Commission for Latin America shall be applied.

Rule 15. At the close of each Session, the Committee shall detail the result of its work to the Economic Commission for Latin America, in a report to contain a summary of the work and the full text of the resolutions adopted.

Chapter IV. The secretariat

Rule 16. The Executive Secretary shall act in that capacity at all meetings of the Committee and of its subsidiary bodies. He may appoint another member of the secretariat to take place at any meeting.

Rule 17. The Executive Secretary, or his representative, may make either oral or written statements at any meeting on any question under discussion.

Rule 18. The Executive Secretary shall be responsible for the organization and preparation of the sessions. At the beginning of each session, he shall present a progress report on the work carried out during the period between sessions. During that interval, the Executive Secretary shall, as far as possible, keep the participating Governments informed as to the progress of the work.

Rule 19. The Executive Secretary shall, at least thirty days before the inaugural meeting of each session, distribute to the Member Governments copies of the provisional agenda, together with the reports and documents to be discussed at that session.

Chapter V. General rules

Rule 20. In the event of any matter arising which has not been foreseen in the present rules, the pertinent rules of the Economic Commission for Latin America shall be applied, provided they are deemed suitable for the purposes of the Committee.

Rule 21. The Committee may at any time amend the present rules of procedure.

Adopted at San José, Costa Rica, on 16 October 1953.

/DATE AND PLACE

DATE AND PLACE OF THIRD SESSION

Resolution 26 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/41)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Considering that under resolution 14 (AC.17), adopted at its first session, the Committee agreed to take note of the generous offer of the Government of Nicaragua to hold the third session at Managua and to accept that invitation with pleasure,

Resolves to repeat its acceptance and to empower the Chairman of the Committee, in agreement with the Executive Secretary of the Economic Commission for Latin America, to establish the date for the third session.

VOTE OF THANKS TO THE GOVERNMENT AND AUTHORITIES OF COSTA RICA

Resolution 27 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/42)

The Committee of the Ministers of Economy on Economic Co-operation in Central America,

Resolves to express its sincerest gratitude to the Government and authorities of the Republic of Costa Rica for the generous hospitality offered to the delegations and the secretariat of the Economic Commission for Latin America, as well as for the efficient measures taken to ensure the smooth running of the meetings.

VOTES OF THANKS TO THE OFFICERS OF THE COMMITTEE, THE SECRETARIAT AND THE
REPRESENTATIVES OF THE UNITED NATIONS

Resolution 28 (AC.17), adopted on 16 October 1953
(E/CN.12/AC.17/43)

The Committee of the Ministers of Economy on Economic Co-operation
in Central America,

Resolves to express its warmest thanks:

(a) To the Chairman of the Committee, Ing. Alfredo E. Hernandez Volio, Minister of Economy and Finance of Costa Rica, for the efficiency with which he has conducted the proceedings of the Committee, thus contributing to the successful accomplishment of the work;

(b) To the representative of the Executive Secretary of the Economic Commission for Latin America and other members of the secretariat for the preparation of the Session and of the technical reports which provided the Committee with a sound basis for its discussions;

(c) To the representatives of the United Nations Technical Assistance Administration and Technical Assistance Board, as well as to those of the Food and Agriculture Organization, the United Nations Educational, Scientific and Cultural Organization, the International Labour Office, and the International Civil Aviation Organization, for having attended the meeting and for having given explanatory comments of great value in clarifying the discussion of various important topics.

3. Extraordinary session *

FOREST RESOURCES IN CENTRAL AMERICA

Resolution 1 (CCE) adopted on 6 May 1955
(E/CN.12/CCE/16)

The Central American Economic Co-operation Committee,

Considering that, in accordance with resolution 2 (AC.17), paragraph 2 (e), the secretariat has presented a report on forest resources and the possibilities of pulp and paper production in Central America, prepared

* San Salvador, El Salvador, 4-9 May 1955

by the Food and Agriculture Organization of the United Nations, with the collaboration of the Technical Assistance Administration and the secretariat, and

Considering that forest resources are an important source of wealth in Central America, both for the economic development of each country as well as for the achievement of the aims of economic integration,

Resolves:

1. To take note with satisfaction of the Report on Forest Resources and the Possibilities of Pulp and Paper Production in Central America, prepared by experts of the Food and Agriculture Organization of the United Nations, with the collaboration of the Technical Assistance Administration and the secretariat of the Committee;

2. To express its appreciation to these organizations for completing the first stage of the forestry programme;

3. To transmit this report to the Ministers of Agriculture of the Central American countries for their study and consideration with a view to:

(a) Implementing its recommendations for the development and protection of the forest resources of each country through the adoption of uniform policies on conservation and on improved systems for the utilization of lumber and other forest products:

(b) Implementing in the respective countries the recommendations of the experts concerning mapping, forest inventories, the study of new species, land tenure and forestry legislation; expansion of forest services, improvement of methods of lumber processing, the formation of a central organization for lumber industries, market studies and the creation of subsidiary industries;

(c) To request the Technical Assistance Board to provide an expert in forestry education who would co-operate with the Inter-American Institute of Agricultural Sciences in broadening the means of instruction for forestry.

PULP AND PAPER INDUSTRY

Resolution 2 (CCE), adopted on 6 May 1955
(E/CN.12/CCE/17)

The Central American Economic Co-operation Committee,

Having noted with satisfaction the Report on Forest Resources and the Possibilities of Pulp and Paper Production in Central America, and having expressed its appreciation to the international agencies responsible,

Considering that forest resources in certain Central American areas have characteristics favourable to large-scale industrial development,

Considering that, given the extent of the Central American market for pulp, paper, cardboard and other products and the considerable cost of a plant of economic size, it appears advisable that the Central American project on pulp and paper consist of a single plant located in whichever zone presents the best possibilities for immediate development; and

Considering that the Republic of Honduras, in accordance with this report, offers the most favourable conditions for the establishment of an industry of this type,

Resolves:

1. To request the Technical Assistance Board to provide the following experts to make a complete study of the location, development and financing of a pulp and paper mill in Honduras, in whichever zone presents the best conditions from the point of view of forest resources, costs, transport, power and markets:

(a) An expert in forest resources and forest management;

(b) An expert on the location of pulp and paper mills, costs, and markets;

(c) An expert to draw up plans for a pulp and paper mill and related industries;

(d) An expert to draw up plans for the financing of this industry taking into account the advisability of combining all or some of the following factors: the support of Governments, the aid of private enterprise either Central American or foreign and the participation of international financial organizations;

/2. To recommend

2. To recommend to Governments that in formulating their development plans they bear in mind the project for a Central American pulp and paper industry and take appropriate measures to expand the Central American market for the products of this industry;

3. That the continuation of the studies and projects relating to this industry should not delay or interfere with the consideration and formulation of projects relating to the establishment of other Central American industries which would tend to make the economic integration of the area effective.

STATISTICAL CO-ORDINATION

Resolution 3 (CCE), adopted on 6 May 1955
(E/CN.12/CCE/18)

The Central American Economic Co-operation Committee,

Considering that resolution 20 (AC.17), adopted by the Committee at its Second Session, held in San José in 1953, recommended that the Governments hold "meetings of the Directors of Statistics to determine how to put into effect appropriate measures for establishing uniform statistical standards, concepts and methods, and for co-ordinating the laws and procedures relating to its compilation, preparation and publication of relevant statistics with a view to the successful promotion of the Central American economic integration programme"; and that in conformity with the above resolution the secretariat has submitted a report on statistical co-ordination (E/CN.12/CCE/8),

Considering that the standardization of statistical systems and methods in each of the countries, as well as in the region as a whole, will promote the Central American economic integration programme, both at the project stage and in its evaluation at later stages,

Considering the urgent need for basic improvements in Central American statistics, which are fundamental to the economic integration programme,
and

/Considering that

Considering that the measures adopted in this field should be based, as far as possible, on the international and inter-American standards established by the appropriate agencies of the United Nations and the Inter-American system,

Resolves:

1. To take note with satisfaction of the report submitted by the secretariat (E/CN.12/CCE/3), in which the problem of Central American statistical co-ordination is examined with a view to the needs of Central American economic integration.

2. To establish a Statistical Co-ordination Sub-Committee composed of the Directors-General of Statistics of each country and advisers from the secretariat, the United Nations Statistical Office and the Inter-American Statistical Institute, with headquarters in San Salvador but empowered also to meet in any one of the other capital cities of the Central American countries when need arises. This Sub-Committee will have the following terms of reference:

(a) To propose, after study, measures considered advisable for the purpose of establishing uniform statistical standards, concepts and methods based on the recommendations of the international and inter-American agencies;

(b) To draw up plans to serve as a basis for the adoption and co-ordination of laws and procedures relative to the compilation, preparation and publication of Central American statistics;

(c) To suggest plans for mutual collaboration and technical interchange aimed at enabling each country to benefit from the experiences of the others;

(d) To promote the establishment of training centres and technical courses for the personnel of the various Offices of Statistics, with the co-operation of the international and inter-American agencies;

(e) To consider the possibility of joint publication of the basic statistics of the Central American countries.

The Sub-Committee, in drawing up its work programme, should give priority to those statistics that are required for the Central American economic integration programme.

/3. To recommend

3. To recommend that the secretariat facilitate the establishment of this Sub-Committee as soon as possible, so that a report on its activities and work programme may be submitted to the Committee at its next session.

CUSTOMS NOMENCLATURE AND TRAINING

Resolution 4 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/19)

The Central American Economic Co-operation Committee,

Considering that the Central American Trade Sub-Committee established under resolution 18 (AC.17) has submitted reports to the Committee on its first and second sessions (E/CN.12/CCE/9 and 14),

Considering that at its first session, under resolution 2 (SC.1), the Sub-Committee considered and approved the Draft Standard Export Nomenclature for Central America (E/CN.12/CCE/SC.1/4), and that this nomenclature is adapted to the needs of customs and trade statistics for exports in Central America,

Considering that at its second session, under resolution 8 (SC.1), the Sub-Committee approved the Draft Code Manual for the Standard Central American Customs Nomenclature (SCACN), recommended that member governments give full effect to the Manual, and also requested that the Committee urge governments to adopt the SCACN as soon as possible,

Considering that under resolution 8 (SC.1) the Sub-Committee also requested that the secretariat prepare a printed edition of the SCACN and the Code Manual to facilitate its use in Central America, and

Considering that in its resolution 7 (SC.1) the Sub Committee emphasized the need of better training for customs personnel in Central America, in relation to the adoption of the new nomenclature,

Resolves:

1. To approve the reports of the first and second sessions of the Central American Trade Sub-Committee (E/CN.12/CCE/9 and 14) and to express

/its appreciation

to the Sub-Committee, the secretariat and the other agencies participating in this Sub-Committee for their efficient work;

2. To approve the Code Manual of the Standard Central American Customs Nomenclature, with its alphabetical index, drawn up by the Sub-Committee and to recommend its adoption to those governments which have adopted or are adopting the Nomenclature;

3. To recommend to Governments which have not already done so, the adoption of the Standard Export Nomenclature for Central America approved by the Committee at its first session under resolution 2 (SC.1);

4. To take note of the progress made in the adoption of the Standard Central American Customs Nomenclature and to express the hope that it will be used at an early date by all the countries in the area;

5. To adopt the suggestion made by the Sub-Committee in its resolution 7 (SC.1) to recommend to the Governments that they improve the training of their customs officials and that they thus establish more adequate educational facilities, taking into account among other aspects the guidance and assistance which can be given by the Advanced School of Public Administration for Central America;

6. To request the Advanced School of Public Administration for Central America to provide courses in customs administration and to co-operate with the Governments in the training of customs personnel;

7. To support the request made by the Sub-Committee under resolution 8 (SC.1) that the secretariat prepare a printed edition of the Standard Central American Customs Nomenclature and its Code Manual, including the alphabetical index, for use by statistical and customs services in Central America and by the public in general; further, to urge the secretariat, bearing in mind the urgency which exists for these documents, to grant the necessary priority for this publication so that it is available during the course of 1955.

