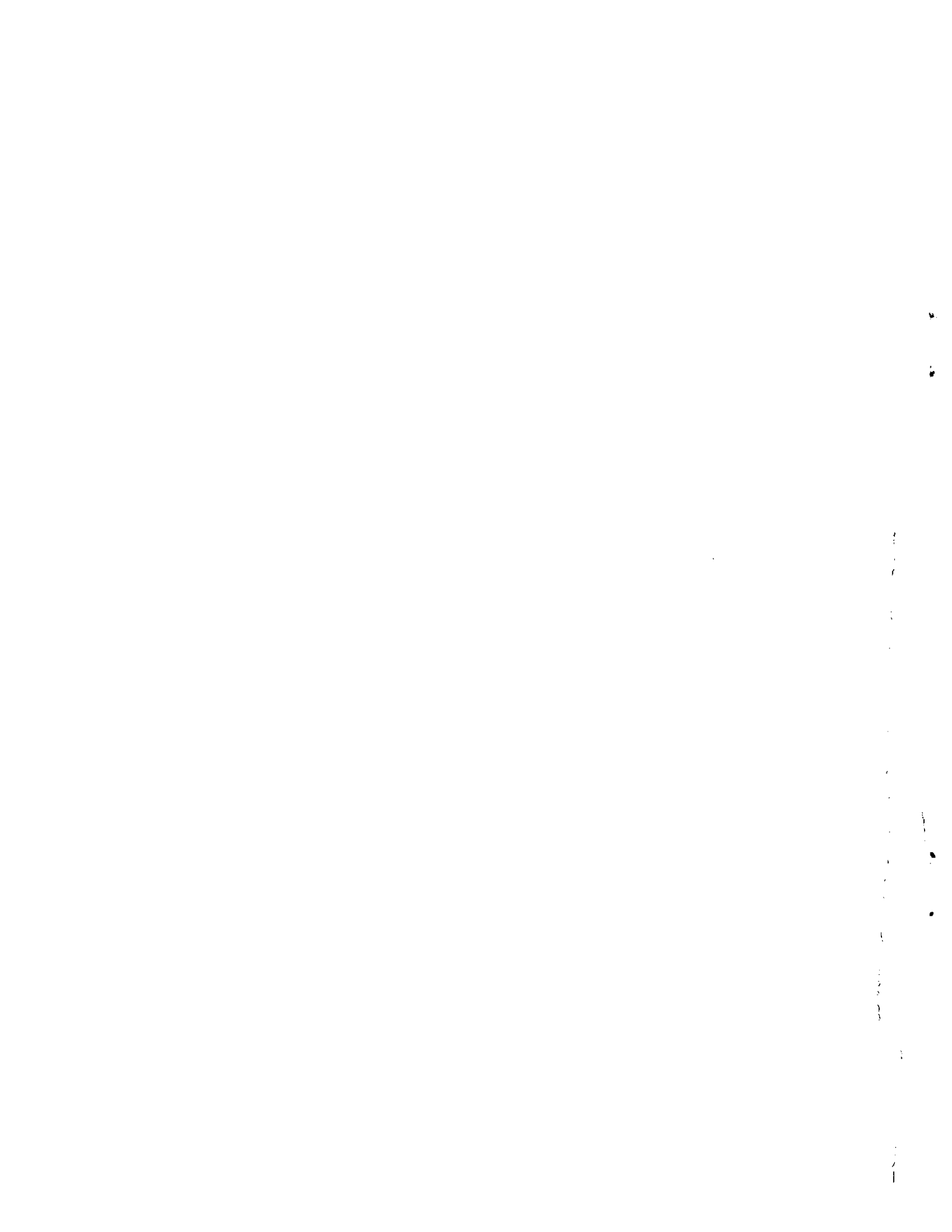


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SITUATION AND EVOLUTION OF FOOD AND
AGRICULTURE IN LATIN AMERICA

Joint ECLA/FAO Agricultural Division
February 1976





COMISION ECONOMICA
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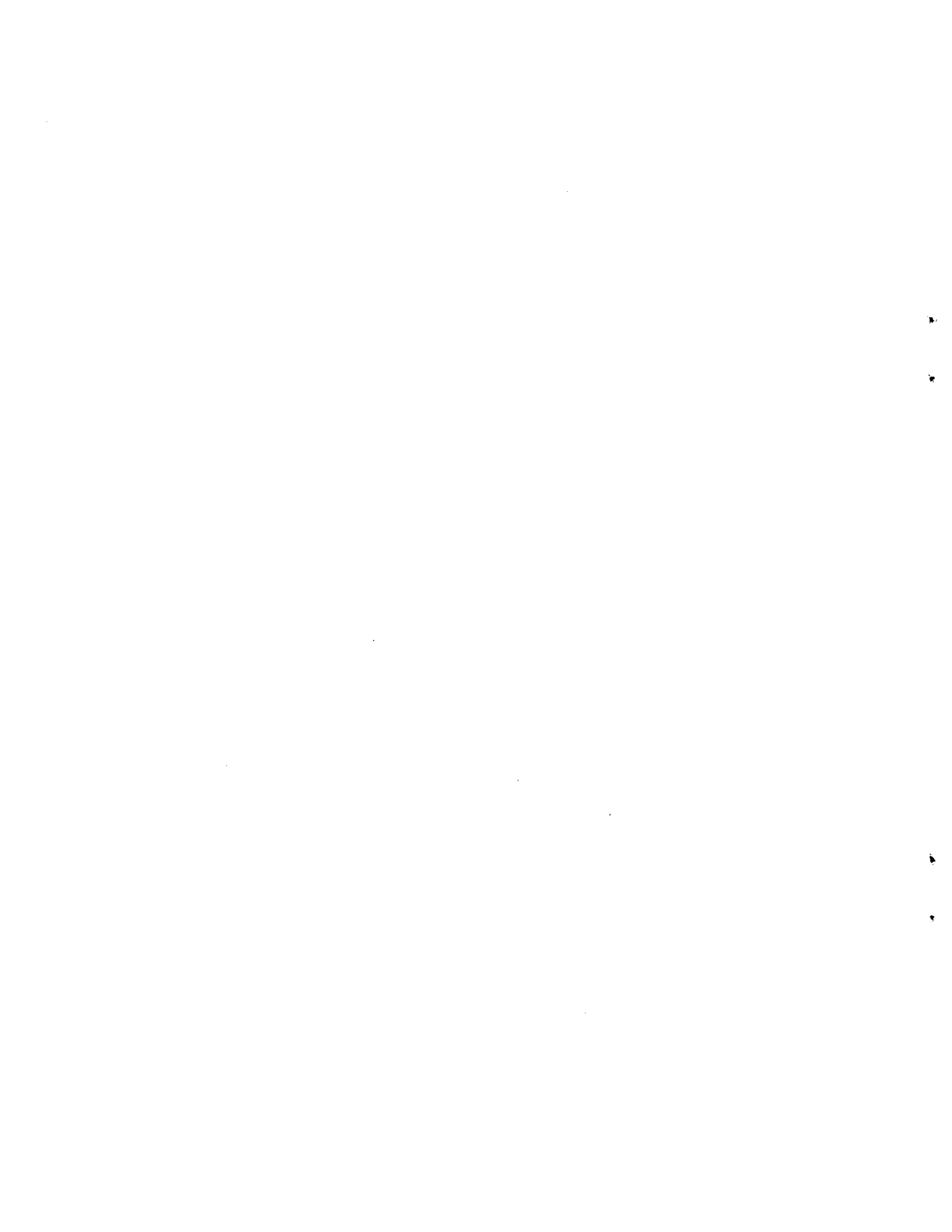
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IN LATIN AMERICA

Document prepared by
The Joint ECLA/FAO Agricultural Division



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INTRODUCTION

I. Analytical orientation and contents of this document

This document deals with only some aspects of recent developments in agriculture and food in the countries which form our region. The aim has been to provide an overall interpretation of recent agricultural development in Latin America, despite the fact that the necessary data and resources for a more thorough analysis were lacking or inadequate. Some factors have nonetheless been thrown into relief and help to explain the performance of the production process and how it has been reacting to the stimulus of attractive, but changing and uncertain, external markets.

It would be impossible to analyse Latin American agriculture without taking into account the most important features of the present world agricultural and food situation. Since 1972 there have been changes, sometimes of a drastic nature, in the international scene, both in markets and prices of agricultural primary products and in the supply and prices of inputs for agriculture. These changes have influenced and conditioned, favourably or adversely, the performance of the agricultural sectors of the developed countries as well as of the developing countries, since their effects have been felt by all.

The period running from the end of 1972 to the end of 1974 was characterized by attractive markets and more or less pronounced rises in world prices, which occurred simultaneously and affected a wide range of agricultural products corresponding approximately to 60 per cent of the physical volume produced in 1974 by Latin America. This study of the performance of national agricultural sectors is centred on that relatively short period, and its approach is such as to contrast the results obtained by the countries of the region, in the light of the very frequent assertion that the restrictions imposed by demand and the lack of price incentives are one of the main causes of the sluggishness of agricultural production.

While it is true that there are a number of countries in the region whose agricultural sectors remain backward, Latin America as a whole has traditionally been considered a region with a high agricultural potential, and great possibilities of contributing to the supply of other regions with its agricultural products; a region which has incorporated significant technological innovations into its productive process and has a high degree of modernization in a large number of its productive enterprises; which possesses an infrastructure which enables it relatively easily to tie in production with markets; and a region whose agroindustrial growth transforms and enhances a significant part of its basic agricultural production.

The countries of the region devote almost a fifth of the volume they produce to world agricultural trade. To do so they have the basic infrastructure for export trade and, in a number of products, extensive commercial experience. All this should have helped them to detect and take advantage of the incentives generated by the expansion of world demand and the rise in international prices. In the case of the countries which are net importers of food - or of agricultural products in general - the adverse effect on their trade balances might have led them to stimulate more vigorously the growth of domestic production and supply. It is therefore interesting to discover how a region with these features has reacted to an exceptional opportunity when external market restrictions appeared to have been eased.



However, while the above features and considerations could have led to a dynamic performance by agricultural production in the region in recent years, it should also be recalled, that in the same period there were other factors moderating the temporary price boom. It should not be forgotten that the rise in the prices of some products was relatively brief, and in a number of cases did not even last longer than one agricultural year before beginning to drop.

At the same time as the rise in agricultural prices there was a widespread rise in production costs. The higher prices of energy and petroleum by-products, the exaggerated rises in fertilizer prices and the general increase in prices of manufactures, including agricultural machinery and equipment, have conditioned the recent performance of world and Latin American agriculture. The transience of the stimulus of high prices of a number of products contrasted sharply with the permanent, and even subsequent and sustained, rise in various agricultural inputs and of production costs.

The approach adopted in this document might be questioned on the grounds that it is impossible to establish a priori and in the short term a very close relationship between the changes which have occurred in world markets and the performance of agricultural production in the region, since they have occurred at different times and in different settings and have complex interrelationships, whose effects cannot be so easily carried over from the trade to the strictly productive level. However, it was thought that this document could validly adopt such an approach of contrasting the two phenomena, on the grounds that while the changes that took place in the external markets may not have been altogether absolute determinants, they must have had a great influence on national agricultural sectors in recent years, even though often high prices and rising demand at the world level do not signify that there are easily penetrable markets, and there are frequently structural rigidities which are favourable to the agricultural sectors of the developed countries.

This document has four chapters. The first places agricultural activity in the context of global development and of the Latin American economic situation, with particular emphasis on foreign trade in agricultural products and its links with changes in world markets. The second deals with the performance of Latin American agricultural production, its reaction and sensitivity to the recent changes in world markets, and distinguishes between what has happened with crops to what has occurred with livestock, fisheries and forestry. The third chapter concerns productive resources and technological inputs and touches on a number of questions related to the financing of agricultural activity. Finally, the fourth chapter deals with the availability of food in Latin America and changes in food prices; it also contains some hypotheses on future food demand, with the assumption that countries will take a firm course to eliminate food deficiencies in their populations.

The preparation of this report has led to a number of conclusions of interest to Latin America, the subregions which make up the different economic integration schemes, and the countries which belong to them.



2. Main conclusions

(a) In recent years, there has been a drop in the share of Latin American countries in the volume of world trade of agricultural products. Between 1965 and 1970 the volume of exports grew at an annual rate of 3.1 per cent, which fell to scarcely 0.8 per cent between 1971 and 1974. In the latter period the volume of world agricultural trade grew by 3.7 per cent annually. Latin American beef exports deserve special mention: their volume fell by half between 1972 and 1974, for reasons which are given below.

This was not true of the value of exports - in current dollars - which grew by 30 per cent annually between 1971 and 1974; this growth has enabled the Latin American countries to maintain their relative share (13 per cent) in the value of world agricultural trade. Thus it was the rise in world prices which almost caused the value of exports practically to double between 1971 and 1974, reaching almost 16,000 million dollars.

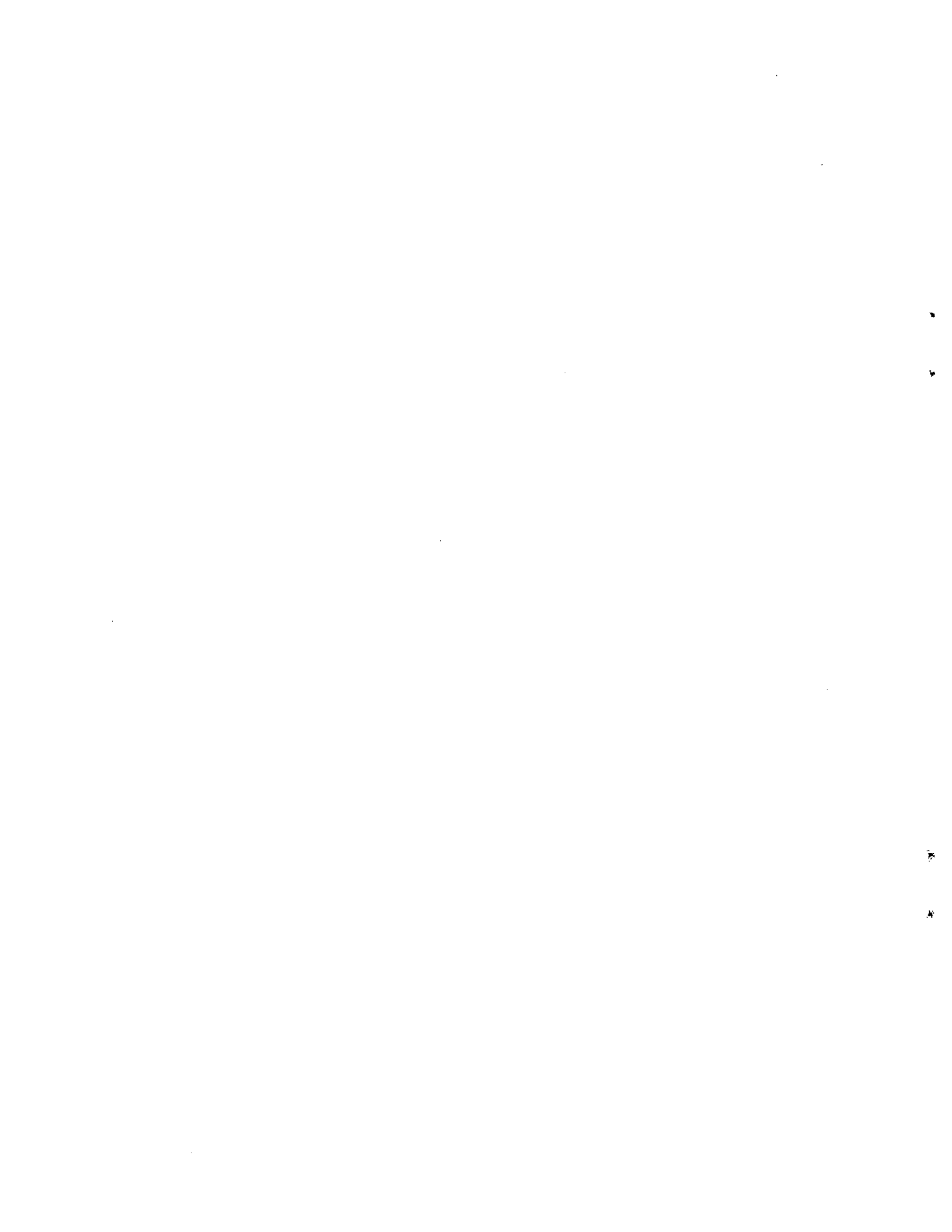
A few products were responsible for the rise in the value of exports. Between 1972 and 1973, the value of wheat, maize, sugar, rice, feedgrains and oilseed cake sales rose. Between 1973 and 1974, the countries of the region sold more maize, fishmeal, oilseed cake, cocoa, tobacco and rice, but had lower sales of wheat, vegetable oils, sugar, coffee, cotton and particularly beef.

Because of the obstacles and restrictions which adversely affected Latin American external agricultural trade, the region did not take more advantage of this opportunity to expand the volume of its exports, which becomes more serious if it is recalled that the region has a productive potential which is not sufficiently exploited.

Given the circumstances of the international economic situation, agriculture had a smaller share in the total export earnings of the countries of the region. Agricultural exports, at current prices, represented 48 per cent of total exports in 1971, maintained that percentage until 1973 and dropped to 35 per cent in 1974. If Venezuela is excluded, this proportion drops from 61 per cent to 35 per cent respectively. The volume of the region's agricultural imports grew by almost 10 per cent yearly between 1971 and 1974. In terms of value and in current dollars, this rise was about 40 per cent annually and passed from 2,300 to 5,700 million dollars. The ratio of agricultural imports to total imports remained at about 13 per cent, except in 1973 when it rose to 15 per cent. Thus the net foreign trade balance of the Latin American countries deteriorated slightly in 1974, when the ratio of agricultural imports to exports rose to 37 per cent, after having stood at 31 per cent in previous years.

(b) The study shows high growth of agricultural production, the volume of which rose by 6.2 per cent in 1974 over the previous year. This sharp rise is partly explained by the relative normalization of crop production after two years of bad harvests, and by the capacity of regional agricultural to respond to the stimulating conditions of world markets in 1973. It is also explained by the better incentives offered by domestic markets as a result of the growth of some national economies.

By analysing the crop subsector and the livestock subsector separately, it is possible to draw preliminary - but as concrete as possible - explanations of developments in agricultural production in Latin America. The subsectors have a



different degree of flexibility or variability because of the different nature of crops and livestock farming, the mobility of the productive resources engaged in each subsector, the time needed to complete the productive periods or cycles and the amount of dependence on various atmospheric factors. All these elements account for a relatively higher degree of regularity in the performance of livestock production, and they also affect the level and capacity of adjustment of either subsector to changes in domestic and external markets. In theory, it is easier for producers - excepting subsistence farmers - to make changes in their short-term plans for crops, particularly those with short growth cycles, than for livestock, particularly in the case of beef.

The large rise in the volume of crop production, which in 1974 was 8.4 per cent above 1973, was caused, firstly, by a sharp rise in coffee production, which returned to previous levels after the extremely low harvest of the previous year. If coffee is excluded, production of other crops grew by 5.8 per cent, which in any event is a considerable increase compared to previous growth. In the second place, it was due to the higher production of some crops intended both for the domestic market and exportation, mainly, soybeans, cotton, sorghum and to a lesser extent wheat and sugarcane. It should also be borne in mind that, if coffee is excluded, in 1973 crop production rose by 3.5 per cent over 1972.

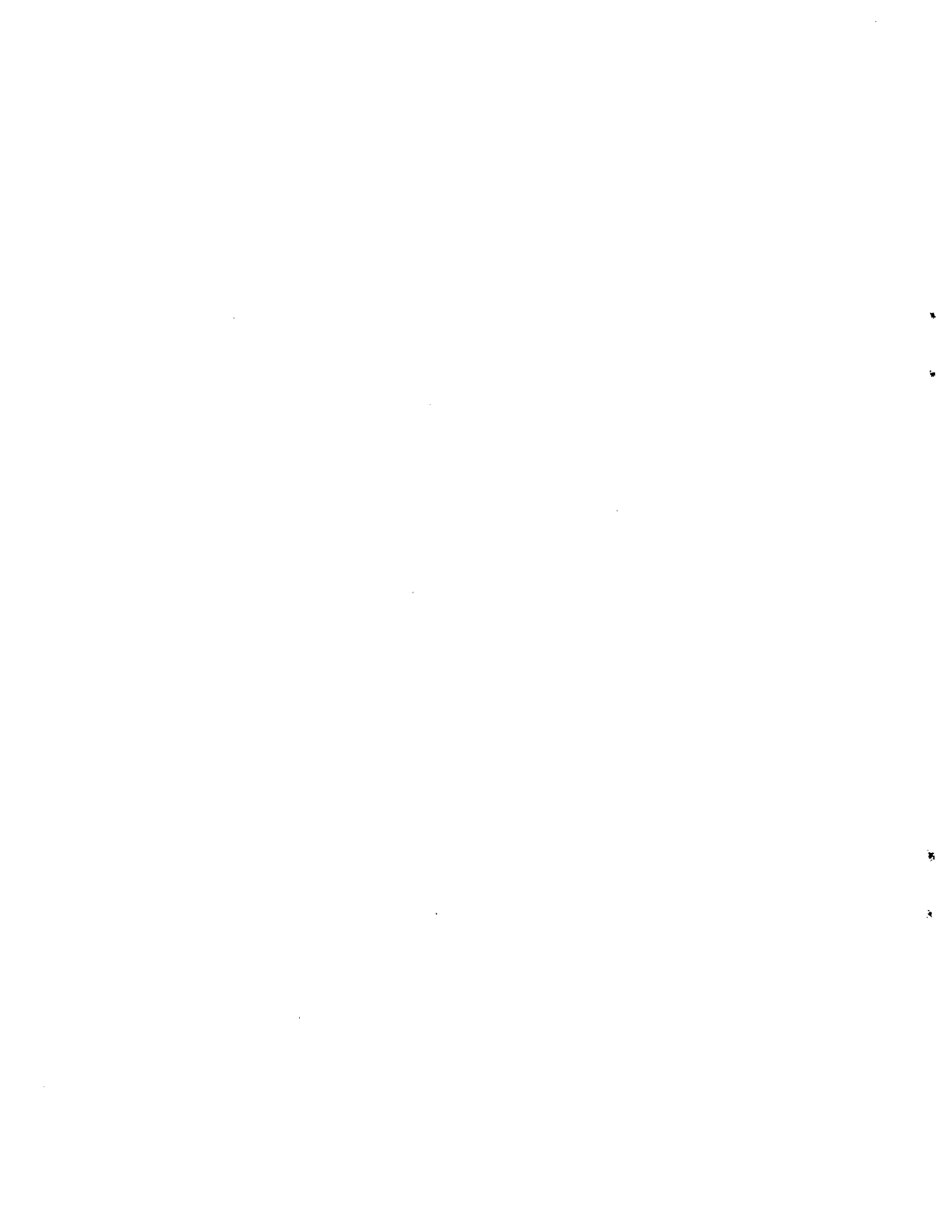
It may be seen from all this that the changes in crop production which occurred during 1974 reveal not only sensitivity but also a relative flexibility of agricultural supply in the face of a favourable demand situation.

It is estimated that in 1975 the rise in crop production might amount to 2.2 per cent over 1974. This means that the physical volume of the record harvest of 1974 will not be merely maintained but even surpassed, despite the smaller quantity of cotton sown, the frosts which affected the coffee harvest in Brazil and the lower use of fertilizers. If those two products are excluded, the rise in other crops might amount to 5 per cent in 1975, since soybean production has continued to grow, the wheat harvest has been excellent and a rise in banana production is expected.

(c) Changes in livestock production in recent years do not appear clearly if the analysis does not include changes in livestock numbers. The volume of livestock production grew by 2 per cent between 1971 and 1974. If changes in stocks are included, the rate of increase was 3.1 per cent in the same period, with a fairly stable performance from one year to the next.

Cattle raising continues to be faced with the age-old problem of achieving constant growth with a balance between beef production, domestic consumption and foreign trade. This problem grew worse in 1974 and 1975 because of the excessive protectionism and the closure of markets of a large group of developed countries.

The rise which occurred in 1971 in international beef prices encouraged producers to retain breeding stock with a view to increasing future productive potential, and therefore the regional slaughter rate for cattle fell by 2 per cent. World prices reached record levels in 1973 and then dropped sharply, and continued to fall until 1975. In 1974 there was a substantial fall in world trade of cattle and beef. This drop was largely caused by the smaller net imports of cows, veal and beef by the European Economic Community. Other Western European countries, Japan and the United States also imposed import restrictions.



The fall in prices and export restrictions caught the Latin American livestock exporters as they were expanding their stocks. In 1974 Latin American productive potential was high, and continues to be so today in all the main exporter countries. As a result of the fall in prices and export difficulties, 1974 marked the end of the cyclical phase in which there is a tendency to hold back livestock and increase herds. A phase of perhaps excessive elimination began so as to meet domestic consumption, which reached record levels in Argentina, and this caused further downward pressures on prices. There has been a tendency for slaughter to increase, particularly of breeding stock, and the livestock density in pastures has fallen. This trend may continue until late 1976, and should this occur a drop in beef production may be expected in the immediate future.

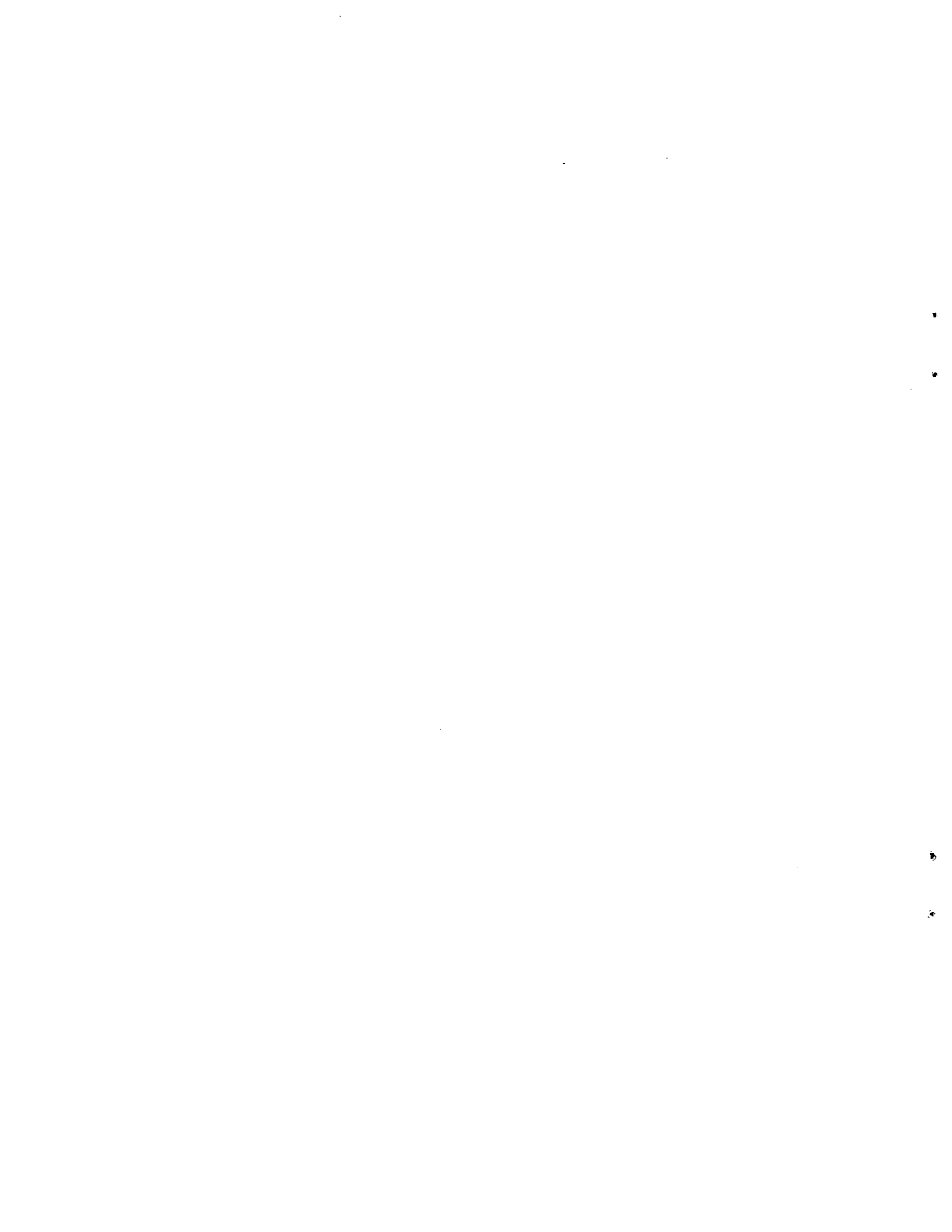
The production of pigs, sheep and goats has not changed significantly. Poultry production has continued to maintain steady growth, which may be affected in some countries by changes in the terms of trade between beef and poultry meat, and by a possible reduction in consumption as a result of inflation and the lower level of economic activity nationally, all of which may lead to a contraction of production.

(d) A small number of large countries - Argentina, Brazil, Colombia and Mexico - account for almost three-quarters of the physical volume of production in Latin America. Even though the volume of agricultural production in Mexico only grew in 1973/1974 by one per cent, in the other three countries it grew at rates of nearly 7 per cent. This, combined with the high growth in other countries with smaller agricultural sectors - Chile, Dominican Republic, Paraguay, Uruguay and Venezuela - caused regional agricultural production to grow by 6.2 per cent between 1973 and 1974.

(e) The development of regional agriculture continues to be based essentially on the expansion of the cultivated area. This horizontal growth has been achieved both by expanding agricultural frontiers, particularly in zones located in large hydrographic basins, and by the more efficient use of the land already under cultivation in productive units. Between 1970 and 1974 the harvested area grew by 6.5 million hectares, at a faster rate of growth than in the Sixties, during which it grew by 15 million hectares. The speed with which the sown or planted area has grown has basically been determined by favourable market conditions, attractive prices, the length of the productive cycle, climatic conditions and government action to give greater support to the productive process.

In 1974, there was record growth of the cultivated area. In that year alone 4.2 million additional hectares were cultivated, representing an increase of 5.3 per cent over the previous year. This shows that changes in the cultivated area do not occur gradually or regularly, but occur in years in which the demand outlook is more attractive. This growth was mainly in two important groups of products; an extra 2.2 million hectares were devoted to cereals - maize and sorghum - and the other newly cultivated areas were devoted to oilseeds - particularly soybeans. As a result, changes have been occurring in land use and in the location of crops, with some being displaced and others introduced or expanded.

Together with the growth of the cultivated area, there have been changes in the average yield of cultivated land, although on a lesser scale. Between 1971 and 1974 the average unit yields of the crop subsector accounted for a little more than one-third of the rise in production, which, though not spectacular, has its importance since it occurred at the same time as a sizeable increase in the cultivated area and indicated an improvement of average productive efficiency.



(f) Modern technology has been incorporated increasingly in the productive process, primarily in the form of a better use of fertilizers. Technological progress has not had a generalized effect on all productive units. Because of their knowledge and access to markets and sources of financing and also to the sources of dissemination of modern technological innovations, the large and medium-size producers have benefitted most from this technological development and have been able to take greater advantage of market opportunities, at the expense of the small producers.

This process of modernization of national agricultural sectors has involved a rapid incorporation of basic technological inputs, such as fertilizers, pesticides, genetically improved seeds and plants, the use of a variety of energy sources and also of efficient tools and machinery in agriculture.

The use of chemical fertilizers grew at a rapid rate in Latin America - 14 per cent annually - between 1963 and 1973. The considerable rise in fertilizer prices due to various factors which caused the so-called fertilizer crisis, and the fact that the region imports 60 per cent of its consumption, led to a drop in consumption. In 1974, with a few exceptions, countries did not have serious supply deficits, but paid very high prices for their imports. The excessively high cost of fertilizers was the most harmful feature of the fertilizer crisis for Latin American agriculture.

From the agronomic point of view, the crisis had more serious consequences than was initially foreseen. In 1974 and 1975 the total volume of main nutrients - nitrogen (N), phosphorus (P) and potassium (K) - used in agriculture fell with respect to the previous year, with the result that there was a break in the trend to use larger amounts of fertilizer in the productive process. The use of fertilizers fell by 6.3 per cent - from 4.1 million metric tons of NPK in 1973/1974 to 3.8 million in 1974/1975 - and the consequences will only be measureable in late 1976. Naturally the impact will not be the same for all agricultural sectors and all products. It will depend on the fertilizer levels reached, the productive technologies used, the price levels of the products whose cultivation requires large amounts of fertilizers, official policies on input prices, etc. It is estimated that until 1980/1981 Latin America will consume 2 million less metric tons of fertilizers (NPK) than it would have consumed if the trend prior to the crisis had been maintained.

World fertilizer prices began to drop in 1975 and a number of countries of the region have taken measures to revive consumption, particularly for the crops in which fertilizer consumption is concentrated. Available information shows high fertilizer consumption for bananas in Ecuador, cereals in Chile, Uruguay, Venezuela and Colombia, and tubers in Colombia, Ecuador, Uruguay and Chile. Coffee accounts for a quarter of fertilizers used in Brazil and Colombia. Three products - coffee, bananas and sugarcane - account for 70 per cent of fertilizer consumption in Costa Rica. It is therefore reasonable to suppose that the fall in fertilizer purchases and use by farmers will basically affect this group of products, which represents approximately 40 per cent of the physical volume of agricultural production in Latin American countries.

(g) There has been greater concern on the part of the public sector for the sources and volume of financing, and for the orientation of investment in agriculture. This heightened concern of Governments in various countries has led to a larger supply of funds for agricultural and livestock credits for final use by the private sector, intended for marketing infrastructure, agribusiness, exploitation of



natural resources and particularly expansion of the irrigated area. Barely 12 per cent of cultivated land in Latin America is equipped with irrigation systems, but it contributes nearly 20 per cent of the physical volume produced. This contribution is relatively low, mainly because the majority of crops with higher unit prices, such as coffee, sugarcane, cocoa and bananas, are cultivated without irrigation. National efficiency in the use of irrigated land fluctuates between 47 and 94 per cent. This implies that the majority of irrigation systems have a low level of utilization. There are many reasons for this low level of use, but probably one of the most important factors is the lack of organization in the use of irrigation systems, together with irrigation practices which are unsuited to local conditions and the requirements of the crops under cultivation.

International financial aid to Latin America agriculture has increased in recent years. The 260 million dollars loaned in 1971 by multilateral and bilateral international bodies may become loan targets of almost 900 million dollars in 1975. In five years (1971-1975) agriculture in the region has received external financing in the amount of almost 2,400 million dollars. In 1975, the volume of resources arriving from outside the region could be 50 per cent above the 1974 total. This sizeable increase reflects the greater concern for and interest in agricultural development and food production in Latin America on the part of multinational and bilateral agencies.

National credit institutions and programmes have had to exert themselves to overcome the complex programmes involved in the channelling of new financial resources to the great mass of farmers. The proportion of producers receiving institutional credit varies between 10 and 40 per cent, and within these percentages the main beneficiaries are the large and medium sized farmers. The small farmer remains on the fringe, because of the cost of services and because he is considered a risk. Despite the praiseworthy efforts made by countries of the region, the majority of small farmers have relied on relations, friends, dealers and moneylenders to meet their credit requirements. The countries still have to settle the problem of creating more credit institutions, or strengthening those which already exist, for the mass of small farmers to have access to credit institutions capable of meeting their needs.

(h) There have not been appreciable changes in the average availability of food per capita in the countries of the region, despite recent international economic circumstances, the world food crisis and the different rate of growth of the Latin American economies. This assertion is based both on the rise in production of crops and livestock mentioned above, and also on the fact that there has been no real change in the proportion of imports in the total availability of food.

In 1971/1974 the region as a whole produced 10 per cent more caloric energy per capita than was made available for human consumption. National production - with the exception of Venezuela and Chile - provided over four-fifths of the national availability of daily calories per capita.

While it is true that the availability of food fundamentally has not varied, widespread inflation in 1973 and particularly in 1974 caused consumer prices of food to rise more rapidly than the cost of living index in almost all Latin American countries. Inflation in the region as a whole in 1974 reached a rate of 34.6 per cent, while food prices rose by 47.8 per cent as a regional average, in other words, rose by 13 per cent more than general inflation. This has hurt consumers, particularly the poorest population groups. When the proportion of household spending on food is very high, it practically reaches a ceiling, and faced with



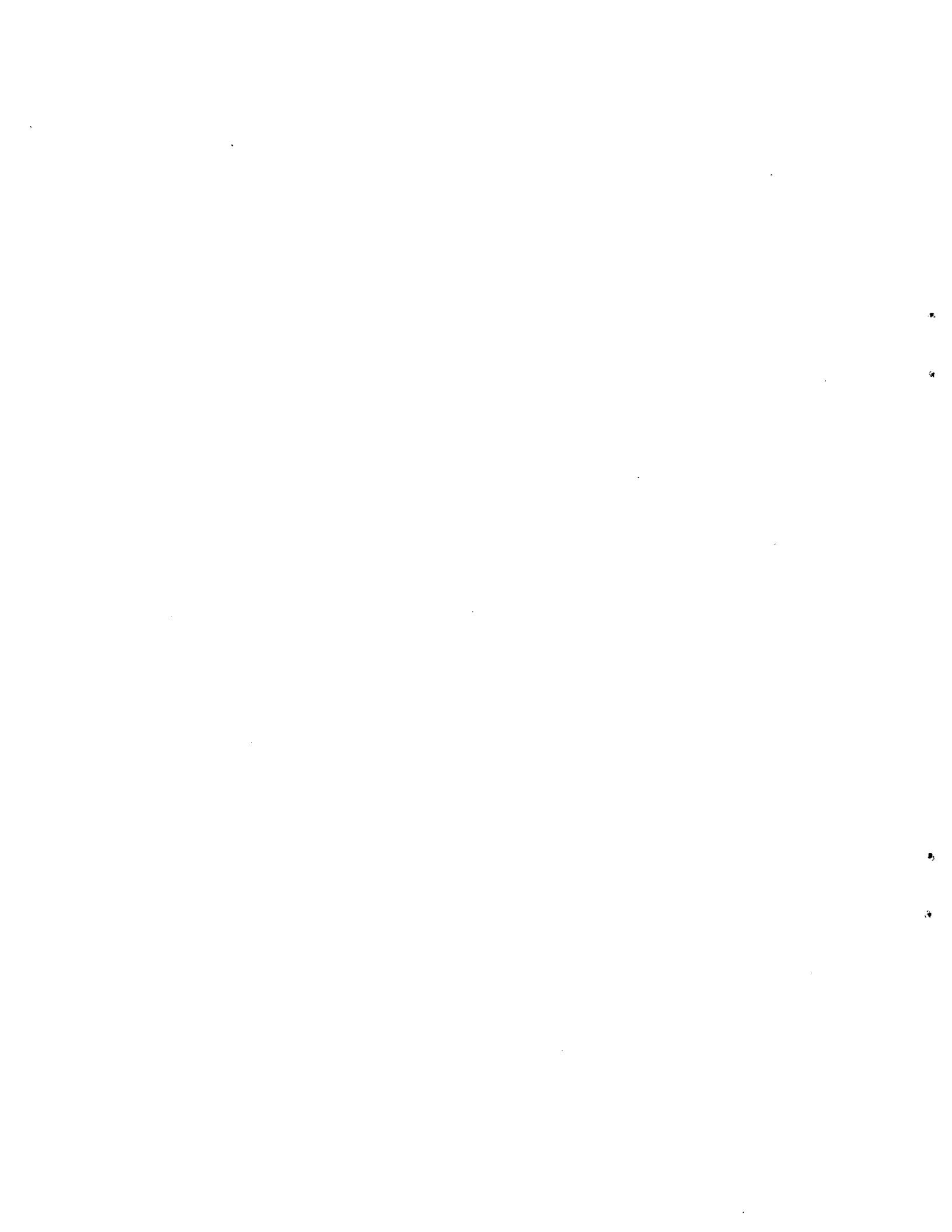
price rises the lowest-income families are obliged to reduce the quality or even the quantity of their food, thus lowering the nutritional level of the population. This situation has varied according to the composition of the diet in each country, since the rises in food prices have not been equally large for all products. The rise in prices of cereals or sugar, for example, was generally greater than the rise in prices of starchy roots and tubers.

On the basis of the available information on income distribution in Latin America and on the behaviour of the different income strata, a rough sketch has been made of the calorie deficit and surplus profile of the region with regard to minimum requirements; the size of the resulting food deficit in Latin America is different and more serious than would appear from the national calorie consumption averages alone. The consumption of the very low income group (20 per cent of the population) appears to show a marked calorie deficiency, and the low income group (30 per cent of the population) has a caloric energy consumption below minimum requirements. It may justifiably be supposed that, in such a situation, some of the protein consumed by the population included in these groups would mainly be used as a source of energy, and as a result would not be used fully for its own functions. The middle and high income groups (30 per cent and 20 per cent of the population respectively) have a calorie consumption equal or superior to minimum requirements, and the consumption of the very high income group is characterized by wastage of caloric energy. It is impossible to draw precise conclusions from a regional estimate as to the number of persons in danger of malnutrition, because very little is known on family distribution within each income step; nevertheless, in studies ^{a/} of the world food situation, it was estimated that in 1970 there were 36 million persons in the region who were threatened with protein-calorie malnutrition. This estimate is rather conservative and only includes 13 per cent of the Latin American population. If this proportion was maintained until 1975, there would be 42 million persons threatened with protein-calorie malnutrition.

Latin America has a positive net agricultural foreign trade balance; the region exports more caloric energy than it imports. However, if sugar is excluded, the Latin American countries may be considered to be net importers of calories. In the period 1971/1974, net exports by the Latin American countries amounted to 450 calories daily per capita. An analysis of foreign trade in calories shows that some products are particularly important; thus, for example, sugar alone accounts for 40 per cent of calories exported; cereals, especially wheat and maize, account for 35 per cent, and the rest are provided by some secondary cereals, oils and fats and beef.

After this description of the main conclusions which emerge from this report, it must be repeated that the fact that the document is centred on the analysis of a limited number of questions does not in any way mean that the other aspects of agricultural and rural development have been underestimated. Nor does it mean that only the aspects covered in these pages determine the performance of agricultural, livestock, forestry and fisheries. Because of the lack of recent information and the temporal and spatial limitations on this kind of conference document, it was not possible to include other aspects of fundamental importance, such as institutional and social factors, which might have helped to provide a more complete view of

^{a/} United Nations, Assessment of the world food situation, World Food Conference, E/Conf.65/3, Rome, 1974.



development in the agricultural and rural sector. A global analysis of that kind calls for information which could not be collected on this occasion, and an effort to appraise the processes of agrarian reform, which has not yet been carried out as thoroughly as the subject requires.



I. THE LATIN AMERICAN ECONOMIC SITUATION AND THE PARTICIPATION
OF AGRICULTURE IN OVERALL DEVELOPMENT

1. Salient features of the present evolution of the
Latin American economies and their relation
with the agricultural sector

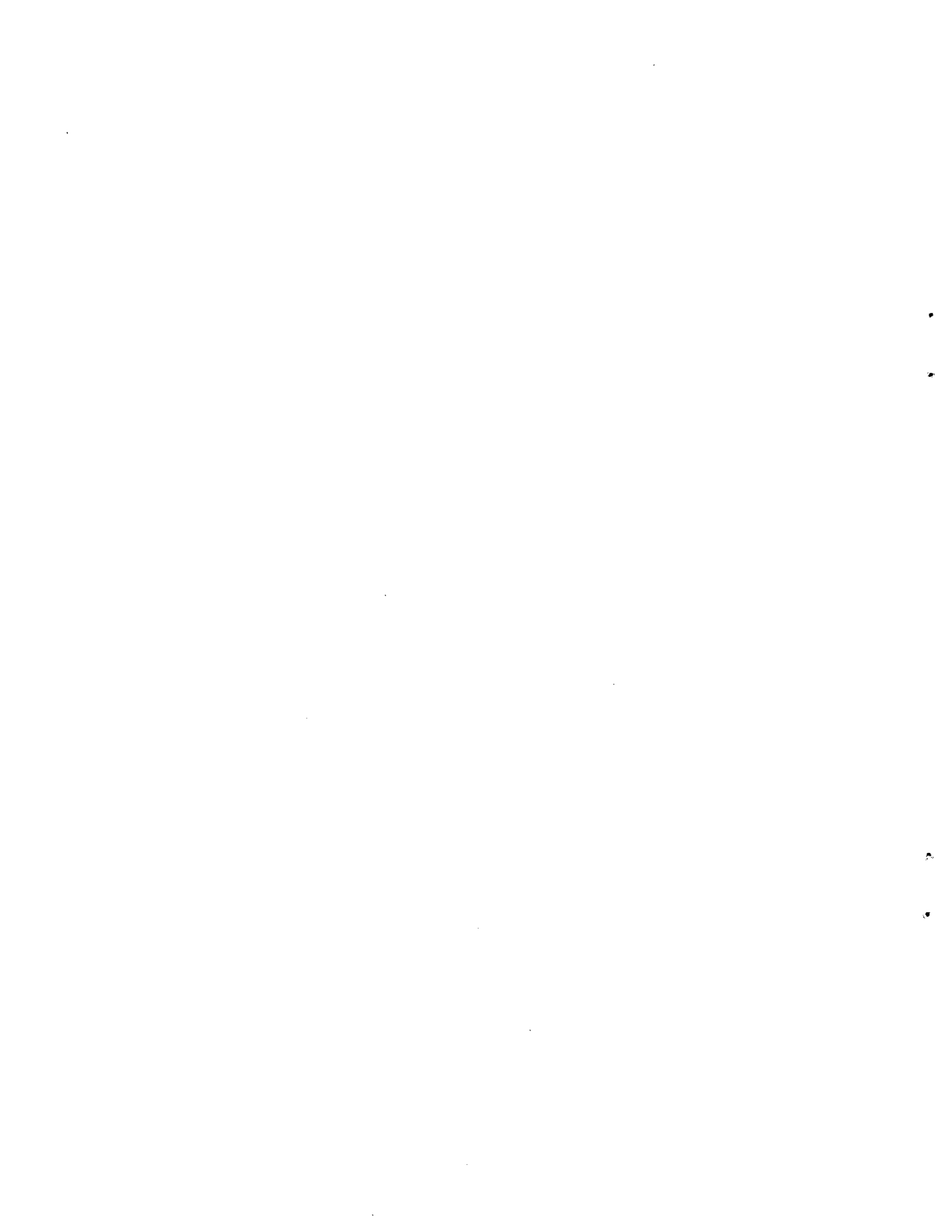
According to the latest Economic Survey of Latin America,^{1/} the second half of 1974 represented an interruption of the favourable trends recorded in Latin America's external sector. With the higher prices reached by most commodities on the world markets, these trends were decidedly intensified in 1973, even in the non-oil-exporting countries. In overall terms, the purchasing power of regional exports, after recording considerable gains, suffered a sharp decline in 1974.

It is relevant to recall that internally all the countries of the region are in varying degrees suffering the effects of what ECLA has called "imported inflation", which has come to have an evident multiplier effect additional to the countries' own inflationary processes. The structure and fluctuations of the external sector in each country always existed or in many cases played a decisive part in various outbreaks or phases of inflation. However, these factors have never had such a "predominant, widespread and intensive effect on the acceleration of prices as in the present situation. Moreover, coming to accentuate the original nature of the process, this time it is the reflection of a considerable expansion of trade and, in particular, a sudden substantial increase in export and import prices".^{2/}

Concurrently with this widespread inflationary process, the region experienced in 1974, for the third consecutive year, decided economic growth in terms of an increase in the gross domestic product of about 7 per cent annually, representing an improvement of about 4 per cent in the per capita GDP. This rate is slightly below that recorded in 1973 (4.2 per cent) and in part reflects a somewhat lesser dynamism in the production of Brazil, which in 1972-1973 reached a growth rate of

^{1/} ECLA, Economic Survey of Latin America, 1974 (E/CEPAL/982).

^{2/} Economic Survey of Latin America, 1974, op. cit., p. 37. Another passage in the same document (page 3) reads as follows: "Another feature of this state of affairs, which is unusual for many reasons, is that the problem under discussion goes hand in hand with another which is perhaps even more important: the loss of impetus and perhaps even the contraction of the central economies, which like inflation, is threatening to extend its effects to the rest of the countries that are linked with and dependent on the central countries in various ways. Furthermore, it is well known that the relative significance of each of these questions tends to change with the passage of time. Thus, for example, whereas in mid-1974 it seemed clear that inflation was considered the outstanding peril, towards the end of the first quarter of 1975 (i.e., the date of preparation of the present document) the main danger was economic stagnation".



over 13 per cent, and the following year - 1973-1974 - 9.6 per cent. In the latter period the LAFTA countries as a whole grew by 7.2 per cent, the countries of the Andean Agreement by 5.9 per cent and the Central American Common Market countries by 4.5 per cent (see table 1 in the annex).

Accordingly, the salient features of the recent evolution of the Latin American economies are to a greater or lesser extent linked on the one hand, with the changes in the supply and prices of export and import products and, on the other hand, with the capacity of the domestic production apparatus to react to those situations, and the structural possibilities of the economies, despite external changes, of defending their internal balance and their own growth characteristics.

In most countries of the region the agricultural sector makes a relatively small contribution to the gross domestic product, although it plays a more important part in the national economies for a number of reasons, such as its role in the supply of foodstuffs and employment and its contribution of foreign exchange obtained from agricultural exports. In order to place agricultural sector within the overall economic context, it is necessary first of all to identify some salient aspects of the development of the sector itself, not only as regards its reaction to external changes, but also in terms of the domestic capacity of the national economies to induce an adequate and prompt response to the evolution of agricultural activities.

2. Recent development of the Latin American agricultural sector

The gross domestic product of Latin America as a whole increased by 5.8 per cent in 1974 compared with 1973, which means an improvement of 4.2 per cent in the per capita GDP per agricultural inhabitant. If it is considered that the growth rate of agriculture in Brazil and Argentina was over 8 per cent in this period and that these countries' contribution to the region's agricultural gross domestic product was 41 per cent in 1974, it may be affirmed that the high rate recorded by the region is largely determined by the momentum shown in that year by the agriculture of those two countries. Table 1 presents the evolution of the total and per capita agricultural gross domestic product for the individual countries and the various sub-regional groups. It also shows the marked disparity in the growth of the agricultural gross domestic product of the various countries.

The evaluation of agricultural growth by means of the growth rates of the agricultural GDP has some limitations, among which, in addition to the impossibility of explaining the developments by examining the performance of the various crops, is the difficulty of identifying and assessing the effects of changes in the prices (both absolute and relative) of agricultural commodities and inputs on agricultural activity. For this reason, in examining the evolution of agricultural activity, the present document deals separately with the performance of agriculture from the standpoint of production volume at the sub-regional level and in the individual countries. This analysis is presented in chapter II.