ADVANCED SCHOOL OF PUBLIC ADMINISTRATION FOR CENTRAL AMERICA

Resolution 5 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/20)

The Central American Economic Co-operation Committee,

Considering that the Director of the Advanced School of Public Administration for Central America created under resolution 23 (AC.17) has submitted to the Committee a report on the first year of the school (E/CN.12/CCE/12 and ESAPAC/256/IG.21), and

Considering that the accomplishments of the School have been in accordance with the purposes for which it was created and have been of positive benefit to both the Central American countries and to the Central American economic integration programme,

Resolves:

1. To approve the report of the Director of the Advanced School of Public Administration on the first year of the school, and to express to him and to the teaching staff its appreciation for the efficient way in which they have discharged their responsibilities;
2. To take note with satisfaction of the progress and results obtained so far in the development of the teaching programme of the school.

CENTRAL AMERICAN RESEARCH INSTITUTE FOR INDUSTRY

Resolution 6 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/21)

The Central American Economic Co-operation Committee,

Considering that in accordance with resolution 6 (AC.17), approved during the first session, the secretariat has submitted a report on the organization of a Central American Research Institute for Industry (ST/TAA/J/CENTRAL AMERICA/R.2), prepared by a mission of the Technical Assistance Administration,

/Considering

Considering that the services of an institute of technology and research will contribute to exploring future industrial possibilities and to a more economic and efficient operation of existing plants, as well as to the diffusion of scientific, industrial, and technological information in the Central American area, and

Considering that the Governments of El Salvador and Guatemala have offered to be the host to the Institute and have agreed to contribute equally to the construction of a suitable building and to the installation of the necessary basic services,

Resolves:

1. To take note with satisfaction of the report submitted by the United Nations Technical Assistance Administration on the organization of a Central American Research Institute for Industry and to thank the experts for the success of their mission;

2. To recommend to the Governments of Central America:

(a) That they proceed to establish a Central American Research Institute for Industry, with adequate legal status, along the general lines of the expert report, with the participation of the governments and in accordance with the agreements that may be carried out for this purpose between the Governments;

(b) That they request the United Nations Technical Assistance Administration to give the necessary assistance for the operation of the Institute and for the development of its activities;

(c) That in accordance with the financial plan proposed in the report they contribute funds as indicated in this plan.

3. To authorize the Chairman of the Committee to take whatever steps may be necessary to implement the project at an early date, in consultation with the Regional Representative of the Technical Assistance Board;

4. To express its appreciation equally to the Governments of El Salvador and Guatemala for their offers to act as host to the Institute and to provide the building and basic services, and to decide, after an objective evaluation of general conditions prevailing in each country,

/that the

that the Institute be established in Guatemala.

STANDARDIZATION OF WEIGHTS AND MEASURES

Resolution 7 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/22)

The Central American Economic Co-operation Committee,

Considering that, although the metric system is in effect in Central America, there is still a great diversity of weights and measures in use, the equivalents of which vary from country to country;

Considering That the standardization of weights and measures in the area and the effective application of the metric system is of fundamental importance to the aims of the Central American integration programme;

Considering that the second session of the Central Banks of Central America requested the Ministers of Economy and Finance, under resolution 8, to undertake studies on the weights and measures used in their countries,

Resolves to recommend that Governments request the Technical Assistance Board to provide the services of an expert who would, in consultation with the secretariat and bearing in mind the work being accomplished by Central American Central Banks, start a study on the weights and measures used in the area with the aim of obtaining an effective application of the metric system and to recommend the measures to be taken for this purpose.

CURRENT STATUS OF THE CENTRAL AMERICAN ECONOMIC INTEGRATION
PROGRAMME

Resolution 8 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/23)

The Central American Economic Co-operation Committee,

Considering that the secretariat has submitted a report on the work done since the second session (E/CN.12/CCE/3), in which the various studies and projects that have been assigned to it are described, and

/Bearing in

Bearing in mind resolution 2 (AC.17), adopted at the first session, where some of the productive activities that are considered to be of top priority for the Central American economic integration programme are indicated,

Resolves:

1. To take note with satisfaction of the report of the Executive Secretary on the work accomplished since the second session;
2. To reaffirm its interest that, within the Central American economic integration programme as a whole, there be an adequate relationship between the basic projects of an institutional nature and those relating to the promotion of productive activities and the establishment of new industries suitable for Central America;
3. In view of the changes in the Central American economies since the priorities enumerated in resolution 2 (AC.17) were established, and having regard to the views expressed at this session, to request that the secretariat prepare an evaluation of the above-mentioned priorities for submission to the Committee at its next session, with whatever additions or changes may seem to be advisable for early accomplishment of the aims of the programme.

TECHNICAL INDUSTRIAL TRAINING

Resolution 9 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/24)

The Central American Economic Co-operation Committee,

Considering that the secretariat, in accordance with resolution 7 (AC.17) has submitted a Preliminary Report on the possible creation of a Central American Institute for Technical Industrial Training established by the United Nations Educational, Scientific and Cultural Organization and the International Labour Organisation,

/Considering

Considering that an improvement in the level of technical training in the five Central American countries is of fundamental importance for the integration programme and over-all economic development,

Considering that an improvement in technical training in Central America must include those general aspects of education pertinent to the problems of the Central American republics,

Resolves:

1. To express its interest in the Preliminary Report on the possible creation of a Central American Institute for Technical Industrial Training, submitted by the United Nations Educational, Scientific and Cultural Organization and the International Labour Organisation, and to thank these organizations for their offer to contribute to the establishment and financing of such an institute;

2. To recommend to Governments:

(a) That, through their Ministries of Education and Labour, they give due consideration to this report and, in the spirit of Central American Co-operation that characterizes the Committee's activities, they request the United Nations Educational, Scientific and Cultural Organization and the International Labour Organisation to proceed with the necessary projects, at the national as well as the regional level, for achieving the improvement in technical training that is so vitally important to Central American economic integration;

(b) That, in view of the need for correlating educational and cultural progress with economic development, the Governments arrange for periodic meetings of their Ministers of Education, with the collaboration of the United Nations Educational, Scientific and Cultural Organization, for the purpose of promoting and co-ordinating the educational and cultural development of the area.

3. To thank the Government of Guatemala for its offer, expressed through its representative at the Committee, that the first meeting of the Central American Ministers of Education, referred to in part (b) of the foregoing paragraph, should be held in that country and to suggest

/that the

that the meeting be held as soon as possible.

4. To authorize the Chairman of the Committee:

(a) To make immediate contact with the United Nations Educational, Scientific and Cultural Organization and the International Labour Organisation requesting that the funds assigned in 1955 for the Central American Institute for Technical Industrial Training project be kept available, in order to indicate to those agencies before 30 June 1955 the interest that the Governments may have in altering the application of the above-mentioned funds, on the understanding that they will in any case be used for Central American technical training in industry;

(b) After consultations have taken place among the interested Ministers in each country, to inform the Regional Representative of the Technical Assistance Board, before 30 June 1955, of the decision taken by the Governments in regard to the recommendations of the report cited in paragraph 1.

TECHNICAL ASSISTANCE

Resolution 10 (CCE), adopted on 7 May 1955
(E/CN.12/CCE/25)

The Central American Economic Co-operation Committee,

Considering That under resolution 24 (AC.17) of the second session of the Committee it was agreed to request the United Nations and its specialized agencies for technical assistance to study activities of interest to the programmes of economic integration in Central America,

Considering that the Technical Assistance Board and its member organizations have given this assistance and have established various missions in accordance with the requests presented by the Central American Governments,

Resolves:

1. To express its appreciation to the Technical Assistance Board and Technical Assistance Administration, the United Nations Food and Agriculture

/Organization,

Organization, the International Labour Organisation and the United Nations Educational, Scientific and Cultural Organization, for the effective way in which they have attended to the requests of the Governments for technical assistance for the Central American economic integration programme;

2. To request the Technical Assistance Board and the specialized agencies of the United Nations that, when establishing their budgets for 1956 and within their financial possibilities, they continue to give high priority to the Central American Integration Programme. As a result, that they give consideration to the projects arising from this extraordinary session and from the forthcoming third session, as well as to those which may lead from the missions which have begun or are finishing their work during the present year, giving priority to the technical assistance projects set forth below:

(A) Technical Assistance Administration

- (1) Advanced School of Public Administration
- (2) Central American Research Institute for Industry
- (3) Forest resources, pulp and paper (in collaboration with FAO)
- (4) Industrial economics
- (5) Highway transport
- (6) Weights and measures
- (7) Electric energy
- (8) Maritime transport
- (9) Customs
- (10) Cotton and textile industries (in collaboration with FAO)

(B) Food and Agriculture Organization

- (1) Forest products, pulp and paper (in collaboration with TAA)
- (2) Livestock and dairy products
- (3) Agricultural economics
- (4) Cotton and textile industries (in collaboration with TAA)

(C) International Labour Organisation and United Nations Educational, Scientific and Cultural Organization

- (1) Co-ordination of technical training in Central America

3. To recommend to Governments that in drawing up their national programmes of technical assistance to be submitted to the Technical Assistance Board, they include the integration projects in the highest priority group;

4. To recommend that Governments reach agreement with the Technical Assistance Board and the specialized agencies on the signing of the agreements, the contributions of the countries and the number of experts that may be needed for the 1956 programme.