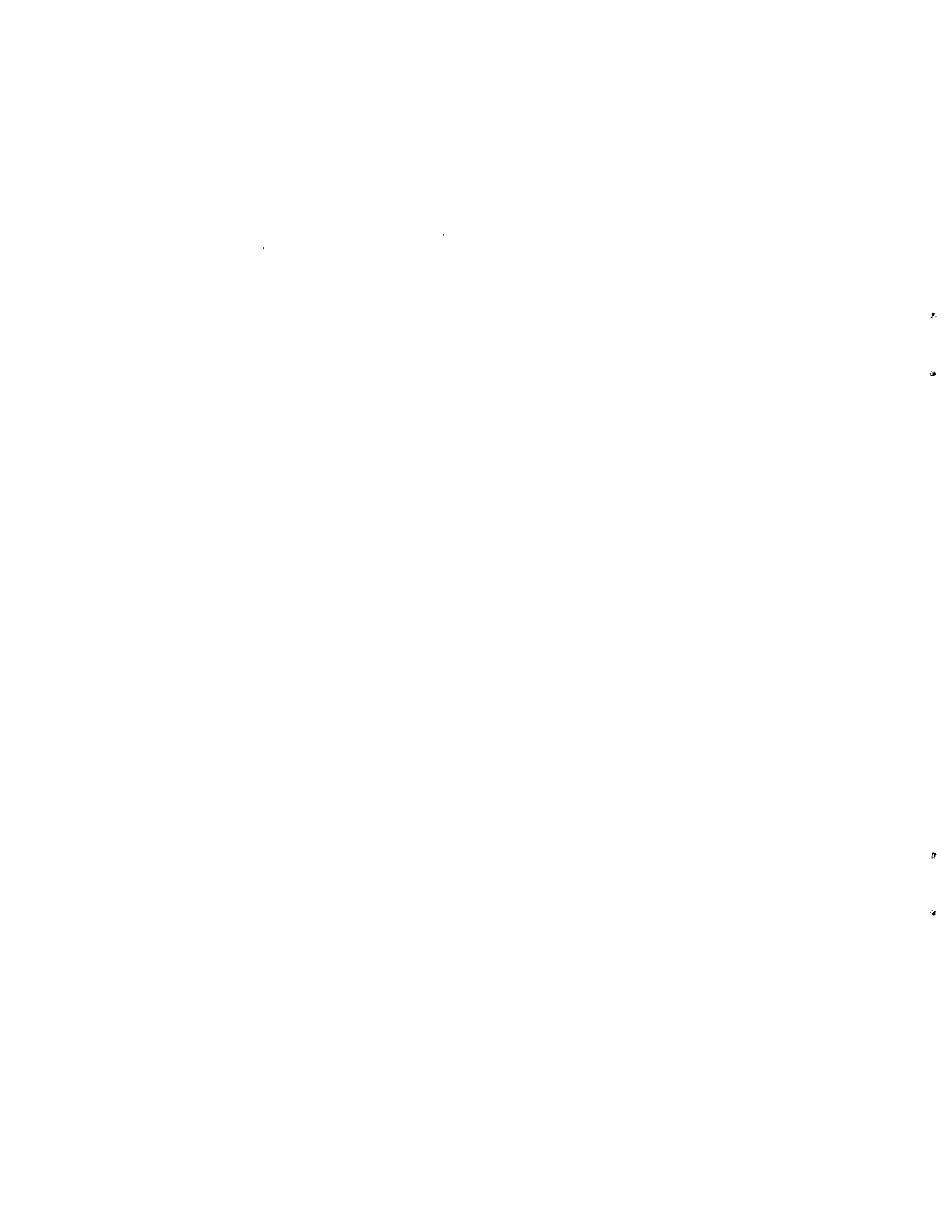


Table 1
LATIN AMERICA: EVOLUTION OF THE AGRICULTURAL GROSS DOMESTIC PRODUCT^{a/}

Country	Total			Per capita				
	1970- 1974	1972- 1973	1973- 1974	1970	1974	1970- 1974	1972- 1973	1973- 1974
	b/		c/	Dollars		Annual growth rate		
LAPTA	3.7	2.9	6.2	234	255	2.3	1.2	4.9
ANDEAN AGREEMENT	3.0	2.3	5.8	258	274	1.5	0.8	4.2
Bolivia	3.1	2.1	3.5	76	79	1.0	-	1.3
Colombia	4.8	5.3	5.5	327	365	2.8	3.2	3.4
Chile	0.9	-15.8	17.3	238	232	1.5	-15.8	17.2
Ecuador	1.1	-1.4	2.5	208	203	-0.6	-2.9	0.5
Peru	0.3	0.9	4.1	229	217	-1.3	-0.9	2.4
Venezuela	3.4	5.8	6.7	341	387	2.9	5.8	4.7
REST OF LAPTA	3.9	3.1	6.4	224	249	2.7	1.7	5.1
Argentina	2.4	5.6	8.1	1 053	1 210	3.7	6.8	9.4
Brazil	7.0	3.5	8.5	146	181	5.8	1.8	7.1
Mexico	1.4	0.6	2.4	227	224	-0.4	-0.9	0.4
Paraguay	7.1	9.7	9.7	233	276	4.4	6.6	7.0
Uruguay	-2.0	3.0	0.8	701	721	0.8	4.0	1.7
CAGM	2.5	6.4	2.7	208	231	2.7	4.1	0.4
Costa Rica	4.1	7.2	-2.0	368	409	2.8	6.0	-3.3
El Salvador	3.9	4.9	5.4	214	227	1.5	2.8	2.7
Guatemala	7.1	9.1	4.3	199	239	4.7	6.4	2.1
Honduras	1.6	4.5	-7.4	150	141	-1.4	1.3	-10.2
Nicaragua	6.0	1.7	10.0	203	234	4.2	0.9	7.8
CARICOM	...	...	...	...	...	...	...	...
Barbados d/	...	5.6	-7.7	345	...	...	...	...
Guyana d/	...	12.4	-3.7	187	...	...	...	...
Granada	...	...	...	...	...	...	...	...
Jamaica d/	...	-8.0	4.8	177	...	...	...	...
Trinidad and Tobago d/	...	-7.8	2.9	237	...	...	...	...
OTHER LATIN AMERICAN COUNTRIES	...	...	...	...	...	...	...	...
Bahamas	...	...	...	...	...	...	...	...
Cuba d/	...	10.2	2.3	...	...	...	...	...
Haiti	2.1	0.6	1.2	65	66	0.4	-1.5	...
Panama	3.4	3.4	3.4	417	453	2.7	2.3	4.4
Dominican Republic	4.7	6.6	3.2	144	158	2.4	4.0	1.3
TOTAL LATIN AMERICA e/	3.8	3.2	5.8	225	246	2.3	1.7	4.2

Source: ECLA, on the basis of official statistics, except in the case of CARICOM and Cuba where FAO figures were used.

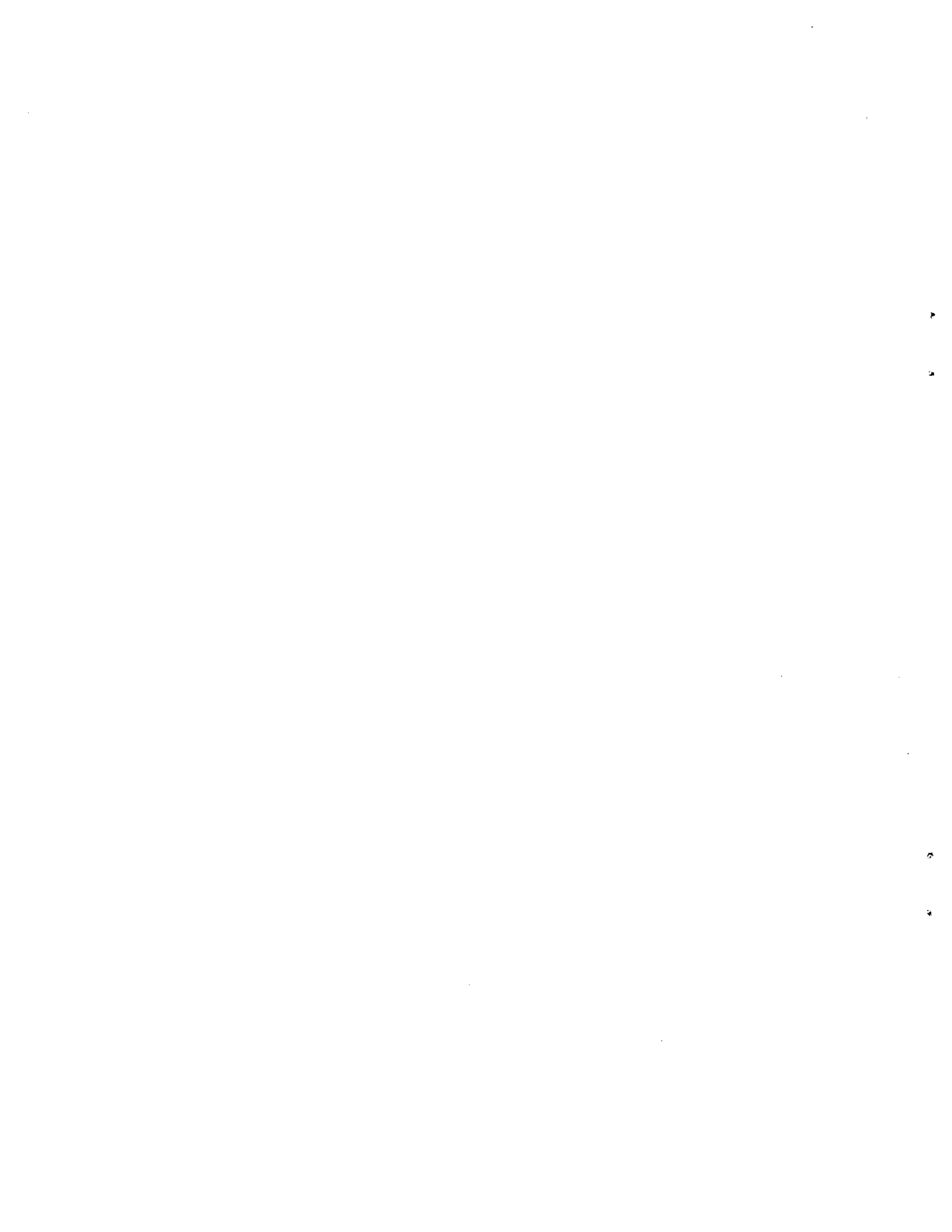
a/ At factor cost.

b/ Simple average of annual growth rates.

c/ Preliminary figures.

d/ Gross production value at constant 1969 prices.

e/ Excluding CARICOM, Bahamas and Cuba.



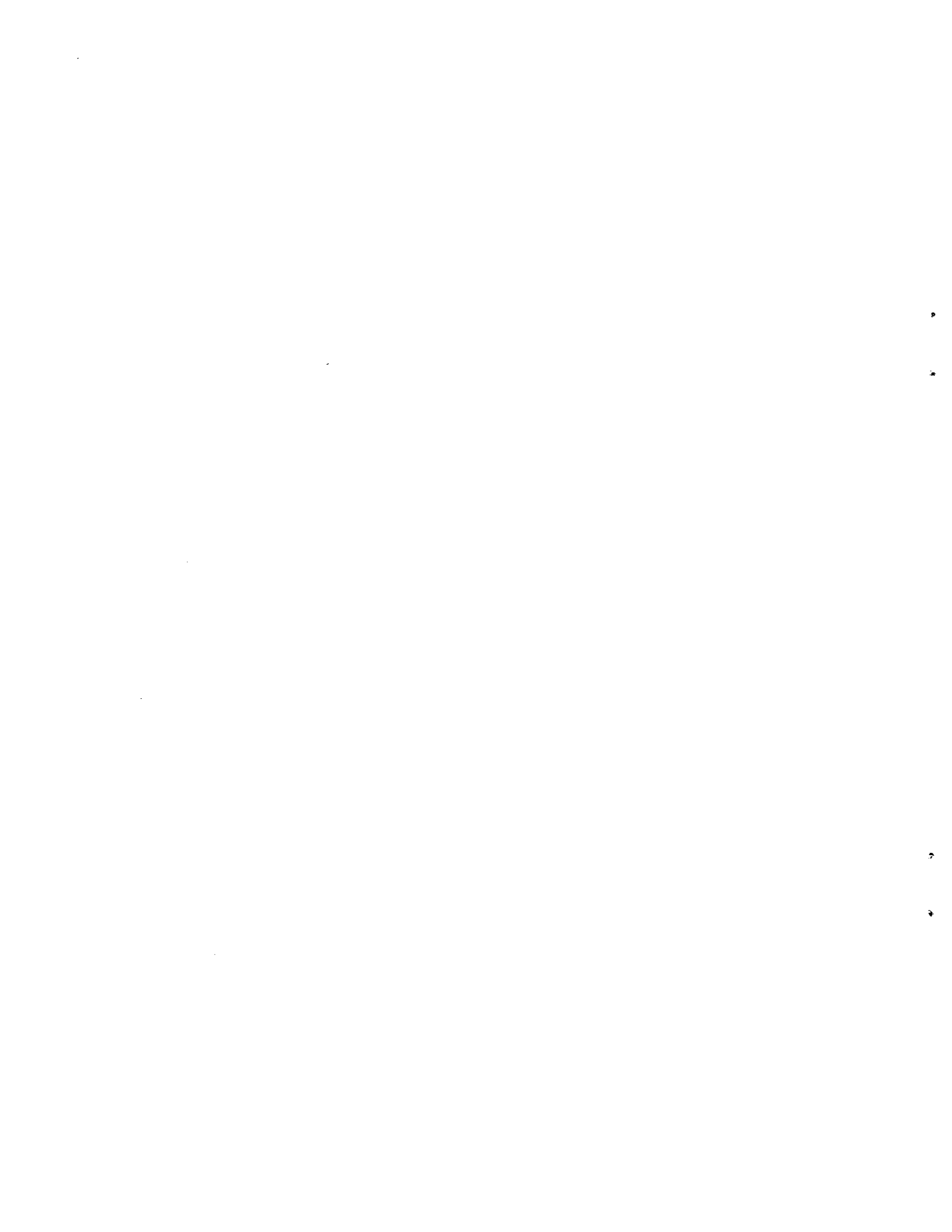
Some observations may be made here regarding the personal income of the agricultural population and, in particular, of rural workers. Although the personal income of the agricultural population is by definition a function of the value added generated by agricultural activity, its distribution and concentration within the sector are very unequal, and in line with the different growth characteristics of the agricultural sector. These factors seem to be linked to a greater or lesser extent, according to the country and the particular time, with the ownership and use of the resources, the technological levels of the different categories of agricultural holdings, wage levels, the intersectoral price relations and, in general, the type and nature of agricultural organization and, therefore, the form of participation of the population. Of particular importance is export agriculture, with a fairly satisfactory level of efficiency and an income largely dependent on the external prices of commodities.

It may be assumed that, whatever annual variations there may have been in the volume of agricultural production, the agricultural sector's real income has undergone substantial variations as a result of the changes not only in world prices but also in relative prices due to a number of direct and indirect external factors combined with a group of factors of essentially internal origin. Since prices have undergone unequal variations, both the input-output ratio and the output-income ratio have experienced significant changes. While the profit obtained by the agricultural producer has been substantially modified as a result of the variations in the cost of inputs and in the prices of his commodities, so also the amount of the value added (agricultural GDP) which represents actual income for the population increased at a rate which is not necessarily the same as that for production and the agricultural gross domestic product.

It often happens that the income of a large part of the population engaged in commercial agriculture does not necessarily reflect the changes in prices, both internal and external. Partial calculations indicate that in many countries of the region the income of wage-earners has followed its own trend, independent of the change in the structure of prices, while the changes in the prices of commercial agriculture were bound to have some effect, not only on the value of the labour but also on production from subsistence agriculture.

Between 1970 and 1974 the price of sugar on the world market increased more than eight times, that of rice nearly five times, that of wheat more than three times, that of cocoa three times, and prices of maize, beef and cotton more than doubled. According to the importance of these commodities in the agriculture of many countries in the region, there is no doubt that the above-mentioned price changes in some degree modified the sector's income. There are also observable some indirect chain effect similarly linked to the price systems and intersectoral relations of the economy as a whole. Among the main agricultural inputs, the prices of fertilizers rose over the same period between three and four times, and those of pesticides more than five times; some services such as transport have experienced unprecedented increases.

In 1974, the proportion of Latin America's agricultural output destined for external markets was nearly 18 per cent (see tables 2 and 8 of the annex). This is



the proportion which may be called "export agriculture" and which therefore varies at both the national and the sub-regional level,^{3/} according to the variations in the volumes exported or the volumes produced.

If world prices trends had a direct and proportional effect on the valuation of export agriculture, in both absolute and relative terms, the exported production, according to the composition of exports in each country, would double or treble in value. Of course, it must be considered that, as mentioned previously, production costs have also risen appreciably, mainly owing to the increase in the cost of transport, energy, and fertilizers and pesticides. In any case, however, on the basis of the incomplete data available, it would seem that such changes have not been sufficient to counteract the effect of the higher prices of export commodities on Latin American agriculture. This point is dealt with in greater detail in section 4 of the present chapter.

3. Share of agriculture in the overall Latin American context

In 1974 the agricultural population, defined as that obtaining its income mainly from its participation in agricultural activities, represented nearly 40 per cent of the total population of Latin America, compared with over 42 per cent in 1970 and nearly 50 per cent in 1960. The present situation is no different from that prevailing in 1974, when the agricultural population represented widely different percentages in the various countries of the region, ranging from 14 per cent in Argentina to 75 per cent in Haiti. In the LAFTA countries as a whole the proportion is barely 38 per cent; in the countries of the Andean Agreement it is 39 per cent, while in the Central American Common Market countries it is over 57 per cent. As the result of an accelerated process of urbanization, the annual rate of agricultural population growth in the region thus far in the present decade is 1.4 per cent, while that of the total population is 2.8 per cent (see table 3 of the annex).

Of course, both the rates of growth of the population (agricultural and total) and the size of the agricultural population in relation to the total vary considerably from country to country. As regards population growth, Argentina, Barbados, Chile, Jamaica, Trinidad and Tobago and Uruguay are at the bottom of the scale, with annual rates of less than 2 per cent, while at the top are Colombia, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, Paraguay and Dominican Republic, with rates of over 3 per cent annually. There is a certain correlation between the low rates of population growth and a high degree of urbanization; thus, in none of the countries with a population growth of less than 2 per cent annually in 1974 was the proportion of agricultural population in the total over 25 per cent. Likewise, in all the countries recording annual rates of increase of over 3 per cent, the proportion that year was over 40 per cent, and in several over 50 per cent.

^{3/} Section 4 of this chapter presents a more detailed view of the evolution of export agriculture at the national, sub-regional and regional levels.

The share of agriculture in the total gross product varies from country to country. In aggregate regional figures the agricultural gross domestic product represented 13.3 per cent of the total gross domestic product in 1974. In view of the low rates of increase for agriculture compared with other sectors, this percentage has been steadily declining; for the region as a whole it dropped from 15 per cent in 1970 to 13.3 per cent in 1974. In 1974, Argentina, Chile, Jamaica, Mexico, Trinidad and Tobago, Uruguay and Venezuela were in a position somewhere below the regional average, while Colombia, El Salvador, Guatemala, Haiti, Honduras, Nicaragua and Paraguay were above the 25 per cent mark (see table 3 of the annex).

A glance at Latin America's real income in the light of the available indicators clearly shows that the income of the population engaged in agriculture is lower than that of the population employed in other sectors. This means that the product per agricultural worker in terms of value added (or gross domestic product) generated per active person is small in comparison with the non-agricultural sectors. In addition, the average volume of production per hectare and per person employed is low in comparison with that of other countries or with theoretical and possible averages. Lastly, the situation of low per capita productivity is also accounted for if consideration is given to the manifestly low capital-intensity per worker in agriculture and to the fact that economic policies have tended to favour capital formation in non-agricultural sectors, particularly industry.

In the various countries of the region the low agricultural product per worker is an even more serious problem, if consideration is given to the unequal distribution of agricultural income among the agricultural population, attributable among other reasons to the prevailing structures of land tenure largely linked to highly unequal levels of technology in the various categories of agricultural activity. In addition, the rates of unemployment and under-employment in the region as a whole are 20 to 30 per cent of the total economically active population, which from the standpoint of the distribution of income makes the situation even more dramatic.

In table 3 of the annex it may be seen that in 1974 the agricultural gross domestic product per agricultural inhabitant for the region as a whole represented less than 23 per cent of the non-agricultural gross domestic product. The figures for Bolivia, Brazil, Mexico and Dominican Republic are lower than this regional average, and only those for Argentina, Paraguay and Uruguay are over 50 per cent.

Lastly, attention is drawn to the greater relative weight carried by a few countries of the region in the regional agricultural gross domestic product. Almost one-third of the regional total is accounted for by Brazil, and nearly three-quarters by only four countries: Argentina, Brazil, Colombia and Mexico (see table 4 of the annex).

4. The Latin American agricultural sector and foreign trade

(a) Share of Latin American exports in world demand for agricultural exports

In 1973, and particularly in 1974, the main feature of international trade in agricultural commodities and inputs was the rise in prices, which in some cases reached their highest level in the last 30 years. These rises affected the countries of the region in varying degrees according to the composition of their exports and the degree of dependence of the domestic markets on agricultural imports. In the last few months of 1974 and the first half of 1975, the international markets recorded appreciable drops in the prices of most agricultural commodities. However, in spite of these decreases, prices remained at much higher levels than those prevailing up to the middle of 1972. In broad terms, FAO considers ^{4/} that the immediate market prospects for agricultural commodities in 1974/1975 are a continued drop in prices, which would be mainly due to the expected increases in world agricultural production, particularly of cereals and sugar.

Between 1971 and 1974, the value of world agricultural exports grew at an annual rate of 26.8 per cent. The countries of Latin America recorded an increase slightly higher than the world rate - 27.7 per cent annually - though lower than that attained by the developing countries as a whole, i.e., 28.4 per cent. The period 1972-1973 marked an unprecedented increase of nearly 44 per cent in world agricultural trade. In 1973-1974 the increase was only 20.6 per cent, mainly owing to the drop in prices at the end of 1974. The developing countries as a whole showed increases of 38 per cent and 27 per cent respectively in these two periods. The Latin American countries attained an increase of 42 per cent in 1972-1973 and 25 per cent in 1973-1974 (see table 5 of the annex).

The value of agricultural exports from the Latin American countries is estimated to have risen from 7,500 to 15,600 million dollars at current prices between 1971 and 1974. This growth would seem to have enabled them to maintain their share of 13 per cent of the world total (see table 6 of the annex). In other words, the foreign exchange earnings of the Latin American countries from their agricultural exports show an increase in the period under review compatible with that attained by the developing countries as a whole and even with that of world agricultural trade.

The position with regard to the volume exported was somewhat different. According to FAO estimates (see Trade Yearbook, 1974), between 1971 and 1974 the Latin American countries increased the quantities sold by barely 0.8 per cent annually. In the same period, the volume of world agricultural trade grew by 3.7 per cent annually. For the countries of the region 1974 was a particularly adverse year, as may be seen from the following figures.

^{4/} FAO Commodity Review and Outlook, 1974-1975.

	Indexes				Annual rates			
	1971	1972	1973	1974	1971/ 1972	1972/ 1973	1973/ 1974	1971/ 1974 a/
World	100.0	107.9	117.3	111.0	7.9	8.7	-5.4	3.7
Latin American countries	100.0	103.5	109.6	101.8	3.5	5.9	-7.1	0.8

a/ Simple average of annual rates.

There has obviously been a decline in the relative share of the Latin American countries in the supply of agricultural products to meet world physical demand for such goods. To achieve a better appraisal of this unfavourable situation, the analysis that follows will focus on the ten main agricultural products ^{5/} exported by the Latin American countries. These ten products amounted to 43 per cent of the world total in the same periods. (See again table 6 of the annex). In view of the great relative importance of these ten products in the total of Latin American exports, the analysis of the region's agricultural foreign trade has been based on the study of their behaviour both in the area of world supply and demand, and in that of prices and reserves. The analysis is selective because of the need to centre attention on the most important products, without thereby overlooking the fact that some other products are of fundamental importance for the economies of some countries (see table 7 of the annex).

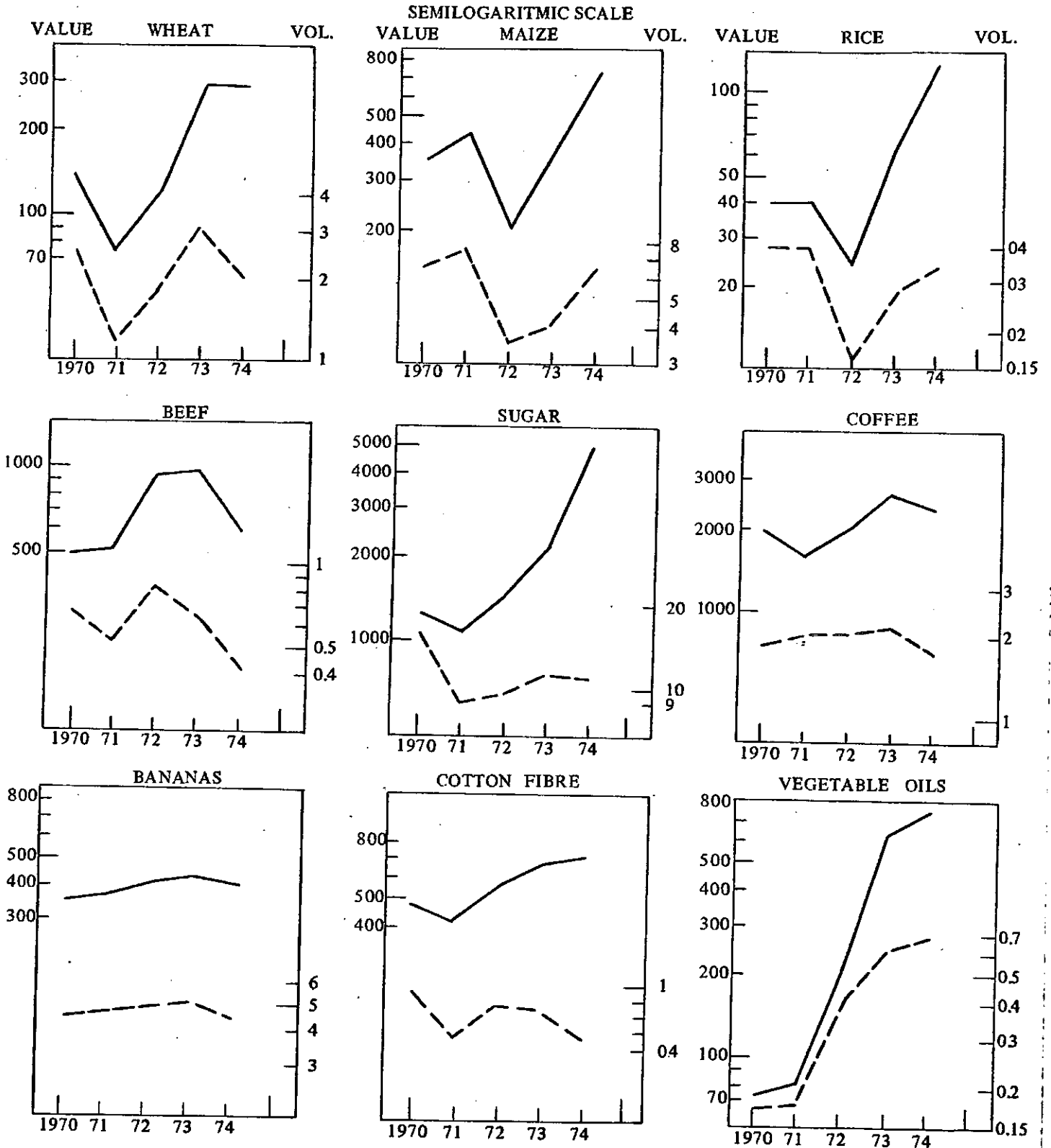
Exports throughout the world of wheat, maize, cotton and sugar reached a peak between 1972 and 1973. Latin American sales of wheat, maize, barley, rice, sugar and oilseed cakes also rose in that period. At the world level, beef exports rose in physical terms, but the volume sold by the Latin American countries fell by almost one-fifth. Between 1973 and 1974, the countries of the region sold more maize, fishmeal, oilseed cakes, cocoa, tobacco and rice, but less wheat, vegetable oils, sugar, coffee and cotton. Special mention should be made of what happened to beef exports, which fell by over one-third in relation to the already low figures of the previous year.

Figure 1 shows the annual variations, in volume and value - at current prices - of the exports of the countries of the region for seven of the main products exported. Only the volume of exports of vegetable oil was clearly higher than in the base year, 1970; the average volume of exports of the other products, until 1974, with the exception of bananas and coffee was equal or slightly inferior to the 1970 level. This was not the case of the value of any of those products. In 1974, the value of beef sales was scarcely a quarter higher than in 1970.

^{5/} Coffee, sugar, beef, cotton fibre, maize, bananas, wheat, tobacco, rice, edible oils and cocoa.

Figure 1
LATIN AMERICA: EXPORTS

— Value, millions of dollars at current prices
- - - Volume, millions of metric tons



(b) Dependence of the Latin American countries on the world market for agricultural products

It is very important to know to what extent the domestic economies of the countries of the region are affected by the variations in the world market. The vulnerability or dependence of the agricultural sector will be greater or less according to the importance both of the proportion of production intended for export and also of agricultural imports in relation to the domestic supply or availability of such products. In the latter case, any change either in external supply or in the level of international prices will have repercussions, through the domestic markets, on the national economies. (See table 8 of the annex.)

The proportion of agricultural production exported in 1974 was under 6 per cent in Bolivia, Chile and Venezuela. In other countries, such as Cuba, Nicaragua, Guatemala and Costa Rica, the proportion was over 40 per cent, and reached 50.5 per cent in El Salvador. In Argentina, exports represented 29 per cent of total production in 1971 and fell to 24 per cent in 1974 because of the drop in the beef sales. As was pointed out above, the countries of the region exported 18 per cent of their physical agricultural production. The increased volume of sales of some products by some countries did not manage to compensate for the greater fall in others (see also tables 12, 13 and 14 of the annex).

Imports of the countries of the region fell slightly in relation to the volume of domestic supply. They dropped from 12.2 per cent to 11.1 per cent between 1971 and 1974.

In 1974, Brazil, Argentina, Colombia and Uruguay imported under 6 per cent of their domestic supply and they are therefore the countries with the highest level of agricultural self-sufficiency. At the other extreme, Cuba, Chile, Jamaica and Trinidad and Tobago are among the most dependent countries, which, to make up their internal supply of agricultural products, imported in 1974 32 per cent, 37 per cent, 45 per cent and 57 per cent respectively.

The agricultural trade balance in favour of the Latin American countries almost doubled between 1971 and 1974, rising from 5 thousand million to almost 10 thousand million dollars. This was due to higher sales by Argentina - whose trade surplus in 1974 represented 71 per cent of the Latin American total - Cuba and the Central American countries. (See table 9 of the annex.) Total agricultural exports rose from 7.3 thousand million to 15.4 thousand million dollars between 1971 and 1974, in which period agricultural imports rose from 2.4 thousand million to 5.7 thousand million dollars. The value of agricultural imports rose more quickly than that of exports. In 1971, purchases represented 31.8 per cent of sales; in 1974 this proportion rose to 37 per cent. Thus altogether the countries of the region have become more dependent, in agriculture, on the rest of the world, in international circumstances which should apparently have been favourable to Latin America.

The obstacles and restrictions which have adversely affected Latin American agricultural trade have given rise to uncertainty, instability and complaints on the parts of some governments. The imperfect competition which sometimes gives unfair advantages to particular countries and regions will continue to harm the interest of the Latin American economies, unless the present order of international relations is reformed both in substance and in form. Nevertheless, whatever development take

place in the world market - so long as new unilateral and discriminatory restrictions are not introduced - they will to some extent represent trade possibilities open to many of the countries of Latin America. These trade possibilities call for suitable and timely reactions, and the ability, in some cases, to take full advantage of the new situations created by the international economic situation. In other cases, the countries will have to create the conditions which will enable them to avoid or attenuate the direct and indirect negative effects such situations may have on the national economies. To waste this opportunity could be considered even more serious in view of the fact that the region's productive potential is insufficiently exploited, except in the case of a few countries, especially Brazil, and a number of products, particularly soya.

(c) The terms of trade of the Latin American agricultural sector

It was stated above that the most noteworthy feature of the recent development in international agricultural markets was the spectacular rise in prices which lasted until the end of 1974. This began to tail off after the last quarter of 1974, as may be seen from tables 11 and 12 of the annex. As has already been said, the change in the prices of agricultural products in the international markets in recent years might apparently have constituted a real advantage for the region as a whole. This assertion may easily be corroborated by valuing the volume of agricultural exports and imports of the countries of the region in 1971 at 1971, 1974 and 1975 prices successively, and then comparing the value received in that year with the hypothetical value which would have been received if similar volumes had been exported and imported in the other years (see table 2):

Table 2

LATIN AMERICA: VALUE OF AGRICULTURAL FOREIGN TRADE IN 1971,
AT 1971, 1974 AND 1975 PRICES a/
(Million dollars)

	Value of agricultural trade in 1971		
	At 1971 prices	At 1974 prices	At 1975 prices <u>b/</u>
Agricultural exports (FOB)	7 344	21 385	19 016
Agricultural imports (CIF)	2 388	5 399	5 710
Agricultural trade balance	5 006	15 986	13 306
Additional income		10 980	8 300

Source: Estimates of the ECLA/FAO Joint Agricultural Division on the basis of official data.

a/ Including regional trade.

b/ Calculated using international market prices corresponding to the average for the third quarter of 1975.

It may be seen that through the rise in international prices alone, Latin America would have obtained, with the same volumes of exports and imports, additional income of 10,980 million dollars in 1974 and 8,300 million dollars in 1975, compared with 1971. In both cases, and despite the lower price levels recorded in the third quarter of 1975, in comparison with 1974, (see tables 11 and 12) the additional income would represent, in absolute terms, an equivalent value greater than the value of agricultural imports; the conclusion may therefore be drawn that however great world inflation may have been - in other words, however import prices may in fact have behaved - the difference in the agricultural trade balance implies a surplus and thus a real contribution to improvement of the terms of trade. Naturally, if this kind of comparison were made for each country, it would show that the changes in international prices affect each one to a different degree, no doubt according to product structure and weight, both in imports and exports. Three further observations should be made in the interpretation of this comparison. First, it is probable that the change in agricultural input prices was not the same as that in the prices of the region's agricultural exports as a whole, so that to determine more exactly the real contribution of agriculture to the improvement of the terms of trade, it would be necessary to deduct the higher input values from the rise in the value of agricultural exports. Second, it should be borne in mind that one of the causes of the rise in prices was that the supply of agricultural products fell while demand was rising, and therefore if the international supply of such products had increased, unit prices would have fallen. Third, it should be pointed out that the calculations cover the region as a whole, and therefore include intra-regional exports and imports.

(d) Considerations on the trade of agricultural products in sub-regional integration schemes

Tables 13, 14 and 15 of the annex show the volumes of imports and exports by each country of the 9 main export products of the region in 1971, 1973 and 1974. On the basis of this information it is possible to calculate, both for the region as a whole and for each integration scheme, the net balance for each product which, from the intra-regional trade standpoint, would suppose that trade possibilities were exploited to the full. The trade possibilities for each product between two or more countries and for the integration schemes may be defined as the lower of the two following figures: (a) the exportable surplus, and (b) the deficit which must be made up with imports.^{6/} In other words, when the balance available for export in two or more countries is less than their import needs, it is considered that the exportable balance corresponds to the maximum potential for trade of the product in question. Inversely, when the exportable balance is greater than the import needs of the deficit country or countries, the latter amount is taken to be the trade potential.

The intra-regional trade potential estimates are obviously extreme limits which cannot always be attained in fact. This may be due, inter alia, to the fact that countries are not prepared to depend on a single source of supply; and also to trade agreements with third countries, on the part of Latin American exporters and

^{6/} For each product, the exportable surplus is equal to domestic production minus domestic consumption. The deficit which must be made up with imports is equal to domestic demand minus domestic production.

importers, and to problems stemming from the financing of external trade, the infrastructure to facilitate the seasonal movement of production in the different countries and hemispheres, etc. It should also be taken into account that as the regional integration processes progress, and the comparative advantage of the different countries can be exploited more fully, and thus greater specialization becomes possible, new trade possibilities will arise. (See tables 16 to 20 of the annex.)

To show the values which would have been obtained if the regional and sub-regional trade potential had been exploited, tables 16 to 20 of the annex also set forth the corresponding values of exports and imports of the 9 products given and their trade possibilities. It may be seen that in 1974 the latter could have reached, for the countries of the region as a whole, 1,625 million dollars, which is a little over 28 per cent of the region's total agricultural imports in that year. In the four sub-regional integration schemes, in 1974 that percentage was as follows: ALALC 32 per cent, Andean Pact 14 per cent, MCCA 9 per cent, CARICOM 6 per cent.

It is clear from the above that in the various integration schemes, intra-zonal agricultural trade would at best represent a relatively insignificant part of total agricultural trade. Intra-zonal trade, from the standpoint of origin and destination, is concentrated in a restricted range of products; and it may be seen that in this context of deficits and surpluses, tropical agricultural products in regional trade are predominantly from the geographical region itself, while an increasing part of the deficit in the supply of temperate products originates outside Latin America. Perhaps the only significant exception is that of exports of Argentine wheat to Brazil, which in 1973 reached an approximate value of 86 million dollars, which represents roughly a third of Brazilian wheat imports.

A number of factors contribute to the above situation, including seasonal variations in the harvests in determined zones, better financing of agricultural trade offered by third countries, such as subsidies and similar measures which favour regional inputs of this kind. Equally significant, in many cases is the search for equilibrium, through bilateral agreements, in the general trade balance of goods and services between a country of the region and a country outside the region.

Despite these limitations, regional agricultural trade in recent years has risen somewhat in volume and value, and has also become diversified to some extent. In ALALC, there were higher purchases of wheat, summer fruits, tea, cotton and some meats. In the MCCA countries, regional agricultural trade follows the ups and downs of integration policy and mirrors its problems; it consists chiefly of basic grains, livestock, fruits, vegetables and oilseeds, and, in prepared products, fats and oils, animal byproducts, tobacco products and vegetables and canned vegetables. Among the group of countries belonging to the Andean Pact, intra-regional agricultural trade is sporadic and seasonal, and there is also a large border trade in foodstuffs. Agricultural imports from outside the zone are much the greater, and there are few products traded exclusively within the region (rice, oilseeds, rope-making fibres). Among CARICOM countries, regional agricultural imports amount to a very small fraction of their total agricultural trade and are limited to a few products, since production is similar in almost all the countries of the area. They include primarily some fruits and vegetables.

It should also be pointed out that the development of regional agricultural trade in recent years is a consequence of the various bilateral undertakings and agreements entered into by Latin American countries. These include, in particular, the agreements between Uruguay and Brazil, Uruguay and Argentina, Chile and Argentina, Venezuela and Central America, Argentina and Mexico, Argentina and Paraguay, etc. There are also new forms of regional co-operation in carrying out large bi-national projects (roads, bridges, dams); and developments in the international economic situation, worsened by monetary, energy and trade problems, have led the countries of the region to adopt, almost from necessity, policies which meet common objectives, and to agree upon concerted action in various spheres of their external economies (negotiations) and even of their own production (industrial production and complementarity agreements).

In the past, integration agreements served as regional fora in which the processes to eliminate tariff barriers were initiated to stimulate the growth of regional trade, including that of agricultural producers. However, the negotiations carried out have contained many reservations concerning the possible adverse effects of the unrestricted liberation of trade upon the less developed agricultural sectors. Thus special safeguards have been included in the negotiations on some products, which in many cases have taken the form of very limited concessions.

The agricultural trade policies followed by the countries of the region since the replacement of the earlier bilateral agreements by the co-operation and integration treaties are shaped to some extent by the continuing great interest in import markets outside the region. That is why some measures have been taken to maintain and expand this trade, by promoting the adoption of measures to obtain better terms in prices and more guarantees for access of Latin American products to third countries. At the intra-regional level, there continues to be a basic trade of agricultural commodities between the countries with deficits and those with surpluses, based in most cases on grounds of complementarity and, to a lesser extent, competition. Furthermore, the State, through specialized bodies, participates in agricultural trade either exclusively or together with the private sector. This gives rise to trade agreements on certain products which are included in broader agreements entered into by different countries.

II. AGRICULTURAL PRODUCTION TRENDS

1. Latin America's agricultural production in the present world situation

The region's agricultural production cannot be analysed here without taking into account the most important aspects of the recent agricultural and food situation in the world context. In the current decade, particularly since 1972, there have been changes, sometimes of a spectacular nature, in the markets of both agricultural commodities and inputs for agriculture. These changes have either favourably or adversely affected agricultural development in the developed and developing countries, and their repercussions have made themselves felt in almost all areas of agriculture.

As a result of the poor harvests in 1972, the indexes of world agricultural production (total and per capita) dropped for the first time in more than 10 years (see table 3). The subsequent trend in production, particularly in the more densely populated regions, combined with a rapid acceleration of demand for imports in 1973 and early 1974, was responsible for a sharply rising trend in agricultural commodity prices on the world markets (see figures 2 and 3).

Table 3

INDEXES OF TOTAL AND PER CAPITA WORLD AGRICULTURAL PRODUCTION (1961-1965 = 100)

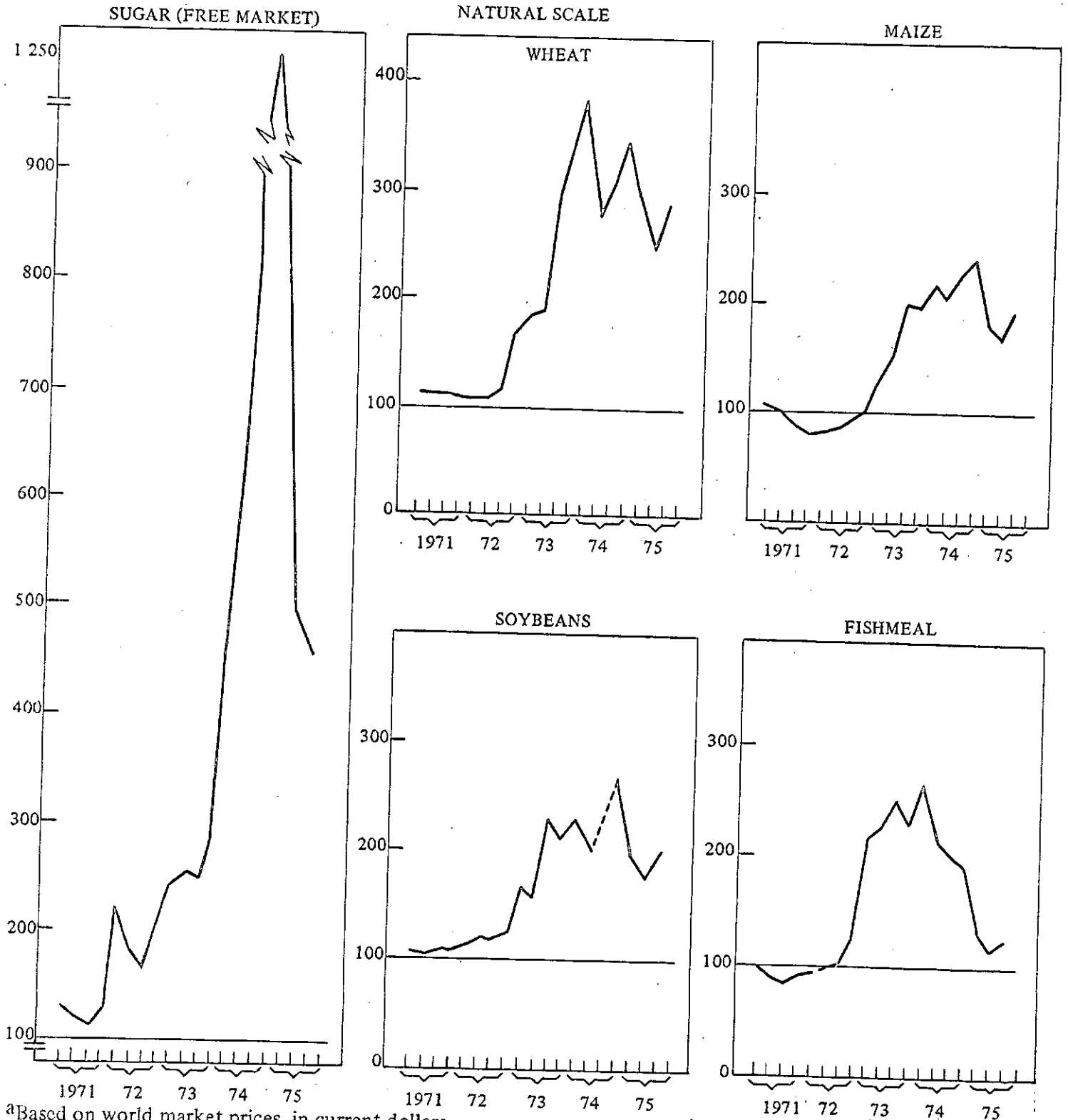
	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Total agricultural production	105	109	113	116	117	120	125	124	130	131
Per capita agricultural production	101	103	105	106	105	106	108	105	108	107

Source: FAO, Production Yearbook, 1974, vol. 28.1, Rome, 1975.

In the course of those years the stocks of exporting countries became relatively depleted, thus creating a general climate of insecurity since world food supplies came to depend heavily on the results of the next harvest and on weather conditions (see table 4).

Figure 2
PRICE INDICES^a OF THE MAIN PRODUCTS EXPORTED BY LATIN AMERICA^b
(1970 = 100)

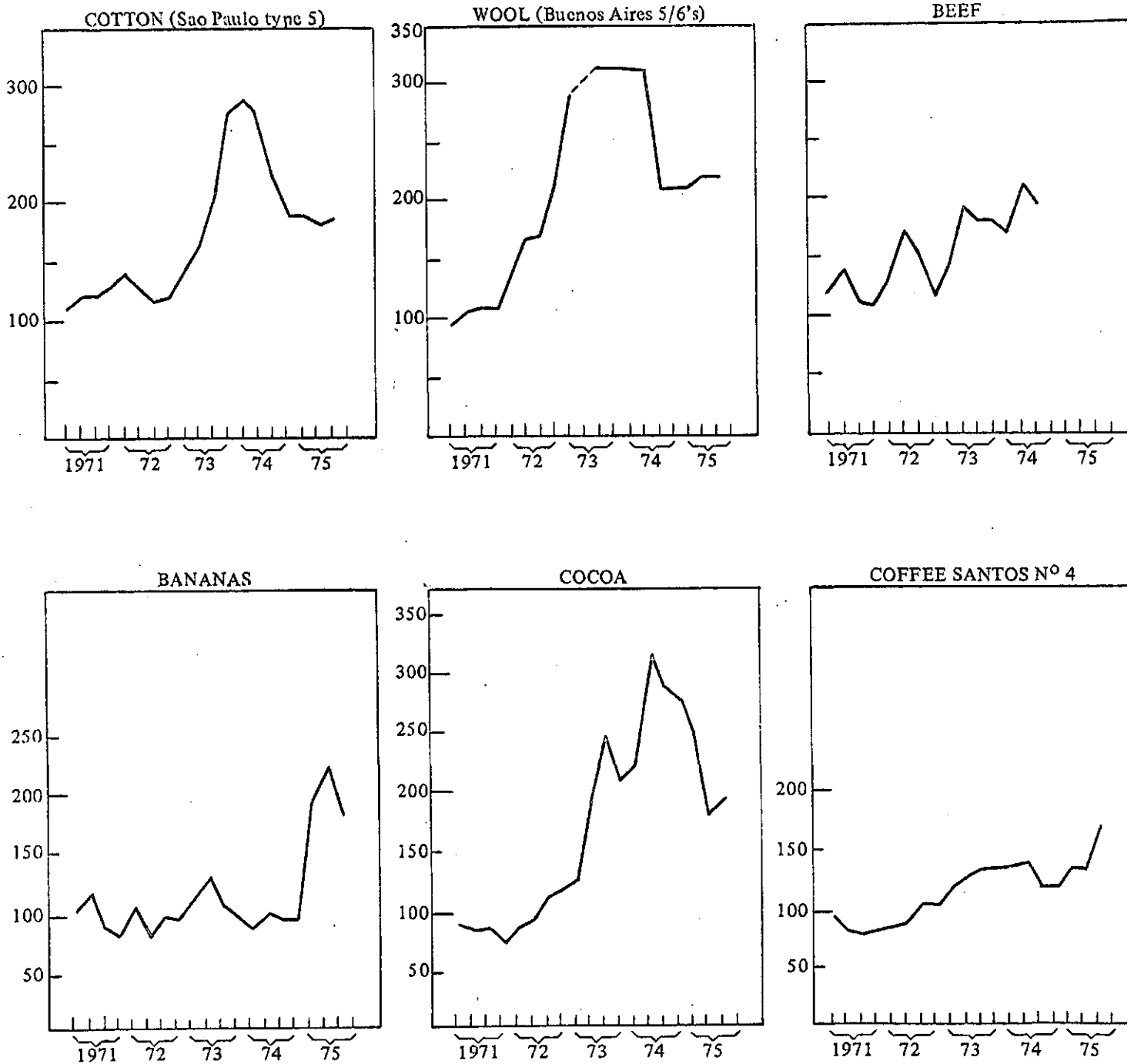
QUARTERLY AVERAGES



^aBased on world market prices, in current dollars.

^bIncludes Barbados, Guyana, Jamaica and Trinidad and Tobago.

Figure 3
PRICE INDICES^a OF THE MAIN PRODUCTS EXPORTED BY LATIN AMERICA^b
(1970 = 100)
QUARTERLY AVERAGES
NATURAL SCALE



^aBased on world market prices, in current dollars.

^bIncludes Barbados, Guyana, Jamaica and Trinidad and Tobago.

Table 4

TRENDS IN RESERVES OF SELECTED AGRICULTURAL COMMODITIES
(Millions of tons)

Commodity	Volume of reserves				
	1970	1971	1972	1973	1974
Wheat	50.2	48.8	29.0	25.8	23.1
Secondary cereals	38.6	54.1	38.8	28.2	20.7
Rice	37.5	36.0	31.5	19.5	21.0
Sugar	21.4	19.1	17.0	15.7	15.9

Source: FAO, Commodity Review and Outlook, 1974-1975, Rome, September 1975.

By the middle of 1975 the position with regard to stocks was showing some signs of improvement (in spite of the fact that the estimates for Eastern Europe and the Soviet Union were lower than the original forecast), mainly owing to the recovery of production, especially in the developed countries. Nevertheless, the world supply of cereals continues to be a source of concern, since stocks have remained at minimal levels. The livestock position up to the third quarter of 1975 was still imbalanced, since although beef production was rising, world demand remained weak because, among other factors, of the economic recession in the industrialized countries.

World market prices reached their highest level in mid-1974. Subsequently, the trend was reversed and prices declined, although those of some commodities did not return to the original 1972 levels.

The increase in agricultural commodity prices in 1972-1974 was due, on the one hand, to the huge shortfalls in agricultural production in the major producer and consumer countries and, on the other hand, to the accelerated growth of demand for imports, particularly for normal consumption, although also partly for speculation purposes. This growth was mainly attributable to the decline in domestic supply, and in part to the exceptionally rapid increase in economic activity in nearly all the industrialized countries, which in 1973 recorded the highest rates of growth since the mid-1950s.

This brief boom in prices has therefore been closely linked with the changes experienced in the world economy. "The recent marked instability has much more far-reaching projections than that occurring in other periods, however, because price movements have been in the same direction simultaneously for a fair number of products... and because the present phase of declining prices of primary products is aggravated by the economic recession affecting the developed countries, while at the same time the rise in the prices of manufactures imported from those countries is gaining renewed impetus."^{7/}

^{7/} ECIA, Information note on recent trends in some primary commodity markets, (E/CEPAL/L.122).

The economic recession in the industrialized countries is adversely affecting the developing countries. "Latest estimates forecast a 2 per cent decline in the GDP of the OECD countries, and a 10 per cent decline in world trade in 1975... This has led to simultaneous declines in import demand for raw materials exported by developing countries while prices of manufactured goods have continued to rise."^{8/}

Concurrently with the rise in agricultural prices, there was a general increase in production costs. The higher prices of energy and petroleum products, the exceptionally high prices of fertilizers, and the steady rise in the prices of manufactured goods, such as agricultural machinery and equipment, from industrialized countries have determined the recent performance of world and Latin American agriculture. The passing stimulus provided by the high prices of some commodities contrasts with the consistently high and even steadily increasing prices of some agricultural inputs and production costs.

The prices of fertilizers began to decline in the international markets as from February 1975 (see figure 3), the supply position was eased and the climate of alarm prevailing in 1973 and 1974 disappeared. More information on the subject is contained in chapter III.

This period characterized by high prices and a rapid growth of world demand for imports of agricultural commodities has been taken as the context for examining the evolution of the region's agricultural production, which is described in detail in the following sections. An attempt has been made to establish, at the national, sub-regional and Latin American level and in a cross-analysis by products or groups of products, the type of responses generated by the conditions referred to above.

2. Overall evolution of Latin America's agricultural production in recent years

The outstanding feature of the recent evolution of agricultural production is the extent to which the results of the successive harvests have varied. The annual changes in the volume of regional production have been very marked.^{9/} The average growth rate of 3.1 per cent annually for the period 1971-1974 conceals rates ranging from a modest 0.5 per cent in 1972 - Latin America's worst agricultural year for a very long time - to a notable 6.2 per cent registered in 1974 (see table 5).

^{8/} FAO, The State of Food and Agriculture, 1975 (C.75/2), September 1975.

^{9/} The volume of agricultural production was calculated on the basis of constant prices corresponding to regional averages obtained by weighting the national prices by the national production of each commodity in the base year 1970.

Table 5

LATIN AMERICA: CHANGES IN THE VOLUME OF PRODUCTION OF THE
CROPS AND LIVESTOCK SUB-SECTORS
(Percentage annual variations)

Year	1971	1972	1973	1974	1971-1974 a/
Crops sub-sector	4.8	-1.6	0.8	8.4	3.1
Livestock sub-sector	3.1	4.1	2.3	2.8	3.1
Agricultural sector	4.3	0.5	1.5	6.2	3.1

Source: Estimates of the Joint ECLA/FAO Agriculture Division.

a/ Simple average of annual rates.

For the reasons given in the introduction, it is especially interesting to analyse carefully the significance of the marked growth (6.2 per cent) recorded in 1974. Does it indicate a relative normalization of productive activity following two years of poor harvests, or was it the result of an effective response from regional agriculture to the particular conditions prevailing on the international markets? In trying to answer this question it has been necessary to examine the agricultural years prior to 1974 and obtain some information about 1975 with the object of estimating whether the previous year's considerable production increase has been maintained. As regards 1975, at the time of completing this report, the only data available were on crops, as noted in the following pages. An attempt is made to give explanatory approximations, from different viewpoints, of the evolution of crop and livestock production, while the changes in agricultural production at the national and sub-regional level and in that of the various integration systems are analysed with a view to clearer understanding of the recent development of Latin American agriculture.