INTER-CENTRAL AMERICAN TRADE AND TRADE POLICY

Resolution 11 (CCE), adopted on 9 May 1955
(E/CN.12/CCE/26)

The Central American Economic Co-operation Committee,

Considering that the secretariat, in accordance with resolution 19 (AC.17), has submitted a report analysing the prospects of inter-Central-American trade (E/CN.12/CCE/10) and a second report on trade policy and free trade in Central America (E/CN.12/CCE/11),

Considering that the delegations of Costa Rica and Nicaragua have expressed their intention to submit drafts of similar resolutions upon the intensification of inter-Central American trade and upon the possible drawing-up of a multilateral free trade treaty for Central America,

Considering that bilateral free trade agreements are now being studied by several of the Central American Governments and that, in applying the treaties now in force, problems have come to light and situations have arisen that require more detailed study by all the Central American Governments,

Considering that Governments need to evaluate the experience up to the present, before working out a common criterion on inter-Central American trade policy,

/Resolves:

Resolves:

1. To take note with satisfaction of the reports submitted by the secretariat analysing the prospects of inter-Central American trade and on Central American trade policy and free trade;

2. To recommend that Governments intensify their efforts to ratify bilateral free trade treaties among the respective countries;

3. To revise the terms of reference of the Central American Trade sub-Committee, created by resolution 18 (AC.17), requesting it, in addition, and bearing in mind conclusions submitted in the reports to which reference is made in paragraph 1 above and the views on inter-Central American trade policy expressed at this session:

(a) To draw up a preliminary draft for a multilateral Central American free trade treaty;

(b) To study those commodities, whether they are raw materials, semi-manufactured or manufactured products, which might be included in a minimum list of commodities to be subject to free trade in Central America; and

(c) To initiate, in reference to this list, work toward possible equalization of customs duties on commodities which are important for Central American economic integration.

4. To postpone until the third session of the Committee a detailed consideration of a common criterion on Inter-Central American trade policy, in the light of the conclusions that the Central American Trade Sub-Committee may have reached by that time.

VOTE OF THANKS TO THE GOVERNMENT AND AUTHORITIES OF EL SALVADOR

Resolution 12 (CCE), adopted on 9 May 1955
(E/CN.12/CCE/27)

The Central American Economic Co-operation Committee,

Resolves:

1. To express its deep appreciation to the Government and authorities of El Salvador for the generous hospitality extended to the delegations, to the secretariat and to the representatives of the specialized agencies, and to express its satisfaction with the effective arrangements that were made to ensure the successful operation of the session;
2. To request the Minister of Economy of El Salvador to convey the Committee's thanks to the Compañía Salvadoreña del Café for having furnished their conference rooms for this session.

VOTE OF THANKS TO THE CHAIR, THE SECRETARIAT
THE REPRESENTATIVES OF THE UNITED NATIONS AND
THE SPECIALIZED AGENCIES AND THE AGENCIES OF
THE INTER-AMERICAN SYSTEM

Resolution 13 (CCE), adopted on 9 May 1955
(E/CN.12/CCE/28)

The Central American Economic Co-operation Committee,

Resolves to express its deep appreciation

- (a) to the Chairman of the Extraordinary Session, Dr. Manuel Antonio Ramírez, Acting Minister of Economy, El Salvador, for the effective way in which he conducted the proceedings of the session, thus contributing to the successful conclusion of the work;
- (b) To the representative of the Executive Secretary of the Economic Commission for Latin America and to the other members of the secretariat, for organizing the session and for the reports that provided the Committee with a solid basis for their discussions;

/(c) To the

(c) To the representatives of the United Nations Technical Assistance Board and the Technical Assistance Administration, the International Labour Organisation, the Food and Agricultural Organization, and the United Nations Educational, Scientific and Cultural Organization, for the reports they submitted to the session, as well as to the representatives of the International Civil Aviation Organization and those of the International Bank for Reconstruction and Development for the interest they had shown in the work of the Committee;

(d) To the representatives of the Inter-American Economic and Social Council and the Inter-American Statistical Institute for their attendance at the session and their participation in the discussions.

4. Third session *

LIVESTOCK AND DAIRY INDUSTRIES

Resolution 14 (CCE), adopted on 25 January 1956 (E/CN.12/CCE/42)

The Central American Economic Co-operation Committee,

Considering that in accordance with resolution 2 (AC.17) the secretariat has submitted a technical study and a preliminary note on the present condition and prospects of the livestock and dairy industries in Central America, prepared by the United Nations Food and Agriculture Organization (FAO/55/7/4320 and 55/11/8205), and

Considering that livestock is one of the principal sources of wealth in Central America, susceptible of a considerable long-range improvement,

Resolves:

1. To take note with satisfaction of the Report on the technical aspects of the livestock industry in Central America prepared by experts of the United Nations Food and Agriculture Organization, as well as of the Preliminary Note on some economic aspects of the livestock industry in Central America prepared by the same organization, and to express its thanks to this Organization for the valuable data which it has collected

* Managua, Nicaragua, 23-29 January 1956.

/and for

and for the orientation and recommendation contained in the reports;

2. To transmit the technical report to the Ministers of Agriculture of the Central American countries for study and consideration, with a view to:

- (a) Putting into practice the recommendations for the improved development of the livestock and dairy industries in the different countries of Central America, through the adoption, jointly or by country, in accordance with the circumstances and the practical possibilities, of proper means for developing livestock breeding and an improved utilization of meat and milk under the most satisfactory technical conditions;
- (b) To determine, in agreement with the Ministers of Economy of each country, the goals which can be best achieved through coordinated action among the Central American countries, particularly in regard to intra-regional trade in livestock and livestock products, as well as milk, so that these objectives may be considered at a future session of the Committee.

3. To invite the Ministers of Agriculture of Central America, under the terms of resolution 25 (AC.17), to participate at future sessions of this Committee in the discussion of matters the joint consideration of which by the Ministers of Agriculture and of Economy may be considered necessary;

4. To expand the information already collected and set forth in the Preliminary Note on Economic Aspects, striving to draw up a comprehensive study of the livestock economy in Central America.

TEMPORARY IMPORTATION OF ROAD VEHICLES

Resolution 15 (CCE), adopted on 25 January 1956
(E/CN.12/CCE/43)

The Central American Economic Co-operation Committee,

Considering that the increase in international road traffic in Central America depends in large measure on an increase in facilities and a standardization of the requirements to which this traffic is subject, particularly in regard to the customs procedures which are applied to the temporary importation of vehicles,

Considering that the report on Transport in Central America, Regulation of International Road Traffic (TAA/LAT/3), submitted by the secretariat and prepared by an expert of the United Nations Technical Assistance Administration under the terms of resolution 21 (AC.17) of this Committee, contains an analysis of the different aspects of this subject, as well as a description of the regulations and practices currently in effect in the Central American countries and in other neighbouring countries, and a draft plan of provisions to be included in a regional agreement on the temporary importation of road vehicles,

Considering that the provisions of this draft plan constitute a satisfactory basis for the establishment of a standard system of minimum facilities for temporary importation applicable to motor vehicles not engaged in commercial traffic, as well as to all road traffic in transit,

Considering that in order that these minimum facilities be accorded to this traffic at the same time and as soon as possible in all the Central American countries it would be advisable to conclude a Regional Agreement on this matter, and

Considering that until a special Agreement is reached with respect to non-regular commercial traffic between the Central American countries, it is advisable to extend the facilities of their agreement to vehicles engaged in such traffic,

/Resolves to

Resolves to recommend to the Central American Government the approval and ratification, as soon as possible, of the draft regional agreement on the temporary importation of road vehicles attached to this resolution.

Appendix

REGIONAL AGREEMENT ON THE TEMPORARY IMPORTATION OF ROAD VEHICLES

The Governments of the Central American Republics, with a view to increasing passenger and commercial traffic through their respective territories and to strengthening the bonds leading toward a greater and more rapid integration of their economies; and

Convinced of the necessity of facilitating as far as possible the movement of vehicles across their borders and through their ports and airports and of standardizing the customs requirements and regulations in this respect,

Have agreed, through their respective duly authorized plenipotentiaries, on the following Central American Agreement on the temporary importation of road vehicles:

Chapter I. General provisions

Article 1. For the purpose of this Agreement, the term "vehicles" indicates all motor vehicles which travel by road and trailers, together with the replacement part and accessories and equipment which normally pertain to them, when these are imported with the vehicle.

Article 2. Each of the Contracting States will admit in temporary exemption, with no financial guarantee for the payment of taxes and import duties, vehicles registered in the territory of any of the other Contracting States, provided that the conditions of this Agreement are fulfilled and provided that the vehicles be introduced temporarily by persons residing in one of the Contracting States. Any Contracting State may exempt from the terms of this provision vehicles introduced into its territory by persons residing there.

Article 3

1. Any motor vehicle introduced into the territory of a Contracting State under the terms of this agreement must be taken out within a period of 30 days, except when the Contracting State shall have granted a longer period of temporary exemption in accordance with its regulations. In any other case, payment of taxes and import duties may be demanded and, if there is cause for it, customs sanctions may be applied, except in the cases referred to in Articles 10 and 12 of this Agreement.

/2. The Contracting

2. The Contracting States may require that vehicles which are temporarily imported be protected by the guarantee of the importer to take the vehicle out of the country within the stipulated time and to fulfill all the other conditions under which the temporary importation is permitted. This guarantee will consist of a Customs Certificate deposited with the customs authorities of the country of temporary importation.

Article 4. This Agreement does not cover the importation of fuel, accessories and replacements which are not a part of the normal equipment of the temporarily imported vehicle.

Chapter II. Provisions Relative to Customs Certificates

Article 5

1. The Customs Certificates referred to in Paragraph 2 of Article 3 shall be made out according to the model which appears in Annex I of this Agreement.

2. The customs authorities of the Contracting States will provide the forms for these certificates free of charge to persons who wish to enter the territories of the other Contracting States and who wish to prepare their documents before reaching the post or office of the country or countries of destination.

3. The customs authorities may authorize competent travel and transport organizations to distribute the printed forms to the persons referred to in the preceding paragraph.

4. Each customs certificate shall be valid for only one country or customs territory and for only one trip.

Article 6. The customs certificate shall be issued in the name of the driver of the vehicle temporarily imported.

Article 7. The spare wheels, tires and inner tubes and other accessories which are not considered to be part of the normal equipment of the vehicle (for example, radios, ordinary or baggage trailer, etc.) shall be declared in the customs certificate and shall be presented when the vehicle departs from the country of temporary importation.

Article 8. The date on the customs certificate, once having been reported to the customs authorities of the country of importation, may be changed only with the permission and under the conditions established by the authorities of each country.

Chapter III. Conditions of temporary importation

Article 9

1. Vehicles admitted under the terms of this Agreement shall leave the country in the same condition (except for normal wear and tear) within the specified time as provided in paragraph 1 of Article 3.

2. If the person who imported the vehicle temporarily shall leave the country without having deposited a sum of money equal to the corresponding taxes and duties or without having posted a bond satisfactory to the customs authorities of the country, the latter customs authorities may consider the period of temporary importation of the vehicle to have expired.

Article 10. The authorities of the country of temporary importation shall not require the departure of vehicles which are seriously damaged as a result of bona-fide accidents. However, the Contracting States reserve the right of refusing to grant this privilege in cases of fraud.

Article 11. Any violation of the provisions of this Agreement, or any substitution, false declaration or device which has the effect of allowing a person to benefit unduly from the present temporary importation procedure shall subject the violator to the sanctions established by the law of the country in which the violation shall have been committed.