The separate analyses of the crop and the livestock sectors permits a first approach to more specific explanations of the evolution of agricultural production in Latin America. The different types of crops and of livestock production, the mobility of the resources absorbed by each sector, the time required to complete the production periods or cycles and the degree of dependence on certain atmospheric phenomena give each sub-sector a differing degree of flexibility and variability. All this contributes to a more regular performance of livestock production, and also influences the degree and capacity of adaptation of both sub-sectors to the changes occurring in the internal and external markets. In theory, it is easier for producers - except subsistence farmers - to adapt their short-term plans for the cultivation of crops, especially those having a short growth cycle, than for the livestock sector, particularly in the case of cattle.

The development of livestock production seems to have been fairly regular in the last few years. The average growth in 1971-1974 was 3.1 per cent annually, with a maximum rate of 4.1 per cent in 1972 and a minimum rate of 2.3 per cent in 1973. The crop sub-sector, however, which shows an average growth of 3.1 per cent annually, or the same as that for livestock production, recorded rates ranging from a decrease of 1.6 per cent in 1972 to an unprecedented growth of 8.4 per cent in 1974 (see table 5). In view of the disparity in the performance of these two sub-sectors, it may be affirmed that the pronounced changes in the annual growth rates for agriculture recorded in recent years are largely attributable to the evolution of crops, and also that the large increase in Latin America's agricultural production in 1974 is accounted for by the excellent harvests obtained that year.

Within the structure of Latin American agriculture - in terms of volume - in 1974 crops represented 61 per cent and livestock the remaining 39 per cent. Consequently, the marked changes in crop production have considerably affected the final result of the agricultural sector in each agricultural year.

3. Development of the crop sub-sector

With the aim of presenting a general view of developments in connexion with Latin American crops as a whole, a brief account is given of the development of the different groups in which they are traditionally classified (cereals, pulses, vegetables, fruits, etc.), followed by a detailed review of the performance of the most important crops in each group according to their contribution to the region's total volume of production.

Since data on nearly all the 1975 harvests had already been collected when this report was being prepared, preliminary estimates are included for that year, although there are likely to be some fairly important corrections when the national statistics are published.

(a) The largest crop groups

Figure 4 shows what has happened to the various crop groups. The spectacular increase in production of oilseeds, particularly soybeans, is immediately apparent: the annual growth rate for the group has been over 10 per cent since 1972. (See table 6.)

There has also been sustained, though moderate growth of cereals and sugar crops. In the former, the increase follows after a year of bad harvests, 1972. Something similar occurs in the group of sugar crops, after the drop in production of 1971.

Mention should also be made of the irregular behaviour of pulses and fruits, although large increases between years occurred in both groups. Fourth, there has been stagnation, - and even a drop in the last two years - in roots and tubers, chiefly cassava and potatoes, both of which are very important starchy products in the diet of a vast section of the Latin American population. Finally, it is interesting to note that behaviour of production of vegetables, fibres, the figure of which shows similarities with the variations in international market prices, particularly those of cotton. (See again figure 3.) After an upswing in the production cycle as of 1972, the drop in prices in 1974 caused a sharp contraction of production in 1975.

Table 6
 LATIN AMERICA: CHANGES IN THE PHYSICAL VOLUME OF PRODUCTION, BY CROP GROUP
 (Annual percentages)

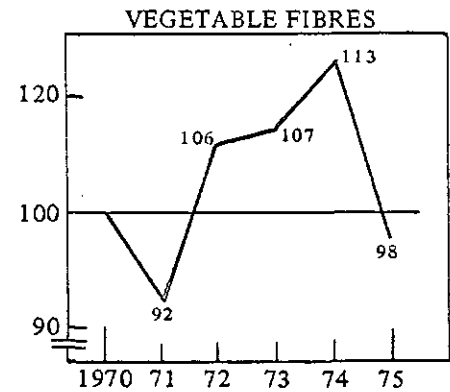
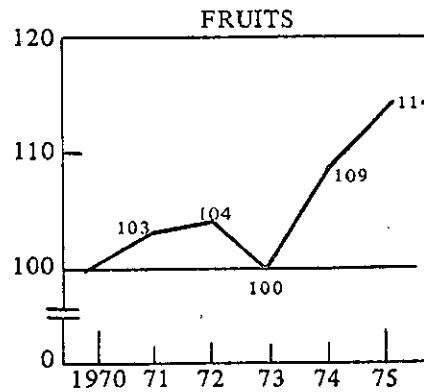
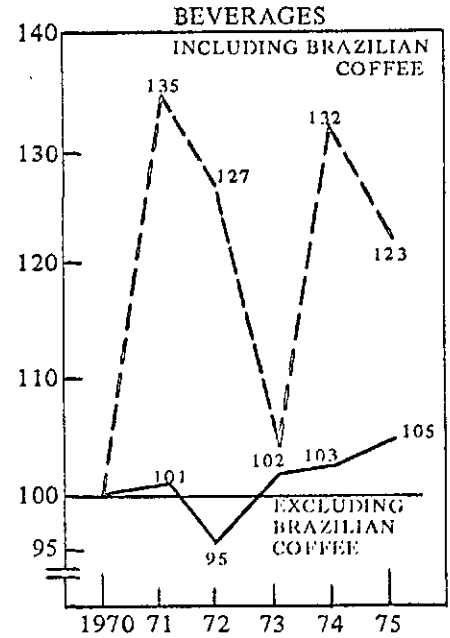
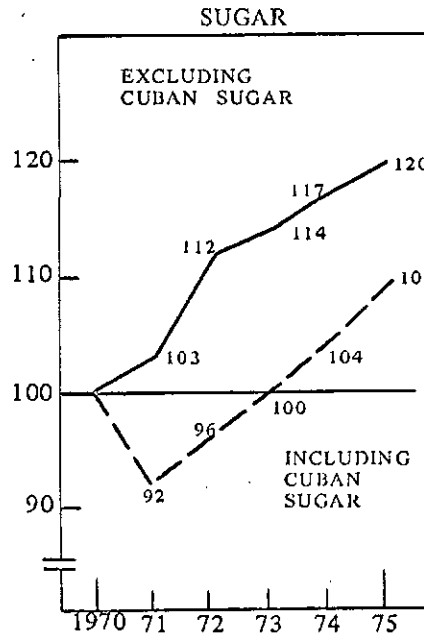
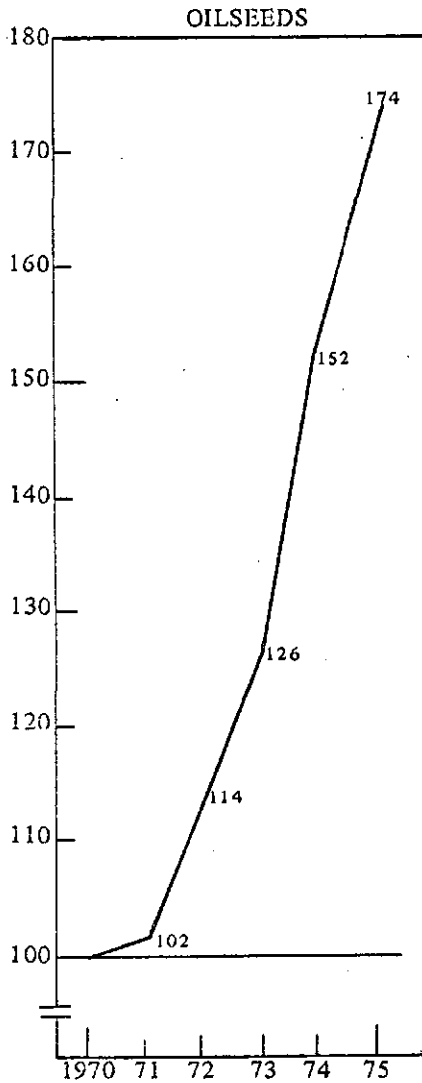
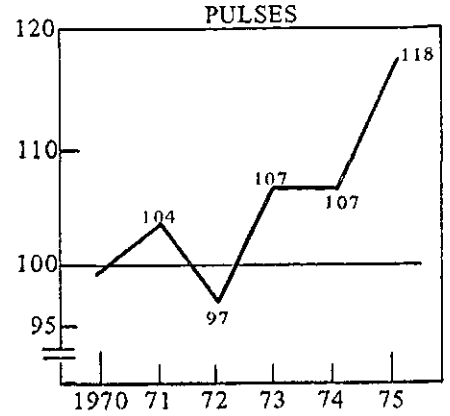
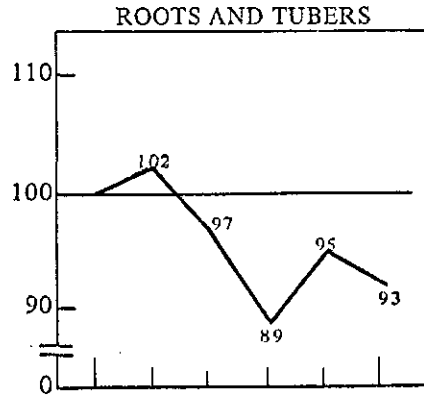
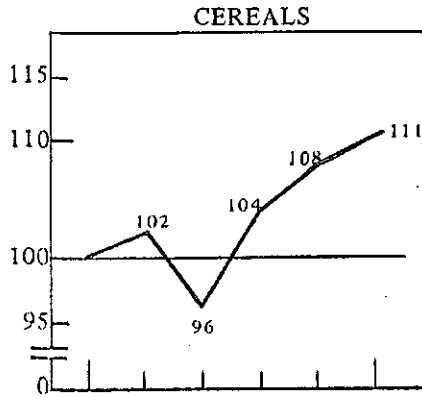
	Share of each group in the total phys- ical volume of crops in 1974	1971	1972	1973	1974	1975	1971- 1975 _{a/}
Cereals	29.7	1.9	-5.5	7.5	4.1	3.6	2.3
Roots and tubers	7.4	1.7	-4.9	-8.4	7.0	-2.0	-1.3
Pulses	4.6	4.3	-6.2	10.2	-0.1	10.4	3.7
Vegetables	4.1	4.0	2.4	5.7	0.9	3.0	3.2
Oilseeds	7.2	2.0	11.7	11.0	20.4	14.4	11.9
Sugar	12.5	-8.0	4.3	4.7	3.6	4.5	1.8
Fruits	14.5	5.5	-0.7	-1.3	10.0	4.9	3.7
Beverages and tobacco	13.5	35.2	-5.9	-17.3	25.5	-7.0	6.1
Vegetable fibres	6.5	-8.2	15.5	1.2	5.8	-13.4	0.2
<u>Total crops</u>	<u>100.0</u>	<u>4.8</u>	<u>-1.6</u>	<u>0.8</u>	<u>8.4</u>	<u>2.0</u>	<u>2.9</u>
<u>Total excluding coffee</u>	-	<u>1.0</u>	<u>-0.8</u>	<u>3.5</u>	<u>5.8</u>	<u>3.5</u>	<u>2.6</u>

Source: ECLA/FAO Joint Agricultural Division estimates.

a/ Simple average of annual rates.

Figure 4
LATIN AMERICA: INDICES OF VOLUME OF PRODUCTION BY CROP GROUP
(1970 = 100)

NATURAL SCALE



The beverage crop group 10/ shows very severe annual fluctuations: rates of growth of 35.2 per cent in 1971 and 25.5 per cent in 1974, and of -17.9 per cent in 1973 and -7 per cent in 1975. These very marked annual variations are largely explained by the fluctuations in the coffee harvest in Brazil (which reflect the effects of natural phenomena such as frost or the loss caused by soya) and therefore, as may be seen in figure 4, if coffee is excluded from the beverage crop group, the fluctuations become significantly smaller. What is most significant, however, in view of the importance of coffee production - between 9 and 10 per cent of the physical volume of total crop production - is that the coffee harvest noticeably affects the direction of the swings in total Latin American production. (See again table 6.) If, therefore coffee is excluded from the calculation of the physical volume of crop production, the rates of growth of the sub-sector change considerably. Thus, for example, without coffee the 4.8 per cent rise for 1971 barely reaches 1 per cent; the 0.8 per cent for 1973 rises to 3.5 per cent; and of particular interest to this study, the steep rate of growth of 8.4 per cent in 1974 drops to 5.8 per cent, which remains very high in comparison with previous years.

From the information available on the 1975 harvest, which cannot yet be considered definitive, it may be estimated that growth in crop production - which, as was pointed out above, represents over 60 per cent of the total volume of agricultural production - can only be in the order of 2.2 per cent, mainly because of the reduction in cotton growing areas and the bad harvests of coffee in Brazil and of maize and sorghum in Argentina. These four crops represent almost one-third of the crop total. Therefore, assuming that the livestock sub-sector grew at the same rate as in 1974, the growth in agricultural production in 1975 would scarcely exceed 2.7 per cent; which would be a slightly lower rate than the average for 1971-1974.

However, if coffee and cotton are excluded, the rise in crop production in 1975 would continue, since the increase would be 4.9 per cent instead of 2.2 per cent, owing to the fact that cereal cultivation has continued to rise, the wheat harvest is thought to have been exceptional and large increases are expected in banana production.

(b) Most important crops within each group

Because of the variety of natural conditions in Latin America, the number of vegetable species cultivated in it is very large. However, a few crops (only 11) predominate; in 1974 they represented about 75 per cent of the production of the crop sub-sector at the regional level, and their shares in that year were as follows:

- cereals: maize 13.6 per cent, rice 6.5 per cent, wheat 5.6 per cent;
- roots and tubers: cassava 3.2 per cent, potatoes 3.1 per cent;
- pulses: beans 3.6 per cent;
- oilseeds: soya 11/ 3.9 per cent;
- sugar: sugarcane 12.2 per cent;

10/ Coffee, cocoa, tea, mate herbs.

11/ Soya is also a protein-rich legume, but because of its oil content it is classified as an oilseed for the purposes of this report.

- fruits: banana 7.2 per cent;
- beverages: coffee 10.2 per cent;
- vegetable fibres: cotton 5.4 per cent;
- others: 25.5 per cent.

In order of importance by volume, maize, sugarcane and coffee are the three main crops of the region. The relative position of each of the ten most important crops might be different if they were measured by value at prices to the producer in 1973 or 1974. The effect of the marked changes in the relative prices of agricultural products would then be reflected.

(i) Three cereals - maize, rice and wheat - are among the eleven main crops of the region and account for 29.7 per cent of the total volume of crop production. Cereal production shows clear signs of growth at the regional level. The harvest has risen from 70.4 million metric tons in 1970 to 76.5 in 1974 and might attain almost 80 million metric tons in 1975, according to available information (see table 7).

Table 7

LATIN AMERICA: ANNUAL CEREAL HARVEST, 1969-1975

(Millions of metric tons)

	1969	1970	1971	1972	1973	1974	1975 <u>a/</u>
Wheat	12.4	11.0	11.8	12.3	11.1	13.1	15.4
Rice	10.2	11.6	10.8	10.8	11.6	11.8	12.5
Maize	33.2	38.1	39.1	35.2	37.5	38.9	40.0
Oats	0.6	0.6	0.7	0.8	0.8	0.6	0.9
Barley	1.3	1.2	1.4	1.8	1.6	1.3	1.7
Rye	0.4	0.2	0.3	0.7	0.7	0.4	0.7
Millet	0.4	0.4	0.4	0.3	0.5	0.5	0.4
Sorghum	5.6	7.4	8.0	5.6	8.6	10.1	8.5
<u>Total</u>	<u>64.1</u>	<u>70.5</u>	<u>72.5</u>	<u>67.5</u>	<u>72.4</u>	<u>76.7</u>	<u>80.1</u>

Source: Estimates of the ECLA/FAO Joint Agricultural Division, on the basis of FAO, Production Yearbook, 1974, op. cit. and FAO unpublished figures.

a/ Estimates.

Of the cereals for human consumption, the greatest growth in the harvest for 1974 was wheat (8.0 per cent), basically because of the large increases in Mexican (32.0 per cent) and Brazilian (39.0 per cent) production of wheat, stimulated by official policies for that purpose. Wheat production in Argentina, the main producer country of the region, fell for climatic reasons from 6.6 million metric tons in 1973 to 5.6 in 1974. In 1975, according to available information, the biggest harvest recorded in the region has been achieved, with 15.4 million metric tons (an increase of 14.5 per cent), because of further increases in the Mexican harvest (8.5 per cent) and an excellent harvest in Argentina (29.0 per cent). If the forecast for Brazil had been confirmed, and the harvest had not been affected by the July frosts and the October rains, production might have exceeded 16 million metric tons. It may therefore be said that the region has responded favourably to the higher wheat prices in world markets, and that this response might have been greater still were it not for adverse meteorological conditions. (See again figure 3.)

The secondary cereal which has shown the greatest increases in the volume of production has been sorghum. In 1974, sorghum production exceeded 10 million metric tons (17.4 per cent) owing to the excellent harvest in Argentina. In 1975, the drought which affected the Mexican harvest, and the decline in the area cultivated and the frequent rains which delayed the Argentinian harvest, resulted in a production drop to 1973 levels. (See table 7 and figure 5.)

The maize crop, which makes the biggest contribution to the physical volume of crop production in the region, has not grown significantly (see again table 7 and figure 5), but great changes have taken place in the location of the harvest. In 1974, for example, production in Mexico and Central America fell by about two million tons, while in Brazil there was a good harvest, roughly two million tons larger than in the previous year.

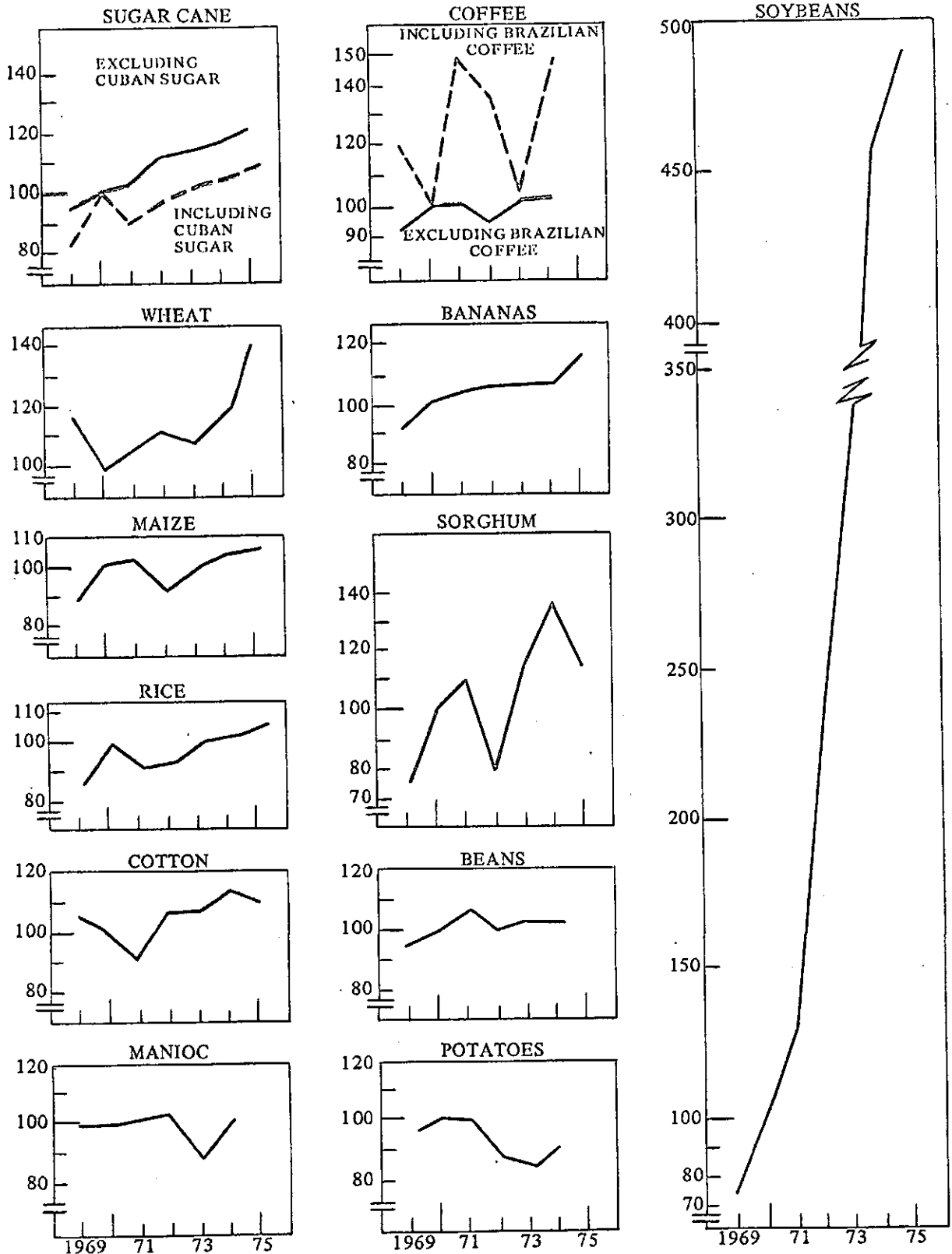
In the 1975 harvest Brazil again increased its production by roughly another two million metric tons, but harvests in Argentina were seriously damaged by rains during ripening and harvesting, while Mexico and Central America returned to their normal production levels. Thus Brazil is the only country where production increased considerably in 1974 and 1975, and in 1975 it alone accounted for 45 per cent of total maize production in the region (which would have been 36 per cent of the 1971 harvest).

Although rice prices quadrupled between 1972 and 1974, and were double the 1972 level in 1975, regional rice production only varied very slightly between 1970 and 1974. It is estimated that the 1975 harvest may be somewhat larger than previous previous harvests. (See again table 7.)

To summarize the cereal picture, in 1974 there were increases worthy of mention only in wheat and sorghum. The rises in maize production in some countries were wiped out by the smaller harvests in others. Rice production did not vary significantly.

(ii) Two products in the starchy roots and tubers group, potatoes and cassava, are among the eleven most important crops in the region. Both cassava and potatoes are a frequent element in the diet of large parts of the low-income population in some countries. Cassava is eaten widely in the countries with warm wet geographical zones, and potatoes are an important part of diets in almost all Latin American countries.

Figure 5
LATIN AMERICA: VOLUME INDICES OF PRODUCTION OF THE TWELVE MAIN CROPS^a
(1970 = 100)
NATURAL SCALE



^a1975 indices are forecasts and estimates.

Table 8

LATIN AMERICA: POTATO AND CASSAVA PRODUCTION
(Millions of metric tons)

	1970	1971	1972	1973	1974	1975 a/
Potatoes	9.7	9.7	8.6	8.3	8.8	8.8
Cassava	34.9	35.8	36.1	31.4	34.8	35.0

Source: Same as table 7.

a/ Estimates.

It may be seen that production of both crops is somewhat stagnant. This is perhaps due to the type of producers who cultivate these crops, mostly subsistence farmers or small commercial producers, whose harvests are mainly intended for domestic consumption. These two reasons may explain the relative stability of production levels.

The revival of Brazilian cassava production in 1974 signified a 10 per cent rise in regional cassava production, which contributed in a very limited way to the high rate of growth of crop production, since cassava alone accounted for 3.2 per cent of the total physical volume of production.

(iii) Another crop group intended basically for domestic markets and with a high food value because of its protein content is the pulse group. Soya has not been included in this group, although it is also a protein-rich legume, because it is usually classed in the oilseed group because of its high oil content. As with cassava and potatoes, the production of beans - a product which represents 85 per cent of the total pulse harvest - has hardly varied between 1970 and 1974; the annual harvest is steady at about 3.8 or 3.9 million metric tons, a level which has been maintained for a decade. It is estimated that in 1975 harvests have increased in Mexico and Brazil. (See table 9.)

(iv) With regard to the oilseeds group, the most important event has been the spectacular rise in soybean cultivation. (See table 10.) This crop was introduced commercially into the region two decades ago, and soybean production was 233,000 metric tons in 1960, 667,000 metric tons in 1965, 1.9 million in 1970, and is estimated at approximately 10.8 million metric tons in 1975; in other words, it will have quintupled since 1970. Thus soya, which in 1970 represented only 18 per cent of the total volume of oilseeds production, will exceed 60 per cent in 1975.

Table 9

LATIN AMERICA: PULSE PRODUCTION a/
(Million of metric tons)

	1970	1971	1972	1973	1974	1975 <u>b/</u>
Beans	3.77	3.99	3.78	3.86	3.83	4.30
Other legumes	0.58	0.56	0.48	0.76	0.78	0.81
<u>Total</u>	<u>4.35</u>	<u>4.55</u>	<u>4.26</u>	<u>4.62</u>	<u>4.61</u>	<u>5.11</u>

Source: Same as table 7.

a/ Peas, beans, chick-peas, lentils, broad beans, pigeon peas and others.

b/ Estimates.

Table 10

LATIN AMERICA: SOYBEAN PRODUCTION
(Millions of metric tons of beans)

	1965	1970	1971	1972	1973	1974	1975 <u>a/</u>
Brazil	0.6	1.5	2.0	3.7	5.0	7.5	9.6
Total Latin America	0.7	1.9	2.4	4.3	5.9	8.7	10.8

Source: Same as table 7.

a/ Estimates.

The development of soybean cultivation was initially aimed primarily at domestic markets, particularly for the oil, since a relatively large part of the cake and meal was exported, as with the other oilseeds. Between 1969 and 1971 soybean exports stood only at between 200,000 and 300,000 tons; exports of soybean cake and meal stood at 318,000 metric tons in 1969 and reached 904,000 metric tons in 1971. In both cases over 90 per cent of exports were from Brazil. The volume of soybean exports in 1974 was more than 10 times higher than in 1971 - 2.8 million metric tons - and that of cake and meal doubled, reaching 2.1 million metric tons.

The soybean outlook was particularly favourable as of the middle of 1972. The growing demand for protein-rich oilseed cake and meal, intended for fodder, caused sharp price rises. On the supply side, this tendency was due to the near disappearance of fishmeal from the international market, reduced supplies of soya from the United States and the relative shortage of other oilseed cakes. On the demand side, the basic factors were the appearance of the Soviet Union as an importer of soya and the increase in the head of livestock in the herds of a number of industrialized countries which import fodder. Furthermore, the high prices

quoted for secondary cereals in the international market helped to maintain the high price of oilseed cakes.

Prices both of cakes and oils remained high during 1973 and most of 1974, reaching a peak in October of that year; since then, by February 1975 oil prices fell by almost 50 per cent and cake prices by 35 per cent. A fundamental factor in the outlook for demand will be the evolution of import demand and of consumption of oilseed fats, oils and meals, particularly in North America, Western Europe and Japan. While it is to be expected that the recent fall in the price of oilseed oils and meals will give a new stimulus to demand (with a certain lag), inflation and recession, if they continue, may counteract this trend.^{12/} Another important factor is the uncertainty about the import needs in protein or oils of the USSR and China. The increase in soybean cultivation was basically in Argentina, Brazil, Colombia, Mexico and Paraguay. Brazilian production represented almost 90 per cent of the Latin American harvest.

The recent expansion of production was possible because of favourable market conditions and the acquisition of experience in production over more than 10 years in the producer countries, particularly Brazil and Argentina; and because of the availability of companies and technology in the modern producer countries, and of State support which favoured the exploitation of the new prospects in foreign markets. In addition, in Brazil the ready availability of land was a decisive factor. The commercial experience acquired by that country with other agricultural commodities enabled it to market its product very actively and dynamically on the international markets, despite the falling price trends in the first half of 1975.

The rise in soybean production is partly responsible for the fact that the volume of Latin American crop production grew by 8.4 per cent in 1974. If soybeans are excluded from the total, crops rose by only 6.9 per cent and, as was pointed out above, if coffee - the harvest of which picked up in 1974 - is excluded too, the rate would only have been 4.5 per cent.

(v) Sugarcane production has grown moderately. The Central American countries with the exception of Honduras, have made some progress in sugarcane production. In South America, among the countries which have most increased their production are Argentina, whose sugar harvest almost doubled between 1970 and 1974, and Brazil, which is following a well-defined policy to expand sugarcane production, with a slight increase in the cultivated area and more emphasis on introducing modern production technology and increasing yields. This has enabled it to raise its sugar harvest from 79.8 million metric tons in 1970 to 105 million in 1975. In the Caribbean, production fell drastically in 1971 and 1972 because of the drop in the Cuban harvest, which revived slightly in 1973 and 1974. Since 1971 Mexico has maintained a production level of about 36.5 million metric tons, with possibly a small increase in 1975 (37.2 million).

^{12/} FAO, Intergovernmental Group on Oilseeds, Oil and Fats, Report of the Ninth Meeting, Rome, April 1975.

If the impact of events in Cuban sugar production upon the regional total are excluded, there is a moderate rise in production estimated at 3.9 per cent between 1971 and 1975. (See table 11.) Despite the rise in production costs, high international prices led to higher income for producers and aroused new interest in the development and improvement of sugarcane cultivation. This has not yet led to a larger volume of production because of the waiting period for investments in this type of crop to mature. Because of the short duration of the price boom (see again figure 2) and the sharp drop in 1975, it is possible that some investment may have been cut back while in its initial phase. The 1974 sugar harvest did not contribute significantly to the growth in the physical volume of regional crop production, since it only grew by 3.3 per cent.

Table 11

LATIN AMERICA: SUGARCANE PRODUCTION
(Millions of metric tons of sugarcane)

	1970	1971	1972	1973	1974	1975 a/
Latin America	280.6	258.0	270.0	283.5	292.8	301.9
Latin America without Cuba	199.7	205.1	224.4	228.5	232.8	246.9

Source: Same as table 7.

a/ Estimates.

(vi) In the fruits group, there were some increases in the production of citrus fruits, apples and grapes in the years 1973 and 1974. The most important fruit product continues to be the banana, the production of which at the regional level has been growing very slowly, remaining practically stagnant in 1973 and 1974. The following figures show banana production in Latin America and its main exporter countries (Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Nicaragua and Panama) in millions of metric tons.

	1970	1971	1972	1973	1974
Main exporter countries	12.0	12.3	12.2	12.3	11.8
Total Latin America	22.7	23.5	23.8	23.9	24.0

Overall production of the banana-exporting countries has remained steady at about 12 million metric tons, with a slight fall in 1974 because of difficulties in international markets, low world prices in real terms, the rise in production costs and atmospheric factors which affected some Central American countries, particularly Honduras.

There have been some increases, particularly in Brazilian production, which passed from 6.4 million metric tons in 1970 to 7.5 million in 1974. Argentina and Bolivia have stimulated banana production and achieved significant increases. Production in Mexico, which is also oriented towards the domestic market, has remained practically stationary.

(vii) In the group of beverage crops, coffee, the most important of them, has behaved very irregularly because of the great influence of climate on harvests. Thus, for example, the 1972 frosts in Brazil almost halved the coffee harvest of 1973 (see table 12). The good conditions which prevailed in 1973-1974 led to the excellent harvest of 1974, the best since 1966. It is estimated that the July frosts, which partially damaged the 1975 harvest, will lead to a 25 per cent fall in Brazilian production for that year. (See again table 12.)

Table 12

LATIN AMERICA: COFFEE PRODUCTION
(Millions of metric tons)

	1970	1971	1972	1973	1974	1975 a/
Latin America excluding Brazil	1.43	1.44	1.38	1.46	1.48	1.56
Brazil	0.76	1.80	1.60	0.87	1.62	1.20
Total Latin America	2.19	3.24	2.98	2.33	3.10	2.76

Source: Same as table 7.

a/ Estimates.

As was pointed out above, the high rate of growth of the physical volume of crop production at the regional level in 1974 is partly due to the revival of coffee production and the excellent coffee harvest of that year.

(viii) In the natural fibres group, in 1974, for the first time in several years, cotton production rose in the region by 5.7 per cent, no doubt in response to the improvement in the prices of cotton lint and of cotton seed used to produce oil. In Central America, unlike events in the rest of the region, cotton production was expanding as of 1970, with an increment of over 13 per cent in 1974. (See table 13.) Mexico stimulated its cotton production in view of the rise in world prices, and in 1974 obtained a harvest 20 per cent larger than in 1973. In South America, Argentina, Bolivia, Colombia and Peru strengthened cotton cultivation in 1973 and 1974, after many years of relative stagnation because of the depressed nature of the international markets from the 60s until 1972. In Brazil, cotton production fell in 1973 and 1974, since other more profitable crops displaced cotton cultivation in the southern states; however, the cultivated area and production in the North of the country increased.

Table 13
 LATIN AMERICA: PRODUCTION OF UNGINNED COTTON
 (Millions of metric tons)

	1970	1971	1972	1973	1974	1975 a/
Central America	0.48	0.59	0.72	0.81	0.94	1.05
Total Latin America	4.48	4.05	4.76	4.79	5.06	4.34

Source: Same as table 7.

a/ Estimates.

The fall in prices during 1974 and the rise in production inputs and costs may mean that in 1975 there was a sharp contraction of production, perhaps in the nature of -14 per cent.

4. Trends in the livestock sub-sector

In the livestock sub-sector significant changes have occurred in recent years, which cannot be clearly seen from a study of the changes in the physical volume of production. This shows a fairly stable performance from year to year if the basis of the analysis is changes in stocks, that is to say, variations in the number of head in the cattle herds, in addition to the number of cattle slaughtered or exported on the hoof.

For example, it could be said that regional livestock production fell in 1971 if account is taken only of the number of cattle culled from the herds, but if the figure includes changes which have taken place in stocks the rate instead of being negative would show an increase of 3.1 per cent. For this reason it is indispensable to carry out a more detailed analysis of national herds and of the conditions which shed light to some degree on their performance. But before this, in order to have a complete picture of the situation in Latin America, attention must be given to the relative weight of each group in the physical volume of livestock production, which in 1974 showed the structure outlined in table 14.

The main contribution is made by cattle, which provides almost two thirds of total livestock production, and taking the products separately, beef accounts for the highest share followed by milk, eggs, and pigmeat. Figure 6 shows production indexes between 1971 and 1974 and table 21 of the annex the corresponding rates of variation.

This information reveals a few facts. First, the marked difference as regards the production of beef depending on whether changes in stocks are taken into account or not. Attention should also be drawn to the standstill for two consecutive years in pig production - 1973 and 1974 - compared with the steady increase in poultry, both in respect of meat production and eggs. Lastly, an upturn is evident in the production of mutton - not so in the case of wool - after several years of a downward trend in sheep flocks.

Table 14

LATIN AMERICA: STRUCTURE OF LIVESTOCK PRODUCTION, 1974 a/
(Percentages)

1. <u>Cattle</u>		64.7
Beef	38.2	
Milk	25.7	
Other	0.8	
2. <u>Poultry</u>		20.7
Eggs	12.0	
Meat	8.7	
3. <u>Pigs</u>		11.8
Pork	11.8	
4. <u>Sheep</u>		2.8
Wool	1.9	
Meat	0.9	
	<u>Total</u>	<u>100.0</u>

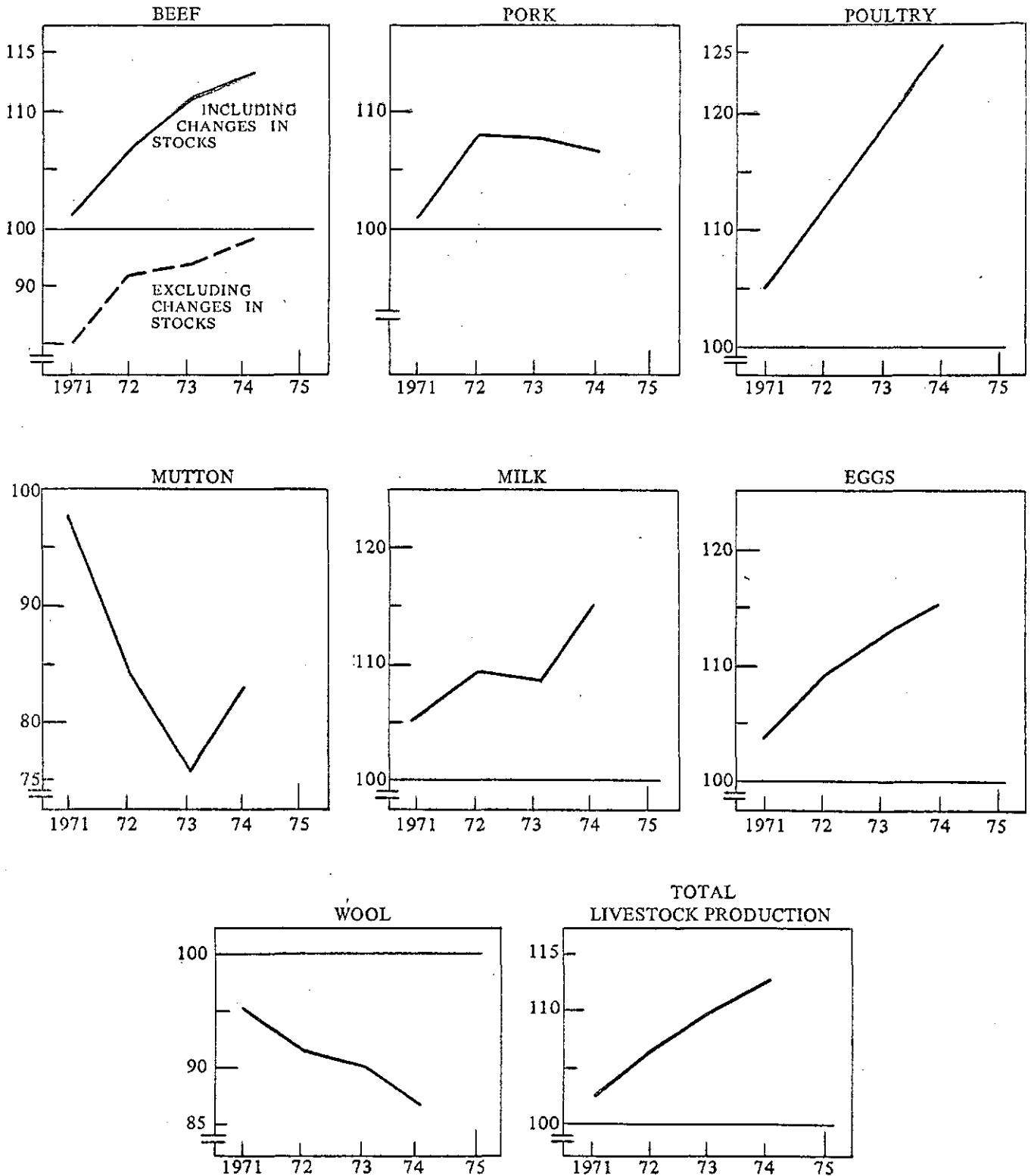
Source: The same as in table 7.

a/ Since this report was prepared in the second half of 1975, it does not include figures for that year.

(i) Cattle herds have shown very marked fluctuations over the current decade and continue to face the eternal problem of maintaining a steady increase in order to establish a balance between production and domestic and foreign consumption of beef, which fell in 1974 and 1975 owing to excessive protectionism and the closing of the markets of an important group of developed countries.

Cattle herds, particularly in those countries which are traditional exporters of beef in the region, show very marked and sizeable cyclical fluctuations in stocks, which have a varying delayed effect on beef production, and in addition determine the cycle of cattle slaughtering.

Figure 6
LATIN AMERICA: VOLUME INDICES OF PRODUCTION OF THE MAIN LIVESTOCK PRODUCTS
(1970 = 100)
NATURAL SCALE



As can be seen in table 22 of the annex, in 1971 there was a drop in the regional culling rate - from 16.7 per cent to 14.6 per cent - and, therefore, a drop in the number of cattle slaughtered, which led to a decrease in the production of carcass beef (see table 15), except in Central America and Cuba. This withholding of cattle and the expansion of herds is seen very clearly in Argentina and Uruguay, and to a lesser extent in Brazil (see table 22 of the annex). If a look is taken at trends in the last-mentioned country, a similar trend is observed in cattle herds in the south, where low cattle culling rates have been maintained at approximately 14.5 per cent up to 1974.

Table 15

LATIN AMERICA: BEEF PRODUCTION
(Thousands of tons)

	1970	1971	1972	1973	1974
Mexico	604	593	629	572	553
Central America <u>a/</u>	253	271	289	292	291
Caribbean	243	247	253	259	259
Cuba	181	183	186	188	189
South America	6 017	5 283	5 707	5 789	5 957
Argentina	2 646	2 027	2 207	2 163	2 230
Brasil	1 852	1 802	2 102	2 211	2 110
Uruguay	363	281	289	324	366
Latin America	7 117	6 394	6 878	6 912	7 060
Index	100	89.8	96.6	97.1	99.2

Source: FAO Production Year Book 1974, op.cit.

a/ Including Panama.

The sharp increase in the cattle population was due to a large extent to the sharp rise in prices for beef in the world market which began in 1971, and acted as an incentive to the retention of breeding cattle with a view to increasing future productive potential. But after reaching unprecedented levels in 1973 cattle prices dropped sharply in many parts of the world during the second half of that very year, and this decrease has continued in most of the countries in 1975. The most marked drops in prices occurred in the major beef exporting countries. "The average export unit value of all types of beef shipped from Argentina was at an alltime high of US\$ 1,426 per ton in December 1973, but fell to US\$ 867 in

November 1974. There was some improvement in prices during 1975 although the volume of shipments was much reduced".^{13/}

Furthermore, in 1974 the volume of world trade in livestock and meat fell substantially, particularly that of beef. The major factor was the decrease in net imports of cows, heifers, and beef by the European Economic Community. Other countries of Western Europe and Japan also introduced import restrictions. Demand from the United States also dropped considerably and this affected exports from Mexico and Central America. In 1974, net imports of the major important market economy countries were an estimated 890,000 tons (approximately 1 million tons less than in 1973). The Soviet Union emerged as a major meat importer taking 515,000 tons of meat, most of it red meat. As a result of this situation, as was stated in the previous chapter, income from exports dropped considerably in the beef producing countries of the region.

The drop in prices, and the obstacles which constituted a serious impediment to exports, caught the regional cattle exporters by surprise in the midst of their herd expanding process. Argentina had increased its number of cattle from 48.4 million head in 1970 to 58 million head in 1974; Brazil over the same period had expanded its number of cattle from 75.4 to 88 million; and Uruguay from 8.6 to 10.8 million. (See table 22 in the annex.) As can be seen in 1974 productive potential was high in all the major exporting countries, and it remained high in 1975. If culling rates continue to be low through 1975, this would mean further additions to the already high stocks of cattle. The number of cattle to be slaughtered in 1975 is expected to be somewhat higher than that of 1974, but the increase will depend to a large extent on the possibility of expanding domestic consumption, cold storage capacity, or eventual exports.

Some countries of the region have tried to strengthen producer prices by eliminating some restrictions on domestic consumption, or reducing export taxes. Beef consumption increased in 1974, and it seems that it will also do so in 1975, in those countries where the drop in producer prices has brought about a drop in retail prices, even in real terms. "The consumption of beef reached unprecedented levels in Argentina".^{14/} In contrast, in other countries of the region demand for beef has been sluggish, owing to high rates of inflation and the increase in food prices. (See chapter IV, section 4).

The drop in prices and export difficulties put an end to the phase which led cattle producers to reduce supplies, to hold back cattle and to increase their herds. Thus, a stage of excessive slaughterings - far in excess of what is called for - is beginning in order to satisfy demand, with the resulting pressure for prices to drop even further. The tendency is to increase slaughtering, particularly of breeding cows, and reduce stocking density on the range.

^{13/} FAO, Intergovernmental Group on Meat, Report of the fifth session, Rome, September 1975.

^{14/} FAO, Intergovernmental Group on Meat, Report of the fifth session, Rome, September 1975.

In the report of the Intergovernmental Group on Meat FAO states that "It was the view of most delegates that the current beef production cycles in the major producing and consuming countries were approaching their peak. The record cattle inventories together with weak consumer demand and the limited pasture and forage availabilities were expected to cause higher slaughter rates throughout 1975, and in some countries well into 1976, especially if feed grain prices remained high. A downturn in beef production was likely in the following years".^{15/}

In some countries of the region, whose domestic production is inadequate or whose herds are used mainly for the domestic market, the drop in world prices has tended to influence the level of domestic prices for beef producing a change in the price relation between beef and milk. This has proved a disincentive to the raising of calves.

(ii) As regards milk production, there continues to be a lack of interest in this staple item of human diet which is linked to the traditional weakness in domestic demand for dairy products. Although figures for Central America, the Caribbean and South America show a steady moderate upward trend in production, very few countries have shown marked increases. The most important among them are Cuba, Venezuela and Argentina. In fact, the highest growth has occurred in the last-mentioned country, which has increased its exports of dairy products. If Argentina's milk production is excluded from total regional production the change between 1971 and 1974 for the remainder of Latin America seems small. (See table 16.)

Table 16

LATIN AMERICA: MILK PRODUCTION
(Millions of tons)

	1970	1971	1972	1973	1974
Argentina	4.2	4.8	5.4	5.4	6.2
Latin America excluding Argentina	19.1	19.6	20.0	19.8	20.4
<u>Total Latin America</u>	<u>23.3</u>	<u>24.4</u>	<u>25.4</u>	<u>25.2</u>	<u>26.5</u>
	Index 1970 = 100				
Argentina	100	105	128	129	147
Latin America excluding Argentina	100	103	105	104	107
<u>Total Latin America</u>	<u>100</u>	<u>105</u>	<u>109</u>	<u>108</u>	<u>114</u>

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of FAO Production Year Book, 1974, op.cit.

^{15/} FAO, Intergovernmental Group on Meat, Report of the fifth session, Rome, September 1975.

The world milk situation was such that in 1975 stocks of powdered skimmed milk accumulated in almost all the developed market economy countries, and support prices for butter (stocks of which fell considerably in 1973 and 1974 owing to the spiralling of prices for vegetable oils) rose as a result of which the accumulation of a "butter mountain" will probably be speeded up, in addition to the powdered skimmed milk mountain already existing.^{16/} This situation will probably induce the countries to increase their food aid with their surpluses of dairy products.

(iii) Poultry raising has shown sustained growth in the region over the past decade. It is second in importance to cattle and contributes almost 21 per cent of livestock production in Latin America. This relatively widespread development of poultry raising continued vigorously up to 1974 (see table 17).

Table 17

LATIN AMERICA: POULTRY PRODUCTION
(Thousands of tons)

	1970	1971	1972	1973	1974
Poultrymeat	992	1 043	1 115	1 182	1 254
Eggs	1 495	1 553	1 631	1 674	1 726
	<u>Index 1970 = 100</u>				
Poultrymeat	100	105	112	119	126
Eggs	100	104	109	112	115

Source: The same as table 16.

However, the change in the relation between prices for poultrymeat and beef, which flooded the market causing a drop in prices and in some countries the cut-back in consumption as a result of inflation and a slowdown in economic activity is likely to produce a drop in the rate of growth observed after 1974, or worse still, some contraction in production.

(iv) Pig production after showing relatively constant rates of growth, maintained almost the same regional levels as in 1972 and 1973 and 1974: approximately 1.9 million tons. (See table 18).

^{16/} FAO, Monthly Bulletin of Agricultural Economics and Statistics, Vol. 24, September 1975.

Table 18

LATIN AMERICA: PRODUCTION OF PIGMEAT
(Thousands of tons)

	1970	1971	1972	1973	1974
Argentina	210	245	244	258	232
Brazil	767	702	772	701	723
Mexico	341	388	408	426	414
Total Latin America	<u>1 750</u>	<u>1 765</u>	<u>1 898</u>	<u>1 885</u>	<u>1 866</u>

Source: The same as table 16.

There was a slight recovery in sheep production. In 1973 stocks fell to their lowest level ever. Since then, particularly in Argentina and Uruguay, flocks have increased slightly in response to the increase in world wool prices. It seems unlikely that stocks or production will match the levels of the end of the 1960s in the short term. In 1974 there was a small increase in mutton production, but wool production fell to an all-time low although a slight recovery is expected in 1975 thanks to the increase in the sheep population. Wool producing flocks, in addition to their importance in traditional exporter countries like Argentina, Uruguay and to some extent Chile, are of particular interest to the Andean countries because of their use in providing food for the rural population and in the manufacture of woollen fabrics. (See table 19.)

Table 19

LATIN AMERICA: SHEEP PRODUCTION
(Thousands of tons)

	1970	1971	1972	1973	1974
Meat	415	408	348	315	345
Wool	336	320	308	301	294
		<u>Index 1970 = 100</u>			
Meat	100	98	84	75	83
Wool	100	95	92	90	88

Source: The same as table 16.

5. Agricultural production by subregions
and by countries

The analysis of the productive performance of national agricultures considered separately is carried out simultaneously with the aggregation of their respective performances by geographic areas and by integration schemes.^{17/}

Owing to the heterogeneity of what goes under the generic name of Latin American agriculture, the analysis was regional in nature, particularly in respect of the performance of selected groups of products or the more important ones, since at this level greater homogeneity would seem to exist. It was considered better to carry out a study of the agricultures as a whole, which is given below, using subregional or national estimates (see tables 20 and 23 of the annex).

In setting out the analysis on the basis of geographical areas, the agriculture of Mexico is presented first. In this agriculture cereals account for a large proportion, of which maize is the predominant one, although both wheat and sorghum are cultivated. Other important items are sugar cane, coffee, and cotton, among crops and cattle and poultry among livestock products. (See figure 7.) Mexican agriculture has not continued to experience the high rates of growth of the past decade. Both in 1972 as in 1973 and 1974, owing possibly to a relative drop in support prices, the rates of growth were under 2 per cent. (See table 23 of the annex.) When this situation was corrected it appeared that it had had some success in reactivating agricultural development in that country in 1975. The introduction of technology in irrigated areas has been continuous, and attempts have been made to give an impulse to dry farming, a task in which progress is slow and difficult.

Central American and Panamerican agriculture, in contrast to Mexican agriculture, is based on a very low proportion of cereals; their main products are, in order of importance, coffee, bananas and plantains, cotton, cane sugar, and maize among crops, and beef and milk among livestock products; these products taken together account for three quarters of the total production of this subregion. (See figure 7.) This is the only subregion with a physical volume in agricultural production in which crops account for more than 70 per cent, the proportion of animal products being much lower than in other subregions. The average rate of growth in the period 1971-1974 was 3.2 per cent per year (see table 20) owing, in the main, to vigorous growth in the crop subsector, particularly in the case of cotton (whose production almost doubled in that period) and a more moderate expansion in the production of cane sugar (see table 21). Coffee production remained relatively stable, with annual fluctuations, depending on climatic conditions, ranging between 420,000 and 460,000 tons per year. As regards banana production (including plantains) some increases were achieved towards 1973, but production fell in 1974 as a result of the hurricane which seriously affected Honduras.

^{17/} To plot agricultural productive activity in each country the indicator used was the physical volume of production, this being calculated on the basis of the producer price structure in 1969 in each one of the countries. The aggregations by subregion or by integration schemes were calculated on the basis of an average regional price structure.