Chapter IV. Extension of the validity of admission with temporary exemption

Article 12

1. An extension of the time for re-exporting temporarily imported vehicles shall be granted when the interested parties prove to the satisfaction of the customs authorities that, for reasons beyond their control or for any other reason which is justifiable in the opinion of the customs authorities, they cannot re-export the vehicles within the stipulated time.

2. Requests for extension must be submitted to the competent customs authorities before the expiration of the stipulated period, except when this should be impossible for reasons beyond control or for any other reason which the authorities consider sufficient.

Chapter V. Regularization of customs certificates

Article 13. The countersigning of the exit stubs of the Customs Certificate shall constitute proof of the re-exportation of the vehicle.

Article 14

1. In case of destruction or loss of a customs certificate, the customs authorities of the country of temporary importation shall issue, at the request of the person importing the vehicle, a substitute document.

/2. The customs

2. The customs authorities of the Contracting States will accept as proof of re-exportation the presentation of the duplicate of the exit stub of the customs certificate, which shall be given to the interested party when he takes the vehicle out of the country. In cases of loss or destruction of the duplicate, the customs authorities will accept as authentic proof a certificate based on the model which appears in Annex II of this Agreement, issued by a consular authority of the country of temporary importation.

Article 15. Action to require proof of the re-exportation of a vehicle which has been temporarily imported under the terms of this Agreement may be taken only within one year from the date of expiration of the permit.

Chapter VI. Special conditions of application

Article 16

1. This Agreement shall also be applied to all classes of vehicles engaged in commercial traffic in transit in any of the Contracting States.

2. For the purposes of this Article, it shall be understood that the vehicle is "in transit" with respect to a given country when it crosses that country's territory without transferring, loading or unloading merchandise or passengers on a trip between a point of departure and another point of destination both situated outside the given country.

3. Vehicles engaged in transport between a maritime port or an airport of a country and a point located outside the territory of that country shall also be considered to be in transit.

Article 17

1. Except in regard to the provisions of the preceding Article, this Agreement shall not be applied to vehicles engaged in the regular commercial transport of persons which operate under international concessions, nor to vehicles engaged in the regular traffic of merchandise, which traffic shall be regulated by special conditions, the terms of which the Contracting States shall endeavour to standardize.

2. For the purposes of this Article, the regular commercial traffic of merchandise is understood to mean the transport of merchandise accessible to the public, which is effected between fixed points and according to an established itinerary or according to previously fixed dates.

Article 18. (Provisional). Provisionally and until such time as a special agreement is reached on the matter, the provisions of this Agreement shall be applied to vehicles engaged in passenger and merchandise commercial traffic on a non-regular basis.

Article 19. The provisions of this Agreement shall not limit more liberal practices or agreements which now exist or which may be adopted in the future in the different States.

/Article 20.

Article 20. The authorities of the Contracting States will mutually co-operate toward the effective compliance with the provisions of the present Agreement.

Chapter VII. Final Clauses

Article 21. This Agreement shall be approved and ratified according to the constitutional provisions of each country and will enter into force on the date of the deposit of the respective instruments of ratification.

Article 22. This Agreement shall remain in effect indefinitely but may be denounced by any of the Contracting States by means of notification six months in advance.

The Secretariat of the Organization of Central American States shall be the depository of this document as well as of the instrument of ratification of the Contracting States. That secretariat shall forward to the Central American Governments authenticated copies of this Agreement and will notify them of the deposit of the instruments of ratification.

Provisional article. This Agreement remains open to the Republic of Panama so that this Republic may subscribe to it at any time.

1. TALON DE ENTRADA

Esta talón debe ser separado en el puesto de aduana de entrada y enviado a la autoridad central de Aduanas.

CERTIFICADO DE ADUANAS

Nº _____

Para... (país de validez)

VALIDO hasta

Conductor..... (En ma-Residencia normal..... yúsculas)
o dirección comercial.....
Propietario.....
Residencia normal.....
o dirección comercial.....
Para un VEHICULO AUTOMOTOR de combustión in- (Táchen
terna, eléctrico, de vapor; un REMOLQUE {se las
Tipo (automóvil, autobús, camión, camioneta, pala-
tractor, motocicleta con o sin sidecar, bras no
bicicleta o triciclo con motor auxiliar) (aplic.

MATRICULADO en.....con el Nº.....

Chasis Neumáticos de repuesto
Marca..... Aparato de radio (indf
Nº..... que se la marca)

Motor Otros detalles.....
Marca.....
Nº.....
Número de cilindros.....

Carrocería
Tipo o forma.....
Color.....
Tapizado.....
Nº asientos o carga útil.... Valor estimado
del vehículo.....

Declaro que los datos son verídicos y exactos, que mi residencia normal está situada fuera del país de importación,* que sólo permaneceré temporalmente en este país, que cumpliré todas las disposiciones de los reglamentos aduaneros referentes a la importación temporal de vehículos/remolques y que reexportaré el vehículo/remolques mencionado en el anverso dentro del plazo de validez del presente documento.

....., ade..... de 19..
Firma del interesado

Fecha de entrada Fecha de salida.....
por el puesto de aduana de..... p/puesto aduana de.....
inscrito con el Nº.....
Sello de Aduana Firma del funcionario de aduana

2. TALON DE SALIDA

Esta talón debe ser separado en el puesto de aduana de salida y enviado a la autoridad central de Aduanas.

CERTIFICADO DE ADUANAS

Nº _____

Para... (país de validez)

VALIDO hasta

Conductor..... (En ma-Residencia normal..... yúsculas)
o dirección comercial.....
Propietario.....
Residencia normal.....
o dirección comercial.....
Para un VEHICULO AUTOMOTOR de combustión in- (Táchen
terna, eléctrico, de vapor; un REMOLQUE {se las
Tipo (automóvil, autobús, camión, camioneta, pala-
tractor, motocicleta con o sin sidecar, bras no
bicicleta o triciclo con motor auxiliar) (aplic.

MATRICULADO en.....con el Nº.....

Chasis Neumáticos de repuesto
Marca..... Aparato de radio (indf
Nº..... que se la marca)

Motor Otros detalles.....
Marca.....
Nº.....
Número de cilindros.....

Carrocería
Tipo o forma.....
Color.....
Tapizado.....
Nº asientos o carga útil.... Valor estimado
del vehículo.....

Se admite la importación de este vehículo a condición de que el titular lo reexporte a más tardar en la fecha arriba señalada y de que cumpla las leyes y reglamentos aduaneros sobre la importación temporal de vehículos automotores en el país visitado.

Firma del interesado

Fecha de entrada Fecha de salida.....
p/puesto aduana de..... p/puesto aduana de.....
insr. c/Nº.....
Sello de Aduana Firma del funcionario de aduana

3. TALON DE SALIDA (Duplicado para el interesado)

Este talón debe ser conservado por el interesado una vez que haya sido sellado y firmado por los puestos de aduana de entrada y de salida.

CERTIFICADO DE ADUANAS

Nº _____

Para... (país de validez)

VALIDO hasta

Conductor..... (En ma-Residencia normal..... yúsculas)
o dirección comercial.....
Propietario.....
Residencia normal.....
o dirección comercial.....
Para un VEHICULO AUTOMOTOR de combustión in- (Táchen
terna, eléctrico, de vapor; un REMOLQUE {se las
Tipo (automóvil, autobús, camión, camioneta, pala-
tractor, motocicleta con o sin sidecar, bras no
bicicleta o triciclo con motor auxiliar) (aplic.

MATRICULADO en.....con el Nº.....

Chasis Neumáticos de repuesto
Marca..... Aparato de radio (indf
Nº..... que se la marca)

Motor Otros detalles.....
Marca.....
Nº.....
Número de cilindros.....

Carrocería
Tipo o forma.....
Color.....
Tapizado.....
Nº asientos o carga útil.... Valor estimado
del vehículo.....

Se admite la importación de este vehículo a condición de que el titular lo reexporte a más tardar en la fecha arriba señalada y de que cumpla las leyes y reglamentos aduaneros sobre la importación temporal de vehículos automotores en el país visitado.

Firma del interesado

Fecha de entrada Fecha de salida.....
p/puesto aduana de..... p/puesto aduana de.....
inscr. c/Nº.....
Sello de Aduana Firma del funcionario de aduana

* La residencia normal del interesado puede estar en el país de importación si éste lo permite.

Annex II

MODELO DE CERTIFICADO PARA LA REGULARIZACION DE
LOS CERTIFICADOS DE ADUANAS

(Este certificado debe ser llenado por una autoridad consular del país en que se haya concedido al vehículo automotor la admisión en franquicia temporal.)

.....[Nombre del país].....

La autoridad infrascrita

certifica que hoy,.....de.....de 19.....[fecha completa],

ha sido presentado un vehículo en[lugar y país]

por[Nombre, apellido y dirección]

Se ha comprobado que dicho vehículo respondía a las características siguientes:

Tipo del vehículo (automóvil, autobús, etc.).....

Matriculado en con el N°.....

Chassis { (Marca
 { (Número)

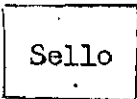
Motor { (Marca
 { (Número
 { (Número de cilindros

Carrocería { (Tipo o forma
 { (Color
 { (Tapizado
 { (Número de asientos o carga útil

Neumático de repuesto

Aparato de radio (indíquese la marca)

Otros detalles



Hecho en

el

Firma(s)

Cargo(s) del (de los) firmante(s)

REGULAR CENTRAL AMERICAN INTERNATIONAL ROAD TRAFFIC SERVICE

Resolution 16 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/44)

The Central American Economic Co-operation Committee,

Considering that the integration of road transport services is indispensable for the promotion of Central American economic integration;

Considering that it is desirable to encourage the establishment among the Central American countries of regular commercial passenger and freight services which are efficient and adequate to the needs of regional transport,

Considering that the protection of the interests of the users of these services as well as the desirability of ensuring insofar as possible the stability of the enterprises rendering these services make it necessary that these services be subject to the system of public concessions, and

Considering that the report on Transport in Central America. Regulation of International Road Traffic (TAA/LAT/3), submitted by the secretariat, contains an analysis of the present procedures in regard to concessions for road transport in the different Central American countries and a study of the possibilities and the problems of modifying these procedures and adapting them to the needs of international transport in Central America,

Recommends to the Central American Governments:

- (a) That, in order to facilitate the establishment of regular services for the commercial transport of passengers and merchandise between their respective capitals, they adopt a system of granting concessions to national enterprises of the respective countries;
- (b) That they endeavour to conclude bilateral and multilateral agreements fixing standard conditions for the regulation of such services;
- (c) That these agreements include provisions for the elimination of double taxation which could result from these concessions, and

/(d) That they

(d) That they grant, in their respective countries, national treatment to enterprises of other Central American countries engaged in international road motor transport services, and

Recognizes that the foregoing recommendations shall not affect the right of each of the Central American Governments to grant broader concessions in regard to such traffic.