Figure 7

STRUCTURE OF AGRICULTURAL PRODUCTION: TWELVE MOST IMPORTANT PRODUCTS

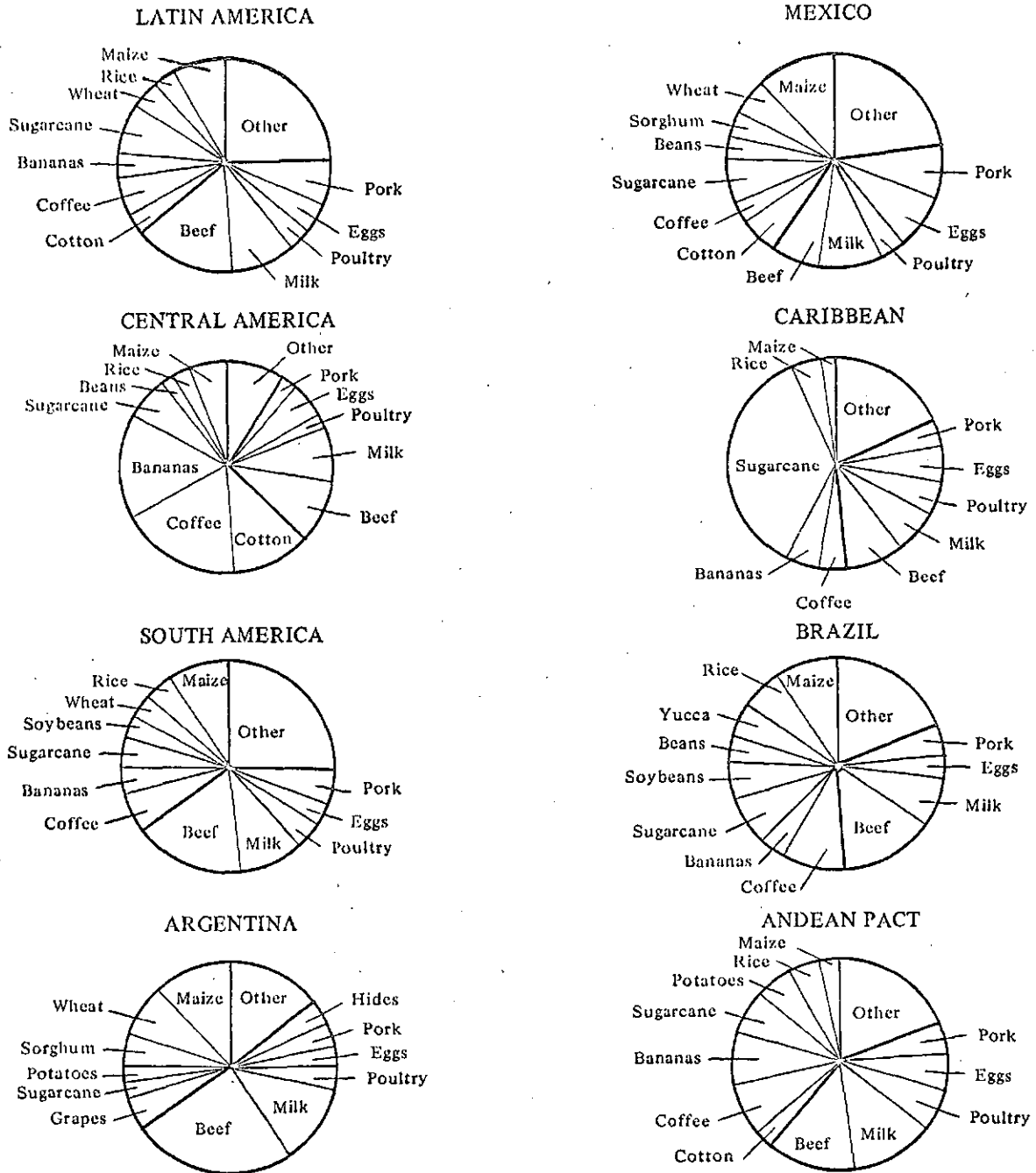


Table 20

LATIN AMERICA: PHYSICAL VOLUME OF AGRICULTURAL PRODUCTION, BY INTEGRATION SCHEMES

(Annual variation in percentages)

	1971	1972	1973	1974	1971- 1974 ^{a/}
<u>Latin American Free Trade Association</u>					
Agriculture	4.4	1.1	0.7	6.5	3.2
Farming	5.3	-0.8	-0.4	9.0	3.3
Stock raising	3.0	3.9	2.4	2.9	3.1
<u>Andean Pact</u>					
Agriculture	0.6	0.3	1.7	5.5	2.0
Farming	1.0	-2.9	0.4	3.7	0.6
Stock raising	0.0	5.5	3.5	8.0	4.9
<u>The Latin American Common Market</u>					
Agriculture	7.5	2.3	3.4	-0.1	3.3
Farming	11.4	-1.6	5.8	1.1	4.2
Stock raising	-1.6	12.5	-2.2	-3.3	1.4
<u>Caribbean Community (CARICOM)</u>					
Agriculture	4.1	-1.4	1.8	1.8	1.6
Farming	3.4	-3.4	-3.0	2.4	-0.2
Stock raising	5.6	3.0	11.3	0.6	5.1
<u>Other countries b/</u>					
Agriculture	-8.2	-2.3	6.6	5.3	0.4
Farming	-14.2	-3.3	8.2	4.8	-1.1
Stock raising	9.7	0.1	2.8	6.3	4.7
<u>By geographical areas</u>					
<u>Mexico</u>					
Agriculture	4.1	1.3	1.8	1.0	2.1
Farming	5.4	-2.3	0.3	4.3	1.9
Stock raising	2.4	6.5	3.7	-3.2	2.4
<u>Central America</u>					
Agriculture	7.7	1.5	3.3	0.1	3.2
Farming	10.7	-1.9	5.6	1.4	4.0
Stock raising	0.5	10.5	-1.9	-3.1	1.5
<u>Caribbean</u>					
Agriculture	-8.3	-1.7	5.7	5.0	0.2
Farming	-13.9	-2.6	6.4	4.5	-1.4
Stock raising	8.2	0.6	4.3	6.1	4.8
<u>South America</u>					
Agriculture	4.3	1.3	0.7	7.5	3.5
Farming	5.7	-0.9	-0.3	9.8	3.6
Stock raising	2.3	4.5	2.1	4.2	3.3
<u>Latin America</u>					
Agriculture	3.7	0.9	1.2	6.0	3.0
Farming	4.1	-1.0	0.5	8.1	2.9
Stock raising	3.1	4.1	2.3	2.8	3.1

Source: The same as table 16.

a/ Simple average of annual rates.

b/ Cuba, Haiti, Panama and Dominican Republic.

Table 21

CENTRAL AMERICA AND PANAMA: TRENDS IN THE MOST IMPORTANT PRODUCTS, 1970-1974

(Thousands of tons)

	Share in total physical volume produced	1970	1971	1972	1973	1974
Coffee	17.4	414	463	445	426	455
Bananas <u>a/</u>	16.3	4 497	4 886	4 832	4 984	4 682
Cotton <u>b/</u>	12.3	481	594	715	809	938
Cane sugar	6.5	10 086	11 687	12 364	12 781	13 488
Maize	6.1	1 767	1 836	1 433	1 759	1 595
Beef	9.4	253	271	289	292	291
Milk	8.2	1 062	1 098	1 110	1 155	1 156

Source: The same as table 16.

a/ Includes bananas and plantains; b/ unginmed cotton.

Cattle raising, which has shown some interesting progress as regards the introduction of technology, has shown simultaneously a constant rate of growth in stocks, improvement in culling rates which increased from 12.7 per cent in 1965 to 14.4 per cent in 1970, and to 17.1 per cent in 1974 (see table 22 of the annex), and, as a result, permanent increases in the volume of carcass beef (see table 14).

In general, 1974 was a bad year for maize harvests in this area. In Mexico there was a drop too in banana production and practically no change in the production of milk and beef. This meant rates below the average of the four previous years in Costa Rica (0.4 per cent), El Salvador (2.5 per cent), Guatemala (1.5 per cent), and Nicaragua (2.1 per cent); in Honduras, for reasons already given, production dropped by 5.9 per cent. Panama was the only country to record a high rate of growth (5.3 per cent), owing to an increase in the production of cane sugar, bananas and rice, and the increase in cattle. The other products showed no important variations.

Agriculture in the Caribbean ^{18/} in the period 1971-1974 recorded a very low rate of growth (0.2 per cent) owing to the drop in 1971 and 1972 in the production of sugar cane, the main crop in this subregion, where it accounts for more than a third of the total physical volume of production. However, the gradual recovery in harvests of this crop, particularly in Cuba, meant rates of 5.7 per cent and 5 per cent in 1973 and 1974 respectively. (See table 23 of the annex.) According to estimates, the Cuban harvest in 1975 will be somewhat smaller than that of 1974. The increase in the beef production has been small, whereas increases in milk and eggs have been substantial. (See table 22.)

Table 22

CARIBBEAN: CHANGES IN THE PHYSICAL VOLUME OF THE MOST IMPORTANT OUTPUTS

	Share of total physical volume produced (per cent)	Production in thousands of metric tons				
		1970	1971	1972	1973	1974
Sugar cane	35.1	101 362	73 973	66 214	74 739	79 941
Beef	8.8	243	247	253	259	259
Milk	6.4	865	892	942	967	1 005
Eggs	6.1	113	120	125	130	133
Bananas	5.2	1 384	1 509	1 585	1 613	1 637
Rice	4.8	627	673	723	773	829
Coffee	3.9	107	114	109	112	110

Source: Same as table 16.

Production of rice, a basic element of the Caribbean diet, has grown considerably. Coffee production has remained virtually constant.

There are considerable differences in the behaviour of national agricultural sectors from the standpoint of the changes which occurred in the physical volume of agricultural production. In Barbados, production has fallen; in Haiti and Trinidad and Tobago, it has grown very slightly. The Dominican Republic had the highest

^{18/} Including Barbados, Cuba, Grenada, Haiti, Jamaica, the Dominican Republic, and Trinidad and Tobago.

growth rates in the period 1971-1974, while Cuba, with its negative growth in the period mentioned above, recovered considerably in 1973 and 1974. (See table 23 of the annex.)

Most of the countries which comprise the Caribbean Community are in this sub-region, with the exception of Guyana which is situated geographically in South America. Agriculture in the CARICOM has grown very slowly (an average of 1.6 per cent annually in the period 1971-1974), apparently for structural reasons and problems of land tenure and use and employment. It is easier to analyse South America by separating the agricultural sectors within the Andean Pact from the rest of the sub-region. Agriculture in the Andean Group was relatively weak from the productive point of view, with an annual growth of only 2 per cent in 1971-1974; however, in 1974 growth rates were relatively high: 6.4 per cent in Colombia; 16.9 per cent in Chile, recovering from the sharp fall of 1973; and 6.1 per cent in Venezuela. In Ecuador, growth was more moderate (3.3 per cent) and in Bolivia production fell slightly. (See table 23 of the annex.) In the Peruvian agricultural sector, there was a falling trend in production during the four years, particularly in potatoes, rice and maize; on the other hand, sugar cane production showed signs of strong growth.

Production estimates for 1975 forecast a strong recovery in Peruvian agriculture, particularly in some crops, such as rice, maize and wheat, with increases of over 25 per cent, and potatoes, sweet potatoes and cassava with growth of over 50 per cent.

For the countries of the Andean Pact as a whole, growth has been greatest in the production of milk, sugar cane, rice and poultry. (See table 23.)

The Argentinian agricultural sector, two-thirds of whose production consists of cereals (27 per cent) and cattle raising products (38 per cent), reacted favourably to the stimulus of the international market in 1973 (+9.2 per cent) and 1974 (+6.4 per cent). In those two years there was high production of maize, wheat and sorghum, although with some fluctuations due to climate. The strong growth in cattle raising faced a difficult, over-protected, and in many cases totally closed, market, and it was therefore hard to take advantage of the great effort made in that subsector.

Agriculture in Uruguay and Paraguay, as in Argentina, revived in 1973 and achieved high rates of growth in 1974 (see table 23 of the annex); they were also affected by the meat problem. The growth of Brazilian agriculture is linked to intense modernization, increasingly efficient and aggressive participation in world markets, better use of the land, which has made possible strong productive growth overshadowed by fluctuations in coffee production, and a resolute agricultural development policy on the part of the government. Production of some cereals has grown, particularly that of maize and, with some difficulties, wheat. The most notable growth has been that of soybeans, and an effort is being made to increase sugar cane production by the introduction of new technology. Growth in livestock has been very slow, except for beef production, where there has been great progress.

Table 23

ANDEAN PACT: EVOLUTION OF PRODUCTION OF THE TEN
MOST IMPORTANT AGRICULTURAL PRODUCTS

	Share of total physical volume produced (per cent)	Production in thousands of metric tons				
		1970	1971	1972	1973	1974
Milk	13.7	5 860	6 171	6 299	6 224	6 603
Beef	13.2	1 044	1 062	998	980	1 134
Bananas	8.5	9 010	8 748	8 691	8 429	8 363
Coffee	7.9	719	675	617	717	700
Sugar cane	6.3	39 594	40 222	42 294	42 467	44 128
Potatoes	5.9	5 013	5 300	4 788	4 423	4 562
Poultry	5.5	250	252	307	330	369
Eggs	5.0	279	292	310	318	336
Rice	4.7	1 829	1 988	1 952	2 228	2 495
Pork	4.1	255	259	292	312	303

Source: Same as table 16.

To summarize the country-by-country analysis, those whose agricultural sectors were most dynamic in 1974, the central year for this study, are the following: Argentina, Brazil, Colombia, Chile, Paraguay, Dominican Republic, Uruguay and Venezuela (see table 23 of the annex). They all increased their production in that year by over 6 per cent, and together accounted for approximately 60 per cent of the physical volume of Latin American agricultural production.

6. Fishing activity

Some countries of the region have been making a sustained effort to develop the fishery sector, by changing the institutional structures and establishing a hierarchy among them, and by preparing integrated development plans to be financed by external resources. However, these efforts will have to be continued in the long-term to produce the desired results, particularly because as countries exercise greater control over the resources off their coasts, they require greater capacity to tackle new problems arising from growth.

FAO will continue to provide assistance to countries to solve these problems, as well as for local manpower training. Regional fishery bodies will of course help to establish the necessary co-ordination to tackle new problems, particularly those related to the evaluation and handling of resources. There are at present two of them in the region (CARPAS and COPACO), and a third will soon be established for inland waters.

Over the last decade Latin America has contributed an average of 20 per cent - 13 million metric tons - of world catches of live sea resources a little over 75 per cent of which was provided by Peru and Chile.

The Latin American share was particularly affected in 1973 by the low anchoveta catches of Peru and Chile. However, because of recovery in 1974, the region's total catch grew by 43 per cent over 1973. A small part of this growth was due to the increased catches of fish for direct human consumption. It is expected that in 1975 catches will continue to increase.

In any event, the waters of the region still contain considerable potential resources, the exploitation of which would make a big contribution to lessening the existing nutritional deficit, and would at the same time represent a source of new income.

Table 24 does not include non-conventional resources, such as antarctic krill, the present world catch of which, 78 million metric tons per year, could be doubled. However, these resources are only partially accessible with existing fishing technology. The problem must be approached systematically with international equipment including the entire range of modern fishing technology.

Table 24

CATCHES AND POTENTIAL FISHING RESOURCES, 1973

	1973 catches (Thousands of metric tons)	Estimated potential yield	
		Thousands of metric tons	Percentage of 1973 catches
Tropical zone			
Central-Western Atlantic	1 400 <u>a/</u>	3 800	271
Central-Eastern Pacific	1 100 <u>b/</u>	5 500	500
Temperate zone			
South-Eastern Pacific	2 900	11 400 <u>c/</u>	393
South-Western Atlantic	800	5 300	663

Source: Calculations based on FAO figures (1974).

a/ Includes United States catches in the Gulf of Mexico.

b/ Includes catches of the United States and other countries outside the region.

c/ Level surpassed in 1970.

(a) Fish consumption

The developing countries, with about half the world's population, consume only 25 per cent of the world's fish production, mostly in direct form. Although there may be exceptions, the absolute level of per capita fish consumption tends to be positively related to the level of per capita income. The relative importance of fish in the diet tends more to be associated with taste, availability and other factors. Thus in the developing countries, fish accounts for almost 20 per cent of animal protein consumption; in the Latin American region, however, this percentage is only 8.1.

Two of the main determinants of demand for fish, as with any other product, are population and per capita income. Although other factors may influence demand, to a large extent an increase in consumption depends on growth of the number of consumers and of their disposable income; however, due to the nature of the product, it is possible that population may be the chief determinant of changes in total demand.

According to FAO calculations and projections, per capita demand for fish (in kilos per year) would be the following:

	<u>1970</u>	<u>1980</u>	<u>2000</u>
World	11.8	13.3	16.2
North America	15.4	16.7	17.7
Latin America	6.5	7.6	9.2
Asia	8.5	10.0	14.8

According to these projections, and bearing in mind existing potential resources, the countries of the region could satisfy demand and considerably lessen the present nutritional deficit by improving production methods, the infrastructure and distribution services.

(b) Foreign trade

At the world level, catches continued to rise in 1974, but consumption of a large variety of products began to fall, markets were generally depressed and stocks accumulated. For some products, this situation began to be felt in 1973; but it worsened in the course of the year, and spread as the economic situation cut purchasing power and, with it, animal protein consumption. However, a positive element in 1974 was the rise in fishmeal production and consumption, and consequently in the earnings of producers.

The developing countries have been affected by cost inflation in the last 12 months, and although the higher price of fuels has been more damaging to the countries with long distance fleets, the higher cost of equipment has affected all fishermen. (See table 25.)

Independently of the growth or decline of catches, the value of fishery production continued to grow in 1974. However, the rise in first-hand sale prices was not enough to counteract the continuing inflation in input costs. In the developing countries, where the consumption of fresh products is the rule and facilities for cold storage are inadequate, sellers of perishable goods are at a disadvantage. The low prices paid to fishermen are affecting mechanization programmes and other investment.

For the reasons given above, demand for certain fishery products in the international market was depressed in 1974, and the market for frozen blocks was overshadowed by large stocks. This situation continued in the beginning of 1975, although the surpluses have been redistributed. The United States, the biggest market for this product, now has normal stock levels because of low domestic production and reduced imports.

The shrimp market was also depressed in 1974, because of an excess of supply and as a result of the general state of economic contraction in the main consumer countries. These difficult market conditions have caused several large exporters to lower frozen shrimp prices. This stimulates sales, but significant improvements in markets will only take place when overall economic conditions are better.

Table 25

INDICES OF VALUE AND VOLUME OF EXPORTS OF FISHERY
PRODUCTS IN LATIN AMERICA

(Average 1961-1965 = 100)

	1970	1971	1972	1973
Value index	228	249	225	178
Volume index	164	168	160	85
Price change index	1.39	1.48	1.41	2.09

Source: FAO, The world state of agriculture and food, 1974.

The canned goods market also reflects the prevailing economic climate; the more expensive products sell slowly, but there is strong demand for cheap and medium-priced products such as tuna and sardines. At the beginning of 1975 sales of the cheap products were adversely affected by the higher cost of tin-plate, manpower and other inputs with a relatively large effect on the cost of the low-priced products. Supplies of tuna were abundant in 1974, and at the beginning of 1975 there were signs that stocks exceeded normal levels.

The outlook for the rest of 1975 and the beginning of 1976 depends to a large extent on the economic situation of the main consumer countries, and particularly on fluctuations in the prices of competing protein foods. Shrimp stocks have fallen and prices have risen. The big catches of tuna in 1974, however, produced an accumulation of stocks and the outlook continues to be bad.

With the aim of contributing to the development of external markets, FAO is completing a study to set up, with UNDP financing, a regional information system on fishery markets.

The greater supply of fishmeal inevitably led to a fall in prices, which dropped from 606 dollars per ton (CIF Hamburg) in January 1974 to 288 dollars at the beginning of 1975. The abundant supply of soybean meal throughout the year, after the exceptional harvest of 1973, also had a downwards effect on prices. However, even when supplies of fishmeal were largest, measured by exports, they were not more than half the average for the years 1970/1972. The abrupt fall in prices caused by a moderate rise in supplies raises doubts about the future position of fishmeal in the compound food market. In any event, the outlook for the immediate future should be viewed with some caution.

7. Forestry activity

Sanwood production, which had remain stationary throughout 1971 and 1972, rose slightly (3 per cent) in 1973, reaching 16.5 million cubic metres. There were no significant changes in exports or imports in 1973 in comparison with 1972, which led to an increase in apparent consumption from 15.2 million cubic metres to 15.8 million. Brazil's share in total regional production is very large: it supplies half the region's sanwood and 60 per cent of exports.

The following figures, in thousands of cubic metres, show the production, trade and apparent consumption of sanwood between 1970 and 1973:

	1970	1971	1972	1973
Production	15 727	16 067	16 005	16 497
Imports	1 898	1 902	1 685	1 727
Exports	2 122	2 279	2 455	2 413
Apparent consumption	15 503	15 690	15 235	15 811

Between 1970 and 1973 the production of board rose by a little over 50 per cent, to reach 2,580,000 cubic metres. Imports, after a peak in 1971, have been falling progressively, due to the great rise in production in the majority of Latin American countries. On the other hand, exports have continued to increase, and were double the volume of imports in 1973. Apparent consumption has grown by a slightly smaller percentage than production, rising from 1,600,000 cubic metres in 1970 to 2,400,000 cubic metres in 1973.

Brazil's predominance in board is even more marked than in the case of sanwood: in 1973, it accounted for 58 per cent and 66 per cent of total Latin American production and exports of board respectively. (See table 26.)

Table 26

LATIN AMERICA: BOARD

(Thousands of cubic metres)

	1970	1971	1972	1973
Production	1 686	1 941	2 363	2 584
Imports	118	165	151	140
Exports	168	217	259	288
Apparent consumption	1 636	1 889	2 255	2 436

The constant increase in paper production has continued, reaching the unprecedented figure of 4,660,000 tons in 1973. Imports have remained steady in the last three years at about 1.7 million tons, while exports still do not amount to 10 per cent of the volume of imports, although they rose as a percentage in 1973. In 1973, apparent consumption exceeded 6 million tons for the first time.

The position of Brazil in this sector is not as dominant, since Mexico and Argentina make a sizeable contribution to Latin American paper production and consumption. In 1973 three-quarters of production (34 per cent in Brazil, 24 per cent in Mexico and 14 per cent in Argentina) and two-thirds of consumption (30 per cent, 21 per cent and 15 per cent respectively) were concentrated in these three countries.

The following figures, expressed in thousands of metric tons, illustrate recent developments in the paper and cardboard sector in Latin America:

	1970	1971	1972	1973
Production	3 787	4 079	4 251	4 659
Imports	1 925	1 711	1 772	1 777
Exports	132	119	115	163
Apparent consumption	5 580	5 671	5 908	6 273

In recent years, the most noteworthy events in the forestry sector may be summarized as follows: heightened interest of countries in the conservation of natural resources, introduction of greater hierarchy among forestry services, more concern for the management of national parks and forest life, and emphasis on forest development planning and reforestation. Despite these encouraging signs, the destruction of forest resources continued because of inadequate management, agricultural development in marginal areas, migratory agriculture, fires, selective exploitation, etc.

The Latin American countries have become aware of environmental problems and the need for rational management of national parks and forest life. The outstanding event in this field was unquestionably the promulgation in Colombia of the National Code for Renewable Natural Resources and Protection of the Environment, based on the principle that the environment is the common heritage of mankind; the Code regulates the management of natural resources, from the atmosphere and airspace to the countryside, water, land, flora and fauna. Mention should also be made of the forestry laws passed in Bolivia and Peru; the agreements among Argentina, Bolivia, Chile and Peru for the protection of the vicuña; the resources for manpower training in these fields in Central America; the support being given in various universities to education in park management and the protection of forest life, by the creation of chairs in those fields; and the start to the activities of the programme MAB I on "Ecological effects of increasing human activities on the ecosystems of tropical and subtropical forests".

Some important developments in the strengthening of forestry activity in Latin America have been the establishment of the Natural Resources and Environment Department and the National Forestry Institute in Argentina, the National Forestry Institute (INAFOR) in Guatemala, and the National Forest Research and Development Corporation (CONIF) in Colombia, and the substantial increase in the Forest Service budget in Costa Rica.

Lastly, in spite of the progress achieved, the monetary foreign trade deficit increased considerably in 1973 and 1974, although the volume of trade underwent no major changes. This was due to the sharp rise in world prices of forest products in 1973 and the major part of 1974. The negative balance in Latin America's trade in forest products, which was 200 million dollars in 1965 and 400 million in 1970, is estimated at over 600 million dollars in 1974.

It will be noted that the various products followed very different trends, since the deficit was exclusively due to the large imports of pulp and paper, while the rest of the components of the forestry sector reflected small surpluses, which were not enough to offset the pulp and paper imports.

III. PRODUCTIVE RESOURCES AND FINANCING

1. Land use and changes in average production

(a) Land use

The development of regional agriculture is based mainly on the ever expanding incorporation of suitable agricultural land. This horizontal growth has been achieved through the expansion of agricultural frontiers, particularly in some regions located in the major hydrographic basins, or through the more intensive use of land already under production.

Year by year, the area sown or under cultivation has been increasing in Latin America, as a result of which the analysis of the growth in plant production has centered on "cultivated or harvested land". The area under cultivation expanded by more than 15 million hectares between 1960 and 1970 and between then and 1974 by a further 6.5 million hectares. The area harvested increased from 69.3 million hectares at the beginning of the past decade to 91.1 million in 1974. (See table 23 of the annex.)

In the long-term, the rapidity with which the area under cultivation is expanding ^{19/} would seem to depend, first on available or unused suitable agricultural land and the forms of land tenure or ownership. In some relatively uninhabited ecological areas or hydrographic basins, the incorporation of new land on a rational basis is linked to technological know-how and the availability of suitable technologies, and the capacity to build a limited communications and marketing infrastructure. However, in the short-term, the rapidity with which the area harvested is expanding is determined to a great extent by market conditions, particularly those related to effective demand and prices, and marketing possibilities. Where marketing conditions are favourable, the expansion of areas under cultivation also depends on the growth cycle of each crop and climatic conditions.

The area under cultivation expanded rapidly during the first five years of the 1960s, by 8.8 million hectares (2.5 per cent per year), subsequent increases were moderate; in the second five-year period of the 1960s, only 6.3 million hectares were brought under cultivation (1.6 per cent per year).

In 1972, because of drought and other adverse climatic conditions, there was a decrease in the area under cultivation. However, in 1973, the area under cultivation began to increase again, particularly for short-cycle crops with good export prospects. This rate of expansion increased in 1974 reaching levels unknown in the last 15 years, and in this year alone, the area under cultivation increased by more than 4.2 million hectares, an increase of 5.3 per cent. This shows that the increase in the area under cultivation is not gradual nor constant, but that it

^{19/} Expansion of the area under cultivation implies both the incorporation of new land by expanding the agricultural frontier, and the relocation of crops, the use of natural grass-land, the use of multiple and/or mixed crops, etc.

occurs in those years in which demand prospects are more favourable. As for trends in the 1970s, there has been some progress in areas under cultivation, particularly in Central and South America, although the situation varies from one country to another. In the Caribbean, the expansion in the area under cultivation has been limited. In this subregion, some countries, such as Jamaica, have made noteworthy efforts to increase the land under cultivation. In Mexico, the area under cultivation increased at a slow but constant rate. Brazil is the country which has made the greatest contribution to the increase of land under cultivation. (See table 23 of the annex.)

This is attributable to a large extent to the incorporation of marginal land and the opening up of Amazonia, and also to the intensive use of factors of production in the agricultural commercial subsector, which revealed great response capacity and flexibility to market needs and expectations.

New land brought under cultivation in 1974 was used mainly for two groups of products, whose prices increased considerably in export markets: 2.2 million hectares were used for cereals; in particular maize and sorghum. As regards the second group, oil seeds, an additional 1.3 million hectares were cultivated, the greater part being used for soya. (See table 24 of the annex.) This had led to changes in land use and crop location, the shifting of some and the introduction or expansion of others.

As regards natural grass-land, information available is inadequate for studying, for the medium-term, the changes which took place in expansion or composition. However, three changes, though differing in importance for national agricultures, seem to have taken place simultaneously. First, the amount of natural grass-land increased, owing mainly to the advance of the frontier and deforestation. Secondly, natural grass-lands have deteriorated owing to excessive grazing, and the more important natural species of fodder are tending to disappear, and lastly, the moderate increase in artificial or improved grass-lands, through fertilization or where grazing is subject to a system of rotation or other systems which mean better use of such land.

Depending on the specific situation of each agriculture, the three changes referred to above took place to a differing degree in each area or subregion. The countries with limited agricultural land have been concerned with improving their natural grass-land or replacing them by artificial grass-land. Other countries which have relatively wide expanses of land for cultivation and grazing could expand in one direction or another, without producing excessive competition for the resource or generating acute imbalances.