LICENCES FOR DRIVERS OF MOTOR VEHICLES

Resolution 17 (CCE), adopted on 26 January 1956

(E/CN.12/CCE/45)

The Central American Economic Co-operation Committee,

Considering that it is necessary to standardize the minimum requirements for the issuance of licences to drive motor vehicles engaged in commercial traffic, for the purpose of obtaining maximum road safety guarantees and also of facilitating inter-Central American recognition of the licences issued in each one of the countries,

Considering that the report on Transport in Central America, Regulation of International Road Traffic (TAA/LAT/3) submitted by the secretariat cites and comments upon the recommendations of the United Nations in regard to minimum requirements for the issuance of driving permits for motor vehicles, and

Considering that these minimum requirements are applicable, with certain qualifications, to the conditions of commercial road traffic in Central America,

Resolves:

1. To recommend to the Central American Governments that they admit as valid within their territories the permits for driving motor vehicles issued by the competent authorities of any other Central American State;
2. To recommend to the Central American Governments that for the issuance of driving permits for motor vehicles engaged in commercial traffic the following minimum requirements be adopted:

- I. MINIMUM AGE: 21 years
- II. PROOF OF DRIVING ABILITY
 - A. MENTAL AND PHYSICAL CONDITION
 - (a) MEDICAL EXAMINATION. Applicants must be examined by a properly qualified doctor or doctors. The examination must include an eye examination and an examination of the applicant's hearing.
 - (b) CAUSES OF DISABILITY. Driving permits shall be denied to persons who suffer from:
 - (i) illnesses which render the driver, permanently or temporarily, unable to control the vehicle, such as epilepsy, paralysis, serious heart condition, etc.
 - (ii) mental disorders
 - (iii) serious infectious diseases
 - (iv) physical defects which impede control of a vehicle (the use of special devices or apparatus or the adaptation of the vehicle are prohibited)
 - (v) alcoholism or drug addiction
 - B. KNOWLEDGE OF TRAFFIC LAWS AND REGULATIONS AND OF THE RULES OF CONDUCT WHICH MUST BE OBSERVED ON THE HIGHWAY
 - C. DRIVING SKILL

The applicant must demonstrate a high degree of driving skill. It shall be required that:

 - (a) applicants have at least two years of previous experience in driving non-commercial motor vehicles, and that
 - (b) applicants undergo a rigorous driving test.
 - D. KNOWLEDGE OF THE MECHANICAL FUNCTIONING OF MOTOR VEHICLES

The drivers of motor vehicles must have an elementary knowledge of automotive mechanics

III. ADMINISTRATIVE CONTROL OF THE ISSUANCE OF LICENCES

A. CENTRAL REGISTRY

- (a) The issuance of driving permits shall be subject to a central control. The registration of licences issued, denied or withdrawn shall be effected in such a way as to facilitate reference to them through a central registry.
- (b) Traffic authorities in the various countries shall facilitate interchange of information relative to driving permits.

B. VALIDITY OF LICENCES

- (a) Bearers of driving licences for commercial vehicles must undergo, at least once every five years, a medical examination for the purpose of determining whether they are still physically and mentally capable of driving. An examination shall take place at least once a year if the bearer of the licence is 60 years old or more.
- (b) The authority charged with the issuance of driving licences shall be authorized to summon the bearer of a driving licence, when considered necessary, to submit to a new medical examination of his physical or mental ability to drive, or to a new test of his driving skill.
- (c) The results of these examinations shall determine the renewal, the limiting of use or of the period of validity of the licence, or the temporary suspension or cancellation of the licence, according to the condition of the bearer.

3. To recommend to the Central American Governments that they adopt a standard form for licences to drive motor vehicles, in accordance with the recommendations to be made in due time by a group of traffic experts to be convened under the terms of resolution 18 (CCE).

REGULATION OF ROAD TRAFFIC

Resolution 18 (CCE), adopted 26 January 1956
(E/CN.12/CCE/46)

Considering that it is necessary to standardize as far as possible the requirements and the regulation of road traffic,

Considering that the United Nations Economic and Social Council, by means of Resolution 298 I (XI), brought to the attention of the governments the advisability of ratifying the Convention on road traffic adopted in Geneva on 19 September 1949, and that this Convention contains an adequate body of provisions on this subject,

Considering that the report on Transport in Central America. Regulation of International Road Traffic (TAA/LAT/3) proposes common measures which would tend to facilitate this traffic and to eliminate unnecessary obstacles, and

Considering that the authorities in each country which are charged with the responsibility of matters relative to road traffic are the most appropriate agencies for coming to an agreement on standard policies in this respect,

Resolves:

1. To recommend that the Central American Governments endeavour to subscribe as soon as possible to the Convention on Road Traffic (Geneva, 1949);

2. That the secretariat shall, as soon as possible, call a meeting of the traffic authorities of the Central American countries for the purpose of agreeing on standard policies on road traffic, taking as a basis the proposals and recommendations contained in the report on Transport in Central America. Regulation of International Road Traffic (TAA/LAT/3), and giving special consideration to the following points:

- (a) A standard system of highway signals,
- (b) Maximum dimensions and weights of vehicles and safety and comfort requirements of vehicles, and
- (c) Standardization of national driving permits.

3. To recommend to the Governments that they strive to incorporate in their respective laws and regulations the conclusions reached by the traffic authorities at such a meeting.

MARITIME TRANSPORT

Resolution 19 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/47)

The Central American Economic Co-operation Committee,

Takes note of the report entitled Transport in Central America. Maritime Transport (TAA/LAT/5), prepared by experts of the United Nations Technical Assistance Administration and submitted by the secretariat under the terms of resolution 21 (AC. 17), and

A

MARITIME LEGISLATION

Considering that there does not exist at present in the Central American Countries a duly codified and modern port and maritime legislation,

Resolves:

1. To recommend to the Central American Governments that they request of the United Nations Technical Assistance Board an expert to prepare a model draft of Central American port and maritime legislation (which is to be standard and modern), taking into consideration the observations previously submitted by the maritime authorities of each country;

2. To recommend that the secretariat, in consultation with the Governments, call a meeting of experts from each country to study this model draft; and

/3. To recommend

3. To recommend to the Governments that they attempt to incorporate in their respective laws the conclusions reached at that meeting;

B

TRAINING OF CREWS

Considering that it is advisable to provide the Central American countries with personnel trained to discharge the duties of maritime navigation,

Resolves:

To request from the United Nations Technical Assistance Board an expert to draw up a study on the organization of a Central American Nautical School for the training of crew personnel, and on the measures which should be adopted to coordinate the efforts that the governments are making individually toward the training of maritime personnel, taking into consideration the existing facilities and experience;

C

INSTALLATIONS, OPERATION, ADMINISTRATION AND IMPROVEMENT OF PORTS

Considering that the modernization and improvement of Central American port installations and services are essential to attaining the future development of foreign trade in the region,

Resolves:

1. To request from the United Nations Technical Assistance Board an expert to draw up a study on the measures which should be adopted to coordinate the efforts of the Central American Governments toward the modernization of their ports and their systems of port administration; the revision of port charges, dues and services; and the simplification, modernization and possible standardization of customs procedures;

2. To recommend to the Governments that they put at the disposal of the secretariat the studies which have already been made on the improvement of Central American ports;

/3. To request

3. To request the secretariat to call a meeting of the competent port authorities of the Central American countries so that they may study the report and make pertinent comments for due consideration by the Committee, and

D

CENTRAL AMERICAN MERCHANT FLEET

Considering that the organization of a Central American merchant fleet is desirable for the purpose of attaining an increased development of regional trade, of safeguarding the international monetary reserves of the five Central American countries and reducing the incidence of freight rates on the prices of products involved in the regional trade,

Resolves to recommend to the Central American Governments that they co-ordinate their efforts toward the formation of a Central American merchant fleet, taking into consideration the existing experience and facilities in the region.

ECONOMIC SURVEY OF THE LIVESTOCK AND DAIRY INDUSTRIES

Resolution 20 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/48)

The Central American Economic Co-operation Committee,

Considering that resolution 14 (CCE) recommends an amplification of the information compiled in the Preliminary Note of the United Nations Food and Agriculture Organization on the economic aspects of the livestock and dairy industries,

Considering the advisability of studying in more detail the experience gained by those countries which have organized cooperative societies for the processing and distribution of milk, as well as those countries which have set up modern slaughterhouses of varying capacities,

/Considering that

Considering that the above-mentioned Preliminary Note suggests the possibility that there might be produced in Central America on an industrial scale products such as containers for milk and cheeses, all of them capable of being produced within the economic integration programme, and all of them of interest to this Committee, and

Considering that in the study submitted by the secretariat entitled Evaluation of the Economic Integration Programme and Some New Industrial Possibilities (E/CN.12/CCE/33) there is likewise indicated the possibility of producing biological drugs for veterinary uses, glass ampoules and containers, along the same lines,

Resolves:

1. To request from the United Nations Technical Assistance Board an expert in the organization of the livestock market to:

- (a) Study the present status of the livestock market and of the market for livestock and dairy products in Central America in regard to production, consumption, costs and prices, within each country, in the area as a whole and in relation to the import and export market;
- (b) Study the conditions under which the trade in and transport of livestock on the hoof is carried out at present in the region and to suggest the measures necessary to achieve a higher return on meat in the markets as well as a better utilization of by-products, with special reference to skins and hides;
- (c) Suggest the most appropriate kind of organization for ensuring an increased availability of milk and the supply of liquid milk to the markets and the drying plants which have already been installed and those which are to be installed;
- (d) Study all effective possibilities which the region offers for an integration of the livestock and dairy market;

2. With a view to obtaining detailed information on the technical and economic operation and the types of slaughterhouse most appropriate to the requirements of the region, to select in three different countries of Central America three slaughterhouses -one large, one medium sized and one small- to serve as models for:

- (a) The adoption of efficient slaughtering techniques to ensure a better supply of meat for the markets;
- (b) The adoption of improved techniques of skinning and preserving of beef and pork hides and of recovering and preserving the by-products of slaughter which could be processed by industrial plants with a view to increasing the quantity and improving the quality of these products in Central American markets;
- (c) The adoption of an efficient system of distributing and selling meat, especially through a chain of distribution of refrigerated meat which would extend from the slaughterhouses to the meat shops, as well as a similar system for processed meat products;
- (d) Recommending the system of ownership or management most adequate for the establishment of slaughterhouses of the three different categories, according to the particular conditions prevailing in each country.

The selection of the three different slaughterhouses shall be made through the consultation of the Chairman of the Committee with the other members. The study of the operation of these slaughterhouses will be in the charge of the respective national authorities, in co-operation with the FAO experts assigned to the respective countries or to the Central American economic integration programme. Such authorities will draw up a report for the consideration of the Committee at its next session in co-operation with the livestock market expert referred to in paragraph 1;

3. To recommend to the Central American countries in which co-operative dairy organizations have already been established that they draw up, for the consideration of the Committee at its next session, a report on the

results obtained by those co-operatives in regard to the collection, processing and distribution of milk, so that a study may be made of the best means of stimulating the production and utilization of milk and milk products in the entire region;

4. If the preparation of the above-mentioned plans and studies requires it, to request from the United Nations Technical Assistance Board two more experts, one in the livestock industry and one in the dairy industry to assist in the work outlined in Points 1, 2 and 3;

5. To recommend to the Central American Governments that they study, in collaboration with the respective technical organizations, the establishment if the necessary economic and technical conditions exist, of one or more cheese factories, for the supply of quality products to the regional market; and that they inform the Committee on the results obtained;

6. To recommend to the Central American Governments that they appoint national experts, whether government officials or representatives of the livestock industry of each country, to co-operate with the experts which are requested from FAO in the study of the problems which exist in their respective fields of activity, with special reference to those problems enumerated in paragraphs 1, 2, 3 and 5;

7. To recommend to the secretariat that, in collaboration with the industrial and agricultural experts of the economic integration programme or those assigned to specific countries and with the Central American Research Institute for Industry, it study the possibilities of producing in the region milk containers, to take the place of the containers which are at present being imported, taking into consideration various technical possibilities and relating this study to the other industrial plans of the integration programme, among them the manufacture of pulp and paper and the possible manufacture of glass containers;

8. For the purpose of supporting the establishment of optimum technical conditions for the breeding of livestock, and provided the Ministers of Agriculture consider it advisable, to recommend to the

secretariat, in collaboration with the industrial and agricultural experts of the integration programme or those assigned to specific countries, and with the Central American Research Institute for Industry, the study of the possibilities of establishing in Central America a factory for the production of veterinary biological products;

9. To recommend to the Governments an improvement in livestock statistics and the constant interchange of such data.

STATISTICAL CO-ORDINATION

Resolution 21 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/49)

The Central American Economic Co-operation Committee,

Considering that the Statistical Co-ordination Sub-Committee, established under the terms of resolution 3 (CCE), has submitted to the consideration of this Committee the report of its First Session (E/CN.12/CCE/36) together with the resolutions adopted at that session,

Resolves:

1. To approve the Report on the First Session of the Statistical Co-ordination Sub-Committee (E/CN.12/CCE/36) and to express the Committee's appreciation to the Sub-Committee, as well as to the secretariat and the other organizations which have co-operated in the work of the Sub-Committee, for their efficient work;

2. To approve the work programme of the Sub-Committee for the period 1955/56; to recommend to the Central American Governments that they give to the General Statistics Bureaux, as well as to the International agencies participating in the programme, the co-operation necessary for a satisfactory fulfilment of that programme; and to recommend to the Sub-Committee the addition to the programme of the following items: the co-ordination of demographic statistics, the standardization of classifications of budgetary revenues and expenditures, and mining statistics;

3. To reiterate to the Central American Governments the advisability of applying, in those countries that have not yet done so, the Standard

Central American Customs Nomenclatures for imports and exports for the purposes of foreign trade statistics;

4. To recommend to the Central American Governments:

- (a) That, with a view to the needs of the integration programme and bearing in mind the obvious general desirability of such a course, they promote the compiling of forestry and mining statistics, and that to this end they carry out inventories of the forest and mining resources of their respective countries insofar as this is possible;
- (b) That, in order further to develop Central American statistics and in order to attain greater co-operation in the field of training;
 - (i) They lend all possible facilities when the services of a statistical expert from one of their countries shall be requested by the General Statistics Bureau of one of the other Central American countries;
 - (ii) They establish the post of Statistician in their civil services with the purpose of attaining a technical improvement in statistical work;
- (c) That they take the necessary steps, in collaboration with the Inter-American Statistical Institute, to ensure that the Central American Course in Statistical Training continues to be offered in one of the Central American countries during 1956;

5. To affirm the desirability of co-ordinating the basic principles of the respective Central American statistics laws as one of the effective ways of co-ordinating statistical work;

6. That the Sub-Committee be governed, in respect to its terms of reference, by Resolution 3 (CCE), which created the Sub-Committee, and, in respect to procedures, by the regulations of the Committee;

7. That in the field of industrial statistics the Sub-Committee give priority, under the terms of resolution 13 (SC.2), to statistics relative to the following Central American industries, at the same time adding any others whose importance may become evident through censuses or through other sources:

- (a) Cotton textiles and textiles made from other fibres
- (b) Metallurgical and metallic products
- (c) Vegetable oils and fats
- (d) Cement
- (e) Paper and cardboard
- (f) Beer and other alcoholic beverages
- (g) Non-alcoholic beverages
- (h) Soap
- (i) Livestock and dairy products
- (j) Food products
- (k) Footwear

CUSTOMS REGULATIONS

Resolution 22 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/50)

The Central American Economic Co-operation Committee,

Considering that the Central American Trade Sub-Committee has submitted a report on its Third Session, together with the resolution adopted (E/CN.12/CCE/37),

Considering that in the draft standard customs code placed before the Sub-Committee reference is made, among other things, to the temporary importation and exportation and transit of road motor vehicles, and

Considering that, on the other hand, this Committee has adopted resolution 15 (CCE), recommending to the Central American Governments the signing of a Regional Agreement on the treatment to be accorded the temporary importation of highway vehicles,

/Resolves:

Resolves:

1. To approve the report of the Third Session of the Central American Trade Sub-Committee (E/CN.12/CCE/37) and to express its appreciation to the secretariat and to the United Nations Technical Assistance Administration for the effective way in which they have carried out the work;

2. To reaffirm the Sub-Committee's request, made in its resolution 12 (SC.1), to the Central American Governments, that they send to the secretariat, not later than 31 March 1956, the comments resulting from a detailed study of the draft customs code and procedures submitted by the secretariat, so that whatever modifications of this draft that be necessary may be taken into consideration;

3. To recommend to the secretariat and to the Trade Sub-Committee that in the preparation of the final draft of the customs code and procedures they bring all matters relative to customs procedure on the minimum requirements for the temporary importation of road vehicles into harmony with the draft adopted by the Committee in this respect under the terms of resolution 15 (CCE).

INTER-CENTRAL AMERICAN FREE TRADE

Resolution 23 (CCE) adopted on 26 January 1956
(E/CN.12/CCE/51)

The Central American Economic Co-operation Committee,

Considering that the creation of a Central American free trade zone is essential to the achievement of the ends of economic integration,

Resolves:

1. To establish an Ad Hoc Committee to draw up a draft multilateral treaty on inter-Central American free trade and economic integration, to serve as a basis for the future development of free commercial interchange throughout the region.

/2. The Committee,

2. The Committee, which will assume the duties delegated in this respect to the Central American Trade Sub-Committee in resolution 11 (CCE) of 9 May 1955, shall take into consideration the following points in the preparation of the draft:

- (a) The establishment of a zone of free trade limited to a list of commodities not subject to customs duties or to any restriction or control;
- (b) The equalization - for the products included in the list mentioned in point (a) above or those which are subsequently added to it as becomes necessary and possible of the duties applied to their importation and to the importation of raw materials pertaining to their manufacture;
- (c) The treaty shall remain in effect for 10 years;
- (d) The treaty shall set up a Central American Trade Commission which shall be charged with proposing solutions to the problems which may arise from the application of the treaty and studying the problems relative to the development of Inter-Central American trade. This commission shall also periodically recommend to the Central American Governments the commodities which it believes should be added to the free trade list, after a study of the implications of such additions;
- (e) Provisions on the following points shall be incorporated in the draft treaty:
 - (i) Measures for the prevention of unfair trade practices;
 - (ii) Regulations for the guarantee of the free movement of merchandise in transit through the territories of Central American countries;
 - (iii) The according of national treatment to merchandise subject to free trade;
 - (iv) The according of national treatment to Central American capital investments;
 - (v) The according of national treatment to the inter-Central

American transit of vehicles and to Central American transport services;

- (vi) The according of national treatment to the citizens of Central American countries in commercial, civil and social affairs;
- (vii) The protection and promotion of regional industries;
- (viii) The application of the most-favored-nation clause to all inter-Central American trade in commodities not included in the free exchange list, with the exception of concessions granted through Central American bilateral free trade treaties;
- (ix) The clauses of this agreement which amplify provisions made in the bilateral treaties shall prevail over the latter, and
- (x) The Central American governments shall be committed to include the Central American clause of exception in all trade treaties which they enter into with non-Central American countries;

3. To delegate also to this Ad Hoc Committee the selection of the commodities which should appear on the free exchange list, having regard to the studies already carried out by the secretariat in this connexion. In drawing up this list, principal consideration should be given to:

- (a) Commodities which pertain to regional industries contemplated within the integration programme;
- (b) Commodities which pertain to industries capable of being established for the supply of the Central American market, as a whole; and
- (c) Commodities now being produced in Central America the trade of which might be increased without adversely affecting the national economies;

4. To request the secretariat to give this Committee all the co-operation necessary for carrying out its task;

/5. That the

5. That the Ad Hoc Committee shall meet during the second half of March 1956 at a place to be agreed upon a consultation among the members of this Committee;

6. That the draft treaty, once it has been drawn up by the Ad Hoc Committee, shall be transmitted to the Chairman of the Economic Co-operation Committee, and copies thereof be sent to the Central American Governments for their respective consideration.

EQUALIZATION OF CUSTOMS TARIFFS

Resolution 24 (CCE), adopted on 26 January 1956
(E/CN.12/CCE/52)

The Central American Economic Co-operation Committee,

Considering that the adoption of uniform customs tariffs in the Central American countries is a necessary condition for the integration of their economies, and

Considering that all the countries have adopted, or are in the process of adopting, the Standard Central American Customs Nomenclature (SCACN), which constitutes a step toward the union of their customs,

Resolves to request the Central American Trade Sub-Committee, with the collaboration and help of the secretariat and of other United Nations agencies, to draw up a draft plan which could serve as a basis for the equalization of Central American Customs tariffs, as a first step toward the formation of a customs union.

ELECTRIFICATION IN CENTRAL AMERICA

Resolution 25 (CCE), adopted on 27 January 1956
(E/CN.12/CCE/53)

The Central American Economic Co-operation Committee,

Considering that the development of electrification in each of the Central American countries has reached a stage of positive action in which it is highly desirable that its different aspects and experiences should be known by the other countries for the purpose of co-ordinating efforts

/and giving

and giving mutual aid to each other in their common problems,

Resolves:

1. To take note of the Preliminary Report on Electrification in Central America, prepared by experts of the United Nations Technical Assistance Administration (ST/TAA/J/Central America R.1), and of the Secretariat Note on this report (E/CN.12/CCE/5);

2. To accept the suggestion of the Costa Rican delegation to hold in San José, Costa Rica, under the auspices of the Committee, a Meeting of Central American Electric Power Officials and to establish a Documentation and information Centre to serve the interests of the five countries;

The Meeting of Electric Power Officials shall have as its object:

- (a) The establishing of contacts among the officials and experts of the five countries in order that they may study and analyse their common problems and exchange information about their respective experiences;
- (b) The examination and analysis of the present situation in each country and of the development plans in their different technical, legal, economic and administrative aspects;
- (c) The discussion with international experts of the fundamental aspects of the electric power industry with a view to seeking the standardization of procedures and a better integration of the technical-financial, administrative, rate, and legislative aspects and of technical standards and specifications;
- (d) The drawing up of recommendations regarding possible technical assistance needs.

International experts and experts of the ECLA secretariat, the Central American Research Institute for Industry, and other international agencies, as well as experts from Mexico and Puerto Rico, whose electrical development is of interest in the consideration of the problems and needs of Central America, should be invited to participate in the meeting.

REGIONAL INDUSTRIES BILL

Resolution 26 (CCE) adopted on 27 January 1956
(E/CN.12/CCE/54)

The Central American Economic Co-operation Committee,

Considering that the existence of a standard act granting certain privileges and inducements to industries of a regional nature is basic to Central American economic integration,

Resolves:

1. To request the secretariat to prepare a standard bill establishing a definition of regional integration industries, the fiscal privileges which are to be granted to these industries and any other inducement which might contribute to the success and development of such industries; and
2. That, when this bill has been completed, it shall be submitted to a group of experts from the five Central American countries, who shall make pertinent recommendations to the Committee.

EVALUATION OF THE CENTRAL AMERICAN ECONOMIC INTEGRATION PROGRAMME

Resolution 27 (CCE), adopted on 27 January 1956
(E/CN.12/CCE/55)

The Central American Economic Co-operation Committee,

Considering that, under the terms of resolution 8 (CCE), the secretariat has submitted a study on the evaluation of the Central American Economic Integration Programme and Some New Industrial Possibilities (E/CN.12/CCE/33),

Considering that this study is of considerable importance for a knowledge of the present state of the programme and for orientation on the development of the programme, and that it is desirable to make it available to public and private institutions and firms which could co-operate in Central American integration, and to encourage these institutions to participate more fully,

/Considering that

Considering that it is indispensable to determine the effect which the demographic problems of Central America may have upon the economies of the region and upon the development of the programme,

Considering that in the economic integration programme and in the specific development projects of the Central American economies it is necessary to ensure a fair balance between the progress of agricultural activities and the development of industry,

Considering that the above study examines the possibility of establishing, in line with the Central American economic integration programme, several other industries in addition to those enumerated in resolution 2 (AC.17), adopted at the first session of the Committee in 1952,

Resolves:

1. To take note with satisfaction of the study on Evaluation of the Central American Economic Integration Programme and Some New Industrial Possibilities, prepared by the secretariat, and to congratulate and thank the secretariat for this valuable study;

2. To recommend to the secretariat:

- (a) That the report on the Evaluation of the Central American Economic Integration Programme be published together with the resolutions and reports of the meetings held,
- (b) That the secretariat also prepare a pamphlet for general distribution among the public and private institutions and firms which might be interested in the development of the programme;

3. To recommend to the Governments that, in order to bring about a broader appreciation of the objectives and the means of the programme on the part of private enterprise and on the part of the development agencies of each of the Central American countries, they include representatives of these interests in their delegations to future sessions of the Committee;

/4. To request

4. To request the secretariat to submit, at each ordinary session of the Committee, an evaluation study of the Central American Economic Integration Programme, which shall include a report on the status of the projects currently in progress and at the same time propose, if possible, new measures for the progressive attainment of integration;

5. To recommend to the secretariat that, in relation to the subsequent evaluation studies of the Programme, it carry out a detailed study of the demographic problems of Central America and their effect on the economic development of the region and, in particular, of the relation between population growth and the problems of Central American economic integration;

6. With a view to maintaining the necessary balance between agricultural and industrial development within the Central American economic integration programme, to consider at the next session the outlines of an organic programme for the development of agricultural and livestock production, forestry and fisheries products and for an improvement in the marketing systems for agricultural products;

7. To declare of interest to Central American economic integration the development of the following industries, viewing the Central American market as a whole: petroleum products; fertilizers, insecticides and fungicides; veterinary and biological products and ampoules; tires and inner tubes; paints, varnishes and ink; ceramics; glass, metal and plastic containers; pulp and paper; fisheries products; welded tubing and absorbent cotton. Private enterprise should participate actively in the promotion of these activities, and the necessary steps should be taken to obtain the collaboration of the United Nations Technical Assistance agencies, when this is necessary, as well as the co-operation of the Central American Research Institute for Industry and of other useful sources of consultation for the carrying out of these basic studies.

CENTRAL AMERICAN INDUSTRIAL INITIATIVES COMMISSION

Resolution 28 (CCE), adopted on 27 January 1956
(E/CN.12/CCE/56)

The Central American Economic Co-operation Committee,

Considering that the report on the Evaluation of the Central American Economic Integration Programme and Some New Industrial Possibilities (E/CN.12/CCE/33) includes preliminary studies on the possibility of establishing, on the basis of the Central American market as a whole, certain industries which might possibly be more economical and beneficial for the region than if they were created with a view to more limited national markets,

Considering that, without prejudice to the studies which may be carried out in collaboration with the United Nations agencies and other international agencies, it is advisable and necessary increasingly to stimulate private industrial initiative as well as contact between the various parties interested in Central American industrial development for the purpose of increasing the possibility of carrying out the plans for new industries and for the expansion of existing industries, and for the purpose of achieving a greater correlation and interrelation among different sectors of industry,

Resolves:

1. To establish a Central American Industrial Initiatives Commission composed of two representatives designated by each Central American Government of which at least one should be a representative of private enterprise, for the purpose of:

- (a) Exchanging information on industrial initiatives, projects and activities in Central America with a view to promoting a more adequate development of industry and to widening the market possibilities in Central America as a whole, bearing specially in mind the interrelation and correlation between different types of industries;

/(b) To study

- (b) To study practical ways of advancing the technical and economic studies which may be needed and of initiating the best methods for carrying out the industrial proposals and projects, and to suggest to the Governments, the development agencies and private enterprise measures which might facilitate these ends;
- (c) To advise the Central American Economic Co-operation Committee on problems of integration in the industrial field;

2. The Commission shall meet at least twice a year in different Central American capitals and will submit to the Committee reports on the results of the discussions;

3. In addition to the secretariat, the Central American Research Institute for Industry and the technical assistance experts whose work is related to the Central American economic integration programme, according to their terms of reference and work procedures shall lend their collaboration and advice to the Commission;

4. To recommend that the Commission consider all the industrial studies which have been or which are being examined by the Central American Economic Co-operation Committee.

ADVANCED SCHOOL OF PUBLIC ADMINISTRATION FOR CENTRAL AMERICA

Resolution 29 (CCE), adopted on 28 January 1956
(E/CN.12/CCE/57)

The Central American Economic Co-operation Committee,

Considering that the Director of the Advanced School of Public Administration for Central America has submitted to the consideration of this Committee a report on the activities carried out by the School during 1955 (E/CN.12/CCE/40 and ESAPAC/382/D.I. 52),

Considering that the work of the Director, in the organization and establishment of the School as well as in its subsequent development, and the co-operation of the School's staff, are commendable and praiseworthy,

/Resolves:

Resolves:

1. To take note with satisfaction of the annual report submitted by the Director of the Advanced School of Public Administration for Central America; and
2. To register a vote of thanks for their valuable and commendable work to the staff of the School and, especially, to the retiring Director of the School, Dr. Enrique Tejera Paris.

TECHNICAL ASSISTANCE

Resolution 30 (CCE), adopted on 28 January 1956
(E/CN.12/CCE/58)

The Central American Economic Co-operation Committee,

Considering that the Regional Representative of the United Nations Technical Assistance Board has submitted a report on the Technical Assistance Activities of the Central American Economic Integration Programme (E/CN.12/CCE/34),

Taking into consideration that the respective requests for technical assistance for 1956 submitted by this Committee were approved and are being acted upon,

Considering that in view of the resolutions adopted at the present session, it is necessary to change the order of priority with certain technical assistance problems; and

Considering that the requests for technical assistance for 1957 must be submitted to the Technical Assistance Board not later than 15 July 1956,

Resolves:

1. To note with satisfaction the report of the Regional Representative of the United Nations Technical Assistance Board;
2. To authorize the Chairman of the Committee to transmit to the Chairman of the United Nations Technical Assistance Board the resolutions

/adopted at

adopted at the present session and to request the Board to grant high priority to the requests formulated in the resolutions cited and endeavour to fulfil in the 1956 programme the greatest possible number of the new requests, postponing to this end, if it be necessary, the following previously submitted requests: an expert in vegetable oils and fats requested from UNTAA, and an expert on the same subject requested from FAO, as well as an expert in electric energy requested from UNTAA;

3. To authorize the Chairman of the Committee, in consultation with the other members, to submit to the United Nations Technical Assistance Board as soon as convenient a draft programme of technical assistance for 1957, subject to ratification by the Committee at its next session.

ADVANCED TRAINING IN INDUSTRIAL ENGINEERING

Resolution 31 (CCE), adopted on 28 January 1956 (E/CN.12/CCE/59)

The Central American Economic Co-operation Committee,

Considering that the report on the Organization of a Central American Research Institute for Industry (ST/TAA/J/Central America/R.2), which was brought to the attention of the Committee at its Extraordinary Session in San Salvador from 4-9 May 1955, includes in its Annex D a "Memorandum on the need for Developing Technical University Education in Central America" and recommendations on the advisability of making a study to determine ways to improve present conditions of technical and scientific education in Central America,

Considering that under the terms of resolution 6 (CCE), adopted on 7 May 1955, it was agreed to create the Central American Research Institute for Industry, which is now in operation, and that the formation of an Advanced School of Industrial Engineering and Administration would be a complement to the functions of this Institute,

/Considering that

Considering that the general trends in economic development require an increasingly large number of persons with the technical qualifications indispensable for an effective implementation of the specific programmes and projects on which the Governments and private firms of the Central American countries are engaged, with a view to an acceleration of Central American economic integration and development,

Considering that in spite of the individual efforts which the Central American countries have been making toward improving the necessary conditions and facilities for professional training in the various fields of modern technology and science, reality demonstrates that academic possibilities and practices are still at a minimum and that their influence in industrial development is insufficient,

Considering that the work of organizations like the Central American Research Institute for Industry will help to stimulate the general process of industrialization and that the effects of scientific research and technical consultation will not become a practical reality until there is a sufficient number of qualified engineers who are capable of taking charge of local industrial projects or of projects of Central American integration availing themselves of the technical information of the Institute,

Resolves to recommend to the Central American Governments that, in the plans for co-operation which are carried out in the field of education, they study, as soon as possible, in collaboration with the United Nations Educational, Scientific and Cultural Organization, the organization of a Central American Advanced School of Industrial Engineering and Management for the training of specialized technical personnel.

CENTRAL AMERICAN RESEARCH INSTITUTE FOR INDUSTRY

Resolution 32 (CCE), adopted on 28 January 1956
(E/CN.12/CCE/60)

The Central American Economic Co-operation Committee,

Considering that the Central American Research Institute for Industry has been duly created, under the terms of resolution 6 (CCE) and by means

/of an agreement

of an agreement subscribed to by the Governments of Costa Rica El Salvador, Guatemala, Honduras Nicaragua, and has now begun operations in Guatemala City, and

Considering that the Director of the Institute has submitted a first report of activities (E/CN.12/CCE/41),

Resolves:

1. To take note with satisfaction of the report of the Director of the Central American Research Institute for Industry.

2. To express warm gratitude to the Government of Guatemala for the facilities and co-operation which it has given for the establishment of the Institute.

PLACE AND DATE OF NEXT MEETING

Resolution 33 (CCE), adopted on 29 January 1956
(E/CN.12/CCE/61)

The Central American Economic Co-operation Committee,

Resolves to accept the offer of the Republic of Guatemala to hold the fourth ordinary session of this Committee in that country in January 1957.

VOPE OF THANKS TO THE GOVERNMENT AND AUTHORITIES OF
NICARAGUA

Resolution 34 (CCE), adopted on 29 January 1956
(E/CN.12/CCE/62)

The Central American Economic Co-operation Committee,

Resolves to express to the Government and authorities of Nicaragua its deep appreciation for the generous hospitality extended to the delegations, to the secretariat, to the representatives of the specialized agencies and to the observers and to manifest its satisfaction at the efficient measures that they took to assure the successful functioning of the session.

/VOPE OF THANKS

VOTE OF THANKS TO THE CHAIRMAN AND TO THE SECRETARIAT

Resolution 35 (CCE), adopted on 29 January 1956
(E/CN.12/CCE/63)

The Central American Economic Co-operation Committee,

Resolves to express its deep appreciation and acknowledgement:

- (a) To the Chairman of the third session, Dr. Enrique Delgado, Minister of Economy of Nicaragua, for the able manner in which he has presided over the proceedings of the session, thus contributing to the successful completion of its work, and
- (b) To the representative of the Executive Secretary of the Economic Commission for Latin America, and to the other members of the secretariat, for organizing the conference and for the reports which gave the Committee a firm basis for its deliberations.

VOTE OF THANKS TO THE REPRESENTATIVES OF THE ORGANIZATION
OF CENTRAL AMERICAN STATES, THE REPUBLIC OF PANAMA, THE
UNITED NATIONS, THE SPECIALIZED AGENCIES AND THE OTHER
ORGANIZATIONS OF THE INTER-AMERICAN SYSTEM

Resolution 36 (CCE), adopted on 29 January 1956
(E/CN.12/CCE/65)

The Central American Economic Co-operation Committee,

Resolves to express its appreciation:

- (a) To the representatives of the Organization of Central American States, for their attendance, their interest and the co-operation which they offered during the course of the Session;
- (b) To the representatives of the United Nations Technical Assistance Board and Technical Assistance Administration and of the United Nations Food and Agriculture Organization, for the reports which they submitted to the session, as well as to the representatives of the United Nations Educational, Scientific and Cultural

/Organization, the

Organization, the International Bank for Reconstruction and Development and the International Monetary Fund for the interest which they manifested in the work of the Committee;

- (c) To the representative of the Republic of Panama for having honored the Committee with his presence as an observer, and
- (d) To the observers of the Inter-American Economic and Social Council and of the Inter-American Statistical Institute for their attendance at the meetings and their participation in the discussions.

III

RESOLUTIONS OF THE ECONOMIC COMMISSION FOR LATIN AMERICA
AND ITS COMMITTEE OF THE WHOLE
ECONOMIC INTEGRATION OF CENTRAL AMERICA

Resolution 50 (V), adopted on 25 April 1953
(E/CN.12/335)

The Economic Commission for Latin America,

Considering:

(a) That in pursuance of resolution 9 (IV) on Economic Development of Central America, the Governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua have set up a Committee for Economic Co-operation composed of their economic ministers, for the purpose of carrying out a programme of gradual and progressive integration of their economies based on principles of co-operation and reciprocity,

(b) That the Executive Secretary has presented a report on the studies and work carried out to date in connexion with that programme (E/CN.12/296, 296/Add.1, 296/Add.2 and 297),

Takes note with satisfaction:

(a) Of the setting up of the Committee for Economic Co-operation of the Economic Ministers of the Central American Isthmus, the first meeting of which was held successfully in Tegucigalpa, Honduras, in August 1952, as well as of the report on the subject submitted by that Committee (E/CN.12/AC.17/24);

(b) Of the preliminary studies carried out by the Executive Secretary which served as a basis for the resolutions adopted by the Committee for Economic Co-operation at its first meeting;

(c) Of the approval which the United Nations Technical Assistance Board has given to an initial group of technical assistance projects for Central American economic integration, which form part of the programme drawn up by the respective governments based on the work carried out jointly by the Executive Secretary, the Technical Assistance Administration, the Food and Agriculture Organization, the International Labour Organisation,

/and the United

and the United Nations Educational Scientific and Cultural Organization;

(d) That the United Nations Technical Assistance Board has appointed a Resident Representative to the Governments of the Central American Republics who will co-ordinate technical assistance activities in those Republics, especially those relating to the economic integration programme;

(e) That the Committee for Economic Co-operation set up a sub-committee to prepare a draft uniform customs nomenclature for Central America and that this sub-committee has concluded its work;

(f) That in relation to the studies for the Central American economic integration programme, a joint mission of the Technical Assistance Administration and the secretariat, with the collaboration of the International Civil Aviation Organization, has been preparing a report on transportation in Central America which will be discussed at a seminar to be held in the near future in San José, Costa Rica;

Resolves:

1. To express its satisfaction with the way in which the Committee for Economic Co-operation of the economic ministers of the Central American Isthmus is implementing resolution 9 (IV) of the Commission;

2. To recommend to the secretariat that it continues to carry out the studies and work necessary for the Central American economic integration programme;

3. To recommend to the Technical Assistance Administration and the specialized agencies of United Nations that, in co-ordination with the Committee for Economic Co-operation, they continue to give due attention to projects relating to the Central American economic integration programme.

ECONOMIC INTEGRATION OF CENTRAL AMERICA

Resolution 73 (AC.24), adopted 9 February 1954
(E/CN.12/AC.24/10)

The Committee of the Whole of the Economic Commission for Latin America,

Considering:

(a) That the secretariat has submitted for the consideration of the Committee of the Whole the annual report of the Committee on Economic Co-operation in Central America which covers the work carried out from 28 August 1952 to 16 October 1953, and which was approved at the second session of the Committee in San José, Costa Rica,

(b) That in the above report notice is given of the decision of the San José meeting to call this body the "Committee on Economic Co-operation in Central America"* instead of the "Committee for Economic Co-operation of the Ministers of Economy of Central America" with a view to expanding its memberships and functions,

(c) That in the same report notice is given of certain modifications in the rules approved by the Committee,

Takes note:

(a) Of the report submitted by the Committee on Economic Co-operation in Central America (E/CN.12/AC.24/5);

(b) Of the technical assistance which the United Nations, FAO, ILO, UNESCO and ICAO have been rendering to the programme of economic integration in Central America;

(c) Of the Committee's change of name and the modification of the rules, and

Resolves:

1. To express satisfaction with the manner in which the Committee on Economic Co-operation in Central America is carrying out its work;

2. To recommend the secretariat to continue the implementation of the studies and tasks necessary for the programme of economic integration in Central America;

* Editorial note: Later modified to "Central American Economic Co-operation Committee."

3. To recommend that Technical Assistance Administration and the specialized agencies of the United Nations should continue, in co-ordination with the Committee on Economic Co-operation in Central America, to devote due attention to the projects connected with the programme of economic integration in Central America.

ECONOMIC INTEGRATION OF CENTRAL AMERICA

Resolution 84 (VI), adopted on 15 September 1955
(E/CN.12/393)

The Economic Commission for Latin America,

Taking into consideration that, in compliance with Resolution 9 (IV), the Central American Economic Co-operation Committee has submitted a report on its activities carried out between its second session held at San José, Costa Rica, in October 1953, and the extraordinary session, held at San Salvador, El Salvador, in May 1955, including the resolution approved at the latter,

Bearing in mind that the programme for the progressive and gradual economic integration of Central America has enjoyed the continued support of the Expanded Programme of Technical Assistance of the United Nations, furnished in accordance with the requests submitted to the Technical Assistance Board by the Governments of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, and

Recognizing that the implementation of this programme is helping to co-ordinate the economic development of Central America, to enlarge the regional market and to strengthen the bases for an increase in income and a rise in the standard of living,

1. Takes note with satisfaction:

(a) Of the report submitted by the Central American Economic Co-operation Committee (E/CN.12/366), and congratulates the Committee and the Governments represented on it on the practical and constructive manner in which its studies have been carried out, embodying a happy combination

/of the efforts

of the efforts of a group of Latin American Governments and the technical resources of the United Nations secretariat and of the other international organizations collaborating in this work, which has given concrete expression to the aspirations of the countries in question and the aims of the international organizations;

(b) Of the support given to the work of this Committee through the Expanded Programme of Technical Assistance and especially by the Technical Assistance Administration, the Food and Agriculture Organization of the United Nations, the International Labour Organisation and the United Nations Educational, Scientific and Cultural Organization, as well as of the collaboration of agencies of the Organization of American States;

2. Reaffirms its desire that the Central American Economic Co-operation Committee should pursue its endeavours to facilitate the economic integration of Central America; and

3. Recommends to the secretariat that it continue to carry out the studies and tasks required by this programme.

ECONOMIC INTEGRATION OF CENTRAL AMERICA

Resolution 111 (AC.34), adopted on 14 May 1956

The Committee of the Whole of the Economic Commission for Latin America,

Considering that, in compliance with Resolution 9 (IV), the Central American Economic Co-operation Committee has submitted a report on its activities carried out between its extraordinary session held at San Salvador, El Salvador, in May 1955, and the third session, held at Managua, Nicaragua from 23 to 29 January 1956, including the resolutions approved at the latter,

Takes note with satisfaction:

1. Of the report submitted by the Central American Economic Co-operation Committee (E/CN.12/AC.34/5), and congratulates the Committee and the Governments concerned on the practical and constructive manner in which the work has been carried out;

2. Of the support given to the work of the Committee through the Expanded Programme of Technical Assistance and especially by the Technical Assistance Administration, the Food and Agriculture Organization of the United Nations, the International Labour Organisation and the United Nations Educational, Scientific and Cultural Organization, as well as of the collaboration of agencies of the Organization of American States,

Recognizing that the secretariat, through the happy combination of its efforts with those of the Governments and other international agencies, has succeeded in bringing this programme to the stage of practical achievement,

Reaffirms its desire that the Central American Economic Co-operation Committee should pursue its endeavours to facilitate the economic integration of Central America, and

Recommends the secretariat to continue its work and to carry out the studies that it considers necessary for the successful fulfilment of the programme.