What seems to be relatively clear for the region, is that the supply of fodder for cattle has been increasing steadily, either because of the increase in grass-lands, because of their better use, since their productivity has increased, or because of the higher level of technology in the conservation of fodder. In fact, cattle numbers have increased steadily; from 197 million head in 1965 to 256 million in 1974. The increase in the cattle population by 60 million head within a decade means, without any doubt, that fodder supply had increased or that better use had been made of the regional fodder potential. To a certain extent, just as in the case of crops, the expansion in the cattle population is mainly horizontal and progress in productivity levels has been limited. The average coefficients of

calving and culling, and other factors including health, seem to support this conclusion. This does not mean that cattle raising has not been modernized, but that the degree of penetration of this process has not been sufficiently extensive to be reflected in the coefficients mentioned above.

A belief which is gaining ground is that Latin America has an abundance of potentially productive land and that only 30 per cent of the surface area of the region is unfit for any type of agricultural use and that potentially useful land would probably amount to 1,400 million hectares, of which 570 million are likely to be arable.^{20/} In South America,^{21/} potentially arable land would probably amount to 524 million hectares of which only approximately 120 million were likely to have been developed in 1970, that is to say no more than 23 per cent. Compared with other regions of the world, Latin America, and more particularly South America, is the region where the least use has been made of land potential.

However, the overall view of the agricultural potential of the region should be examined with greater care. First, surveys of land and water are still inadequate. A large area of the region has not been surveyed, except for some exploratory evaluations. It is possible that studies or evaluations of the region's resources may help to put to rest some views and myths on the subject. In any event, the partial surveys made hold out less optimistic prospects than those offered by tradition. In Chile, more detailed surveys have revealed that spare arable land is less than earlier estimates indicate. Similarly, studies for the preparation of the soil map of South America ^{22/} have brought some serious limitations to light on the nature of the soils of this region, particularly their low level of natural fertility. No less than 50 per cent suffer this defect. A further serious constraint is the scarcity of water. Twenty per cent of South America is in the semi-arid zone, where farming without irrigation is risky or totally impossible. There are also extensive areas of craggy land in the Andes which make up almost 10 per cent of the continent. In conclusion, the study states that the area which does not suffer from the limitations indicated is less than 10 per cent of the total. A recent report on soil management and evaluation in the Amazone region, which is the largest and least populated in Latin America, also draws a similar conclusion that 90 per cent of the soils of the Amazone region have a low level of natural fertility.^{23/}

Furthermore, the settlement and exploitation of potentially agricultural land have met with several obstacles. The supposedly large reserves of the region are located in areas where access is difficult. Heavy investment is required for the basic infrastructure and new farms. Research and technology suited to the natural condition of the areas to be settled are required. In many cases the methods of cultivation and the difficult conditions under which new land could be made productive have led to the systematic destruction of resources, giving rise to shifting cultivation which rather than bringing about an increase in the agricultural area makes it increasingly impossible to do so. In other cases, the

^{20/} FAO, Indicative World Plan, Rome, 1970.

^{21/} FAO, Perspective study of agricultural development for Latin America, Rome, (PSWAD/01), 1972.

^{22/} FAO-UNESCO, Soil map of the world, Volume IV, Paris, 1971, UNESCO.

^{23/} FAO, Evaluación y manejo de suelos en la región amazónica. Regional Project FAO/UNDP RLA 70/457, September 1972.

human or cultural ties of the people which keep them attached to a certain environment stand in the way of migratory flows to less populated areas. For all these reasons progress in settlement projects is very slow and their significance for agricultural activity as a whole is limited. In Latin America, many settlement projects have failed.

Usually, the land which lends itself most easily to agricultural use has already been incorporated and for this reason a realistic approach must be taken in evaluating the possibilities offered by marginal land in the agricultural development of the region. In Central America, there are apparently numerous possibilities of bringing new land under cultivation, for only 40 per cent of such land is used for this purpose. However, of 21 million hectares with some agricultural potential, which remain to be incorporated, only 2 per cent is suitable for intensive agricultural use. Furthermore, the possibility of increasing the agricultural area, or land under cultivation is not the same in the different countries. Some countries such as Uruguay, Haiti, Chile, El Salvador, and to a certain extent Mexico, are coming to an end or reached the end, some time ago, of the stage of the occupation of agricultural land and there are no more sizeable areas left for settlement. Therefore, the most viable path seems to be that of intensive cultivation, in the short- and medium-term not only for the countries mentioned, but also for the whole region. Under-utilization of the soil already being cultivated is widespread in Latin America, even in those countries where the density of the rural population is high. For example, in the Andean sub-region, of 20 million hectares of arable land, only 11 million hectares are cultivated annually, the remainder being set aside for use as natural grazing land, or left to lie fallow, and a small fraction as seeded grass-land.^{24/}

Under-utilization also extends to irrigated land. Equally notorious is the inefficiency in the use of grazing land and the low stocking density of cattle per unit of grazing land, as well as the small proportion of seeded or improved grass-land.

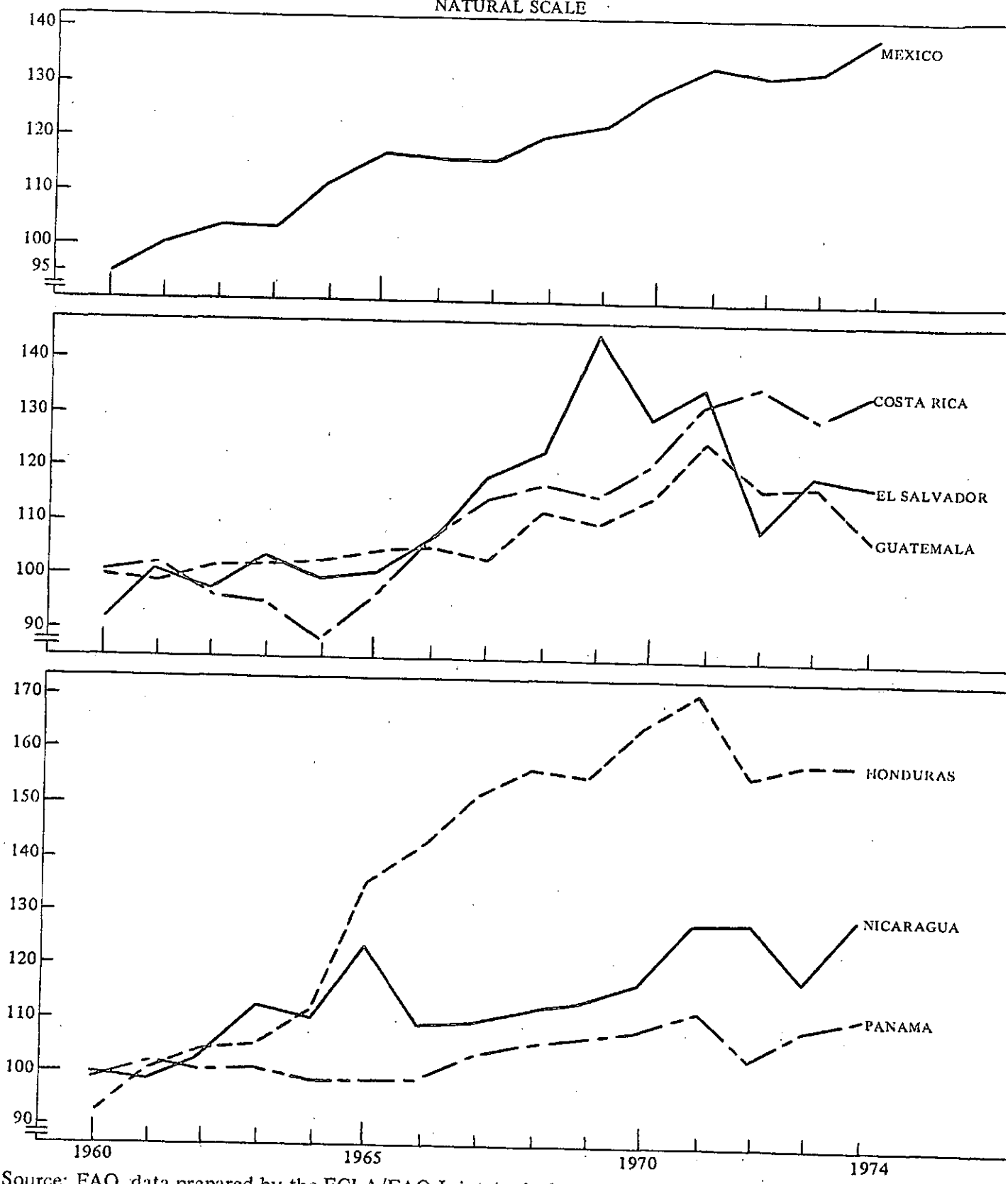
(b) Changes in the average production of cultivated land

With a view to providing a picture of trends of the yields of the principal crops of each country, an index was prepared in which the structure of soil used for the two-year period 1960-1962 was maintained constant and annual crop yields valued at average producer prices paid in 1969 in each country. Since annual crop yields depend mainly on climatic conditions, a period of 15 years was taken, so as to provide a better picture of medium-term trends compared with year to year changes.

Most of the national agricultures have increased their average yields at different rates and over different periods which, in certain cases, could have been identified if the analysis had covered a longer period. Thus, for example, in Mexico, higher productivity in its cultivated land clearly began in the 1950s. In other cases, the results of efforts to improve productivity began in the 1960s, that is to say the period covered in figures 8 and 9.

^{24/} FAO, Perspective study of agricultural development for Latin America, op. cit.

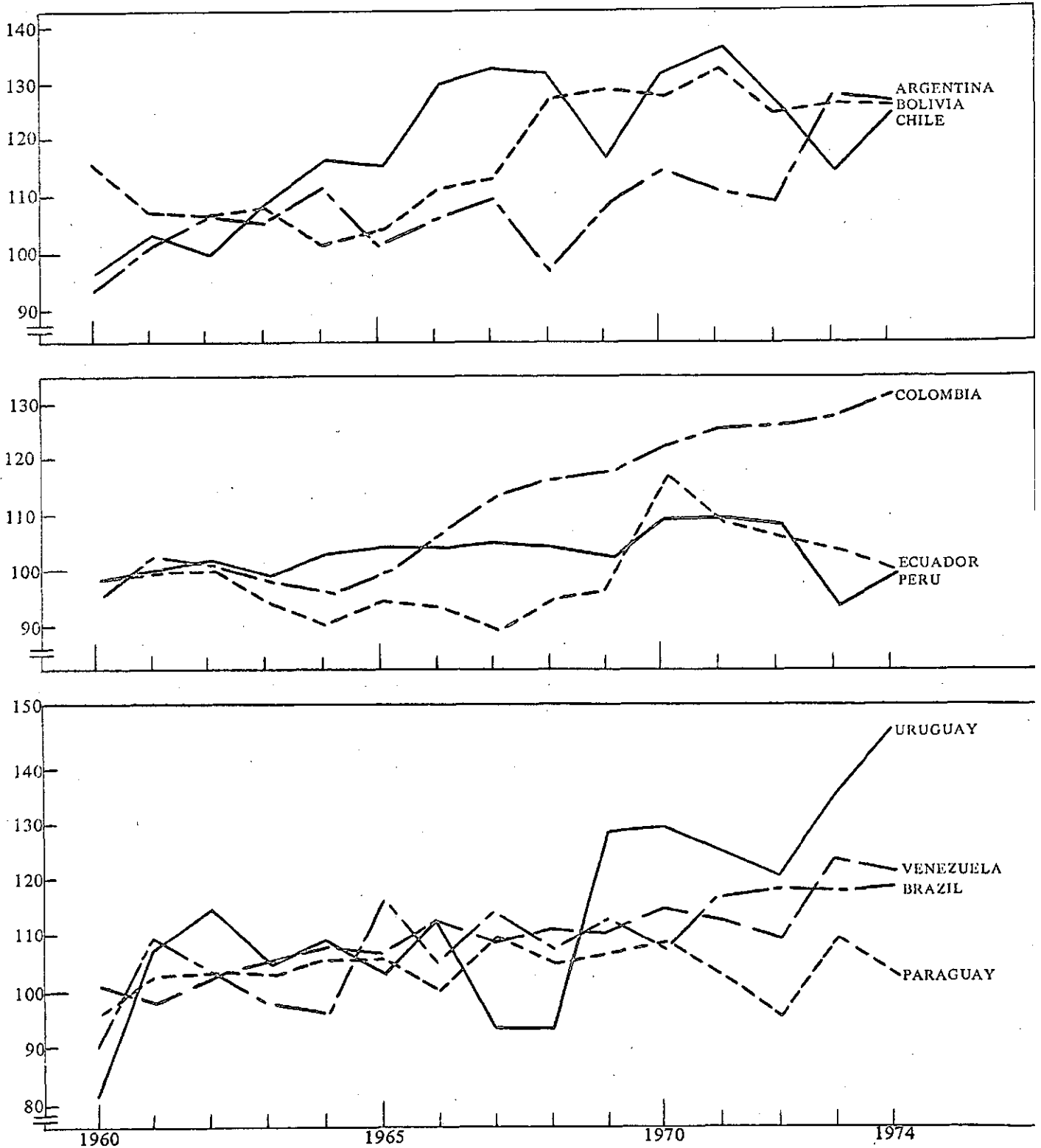
Figure 8
LATIN AMERICA: INDICES OF THE YIELD OF THE MAIN CROPS OF EACH COUNTRY
(Average 1960-1962 = 100)
NATURAL SCALE



Source: FAO, data prepared by the ECLA/FAO Joint Agriculture Division.

Figure 9
LATIN AMERICA: INDICES OF THE YIELD OF THE MAIN CROPS OF EACH COUNTRY
Base indices: average 1960-1962 = 100

NATURAL SCALE



Source: FAO, data prepared by the ECLA/FAO Joint Agriculture Division.

Colombia and Costa Rica - to give a couple examples - experienced their first important results towards 1966; Bolivia in 1968. In other countries, the beginning of this sustained improvement is less marked.

This increase in yields can be attributed to a combination of various factors, such as the culmination of organized research work and the distribution of the results, particularly with respect to the genetic improvement of plants, the use of new fertilization techniques, pest control and advanced farming methods. In other cases, the contributing factors were programmes for land improvement, particularly investment in irrigation. And lastly, one cannot overlook the advances stemming from more efficient organization - from the technical and economic point of view - of commercial productive units.

However, some agricultures did not, in general, succeed in raising their yields to any meaningful extent over the 15-year period under study. In some countries some progress was noted in some crops, but this did not affect the average level of productivity of cultivated land as a whole. Three countries among those studied, which showed the lowest increase in the average production of their crops are Ecuador, Paraguay and Peru - the latter particularly in its Andean region. However, the improvement of soil productivity at higher and constant rates offers these countries great possibilities of strengthening their agricultures.

It is important to evaluate objectively each country's possibilities of expanding crops and agriculture generally, according to the availability of land, since in certain circumstances growth of production may be hindered if the cultivated area cannot be enlarged and if efforts to increase the yield are inadequate.

In chapter II, in the study of the behaviour of production in national agricultural sectors, the origin of the recent increases has been indicated for the main crops, as well as their share in the cultivated area and changes in average yield by unit of area. (See again annex, table 24 and figures 8 and 9.)

2. Technological inputs

(a) Introduction of modern technology

A significant feature of regional agricultural development is the growing use of modern technology in productive operations. Three events have been noted in this respect in recent years. The first of them is the improvement of the infrastructure for technological development; the second is the relative concentration of users of new technologies, particularly those which require a bigger capital outlay, and the third, perhaps the most important at present, is the sharp rise in prices of the more indispensable technological inputs.

As regards the infrastructure, progress achieved in higher and post-graduate education, the development of research institutes, and the increase in funds set aside for this task, favoured considerable advances in the development and adaptation of technologies. New varieties, and the production of hybrids are common occurrences, particularly in the case of cereals, and there has been success in adapting varieties from other regions. There is also a better understanding of the problems of plant nutrition and the fertilizer needs of crops. With respect to cattle and sheep, even though technological levels are generally below standard, progress has been made in some aspects of cattle

management, and some health campaigns are worthy of mention, particularly the joint anti-foot and mouth campaign which covers a number of South American countries. Clear progress can be seen in the management and feeding of poultry and pigs.

Varying conditions, both structural as well as economic, restrict the spread of technological progress with the result that it does not extend to all productive units. Levels of knowledge, access to the market and sources of finance, as well as access to the very sources of modern technology extension services, meant that medium-sized and large producers have benefited most from technological progress, and for this reason have been able to make better use of market opportunities to the detriment of groups of small producers. As a result, research needs to be of a special kind, the same is true for extension services and credit, if it is to meet the needs of larger groups of peasants.

With reference to the last point, a growing cause for concern in the region is the technology/employment nexus. A distinction has been made, with justification, between the introduction of labour intensive technologies and capital intensive technologies. The introduction of labour displacing technology, developed in countries where manpower is scarce, in countries which have obvious difficulties in employing their human potential is a step in the wrong direction as results in Latin America show, for it is at variance with the opportunity cost of factors, and with the idea of harmonious development inherent in the concept of equal opportunity for all.

The under-utilization of human resources in the agricultural sector generally takes the form of underemployment if not that of unemployment. An agricultural worker is considered underemployed if, in spite of being of age, able and willing to work, he, for reasons beyond his control, works shorter hours than he could, or if he has full-time employment - regular working day, and regular working week - and is employed in unproductive tasks or is paid abnormally low wages for what he does.

It was estimated that in 1970, of all agricultural workers in Latin America, more than 17 million were underemployed, which meant the underemployment or absolute loss of human resources to the amount of 7 to 10 million workers.^{25/}

The equivalent estimated rates of underemployment in Latin America vary between 20 and 30 per cent; those for some countries exceed the latter figure.^{26/}

The determinants of such a serious employment situation are varied, but the major ones are related to the prevailing agrarian structure and the impact of technological development.

^{25/} Michel Bourrier and Sergio Maturana, El empleo agrícola en América Latina, PREALC/60 (July, 1973).

^{26/} PREALC: Costa Rica, Meseta Central 18 per cent; Chile 20 per cent; Nicaragua 19 per cent; Panama 24 per cent; Paraguay 35 per cent; Ecuador 33 per cent; Peru 36 per cent; El Salvador 47 per cent.

Much more familiar are the employment problems of the small farmer, which reflect both an inadequate factor mix - little land and a great deal of manpower - and a limited access to other job opportunities, thereby determining lower productivity and, therefore, insufficient income for the family. Generally, such a situation tends to worsen with the sub-division of land, or an overflow outlet is found in migration to the cities.

Much less familiar, but no less serious, is the technological impact. Increasing mechanization has enormously reduced work per unit of land or of output. The cultivation of staple grains and other export products which have been the principal source of jobs for the small farmer, and for temporary and permanent workers, is being rapidly mechanized in the majority of countries, and such mechanization is becoming specialized in the medium-sized and large farms.

Furthermore, the modern inputs being used make up a single technological package with the machinery, and the much more rapid increase in output in modern farms - usually the largest - have resulted in lower costs for many products which, therefore, take the place in the market of the output of the small semi-subsistence farmer and further reduce indirectly his employment.

When technological change is introduced in a stratified agrarian structure, with a highly unequal distribution of land and jobs, there are serious repercussions on employment and on the income levels of the least favoured peasants. Generally, when changes are introduced in the production pattern and in the traditional role of the labour force, the brunt of the readjustment is borne by those who are least prepared to do so. Without organized labour, as in the case of the labourers, without access to new technology, as in the case of the small farmers, the peasants which make up the labour pool have to depend to a greater extent on the poor employment provided by their plots, and to accept the wages imposed on them by the owners, or emigrate to the cities, or to new settlement areas.

Although aware of the social problems which follow in the wake of modernization, the countries are apparently faced with the dilemma of choosing between unequal alternatives: greater production and less employment or vice versa. Paradoxically, rising prices for modern inputs, particularly those of machines and petroleum, have led to a capital/labour cost ratio which is more representative of the social cost characteristic of societies in which it is assumed that capital is scarce and manpower abundant. This opens up a relatively new horizon for planners and politicians, and, in turn constitutes a challenge. How to modernize and increase output in the small and medium-sized holdings, without excessive mechanization, using intensive techniques which require greater use of manpower and some modern complementary inputs - which increase output per unit of land, and of labour - without necessarily reducing the number of jobs?

Finding a solution to this problem constitutes a task of enormous importance, particularly for those countries with no land to spare and a high population density as is the case in several Central American countries, and in some Andean regions.

(b) Use of fertilizers and other inputs

At the present stage of agricultural technology, chemical inputs such as pesticides, and particularly fertilizers; genetically improved plants and seeds; the use of various sources of energy, and the use of efficient farm machinery and implements cover the whole range of basic technological inputs for agricultural development.

The modernization of the agricultures of the region which was examined in preceding paragraphs concerned a rapid incorporation of certain technological inputs in productive activity. Apart from the use of improved seeds, particularly those of cereals and grains, the use of chemical fertilizers has been increasing rapidly. The annual rate of growth of fertilizer consumption which in the decade 1963/1964-1972/1973 was 14.3 per cent, rose to 17.3 per cent during the period 1966/1967-1972/1973. The use of pesticides is also increasing rapidly, and in some cases at rates higher than those of fertilizers. The number of agricultural tractors increased from 350,000 in 1960 to 645,000 in 1970 and it is thought that the figure in 1974 will be 760,000 ^{27/} with the concomitant growth in the consumption of fuel. The rate of increase of the number of tractors, which was approximately 6.4 per cent in the 1960s, has tended to drop so far in this decade to 4.1 per cent owing to, among other reasons, the higher prices which agricultural producers must pay for this equipment.

So far in the present decade, the clearest pointer to the situation relating to technological inputs for agriculture, which, in keeping with the trend observed in the previous decade, continued to be rapidly incorporated in the productive process, is the scarcity and/or dearth of fertilizers, pesticides and fuels in international markets.

As regards pesticides, signs of the widespread scarcity of almost all of these were observed from 1973/1974, those in extremely short supply being herbicides, particularly those used for cereals, cotton, maize and sorghum. In 1974, scarcity was only evident in respect of a few products, for stocks were being drawn upon, but the situation tended to worsen towards 1975. The cause of this problem is the scarcity of raw materials. In 1973/1974 there was an increase of 25 per cent in world demand for pesticides, on the other hand, world production fell slightly. The region imports more than three-quarters of its needs in these products, and the prices in some cases have doubled or tripled.

For various reasons, fertilizer prices rose sharply around mid-1972.

The reasons most frequently given in the various studies of the fertilizer crisis are the energy crisis and the rise in petroleum and natural gas prices; the cyclical depression of fertilizer production capacity; sustained growth of demand vis-à-vis inelastic supply; and finally, the frightening possibility of a relative shortage which led the importer countries to make advance purchases to ensure their supplies for at least one agricultural year. This last factor is at once an effect and a cause of the crisis. While the scare and the advance purchases were caused by the other factors given above, they in turn contributed to the price spiral and to world speculation both by the usual brokers and by

the manufacturers themselves. The latter played a decisive role, since in 1974 they handled no less than 70 per cent of the volume placed on the international market, and managed to make up for their losses or small profit margins brought about by low fertilizer prices between 1966 and 1970, and for the slow recovery of the fertilizer market between 1971 and 1973.

The rises in fertilizer prices were also linked to the considerable increase in sowings of cereals and other food grains in 1973/1974 in the United States as a result of price expectations in that year. The areas sown with wheat and maize rose by 25 and 10 per cent respectively, which called for a greater volume of fertilizers at a time when production could not grow easily because of the limits of installed capacity. Because of this higher consumption, the exportable surplus of the United States, the main world exporter of phosphates, while not falling significantly, did not rise in proportion to the demand of the usual importers which include all the Latin American countries except Cuba and Mexico. In turn, the United States increased its imports of nitrogenous fertilizers (urea) since it has a deficit of this nutrient, as well as of potash. The pressure this produced on world supply caused the first price rises, which producers and speculators exploited through alarmist statements which created uncertainty in countries which were not producers or had deficient production, whose arrival on the market for advance purchases, and sometimes for greater amounts than usual, exacerbated the rising trend.

Since the fertilizers were purchased at high prices on the world market, their sales price was also high, despite the subsidies provided by some countries; farmers bought smaller volumes and large stocks remained unsold. The producers decided to use less fertilizers or to go without them, particularly for some crops with low price levels which could not ensure them a minimum profitability. Thus stocks accumulated in the majority of developing countries, and even in 1975 some of them had not been able to run down those stocks. This, combined with the entry into operation of new plants, particularly in the industrialized countries, and a fall in demand for fertilizer materials used for industrial purposes because of the general economic contraction, eased the situation of fertilizer supply and prices from the beginning of 1975, and this became more marked in June, July and August of that year. Prices did not return to their 1972 level, and are expected to remain above it because of the rise in fertilizer production costs. (See table 26 of the annex.) In any event, an end has been put to the fears that the relative shortage originally expected to last longer, would perpetuate itself.

The rapid rise in fertilizer demand in the region, and the relatively slower growth of domestic fertilizer production has led to a higher degree of dependence on world markets for supply of these inputs. Whereas at the beginning of the 70s the region supplied 50 or 60 per cent of its fertilizer requirements, in 1971 and 1972 regional production only satisfied 40 per cent of domestic demand, so that recent events in world markets have had a big impact both on the domestic prices paid by farmers and on the level of fertilizer use in the region. With regard to the availability or supply of fertilizers in 1974 and 1975, with a few exceptions there were no serious deficits in Latin America, but as was pointed out above fertilizer prices were very high, which was the most significant aspect of the fertilizer crisis in the region. Financing for the supply of these inputs was sometimes hard to obtain, and payments for fertilizer purchases, as well as other

inputs whose prices also rose considerably, had a negative effect on the balance of payments of the Latin American economies.

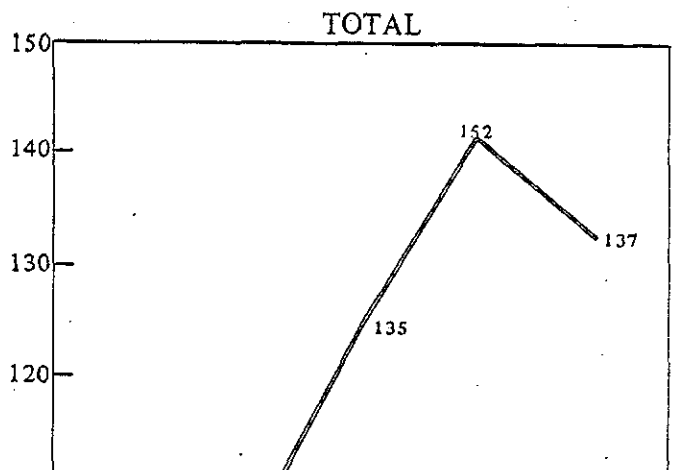
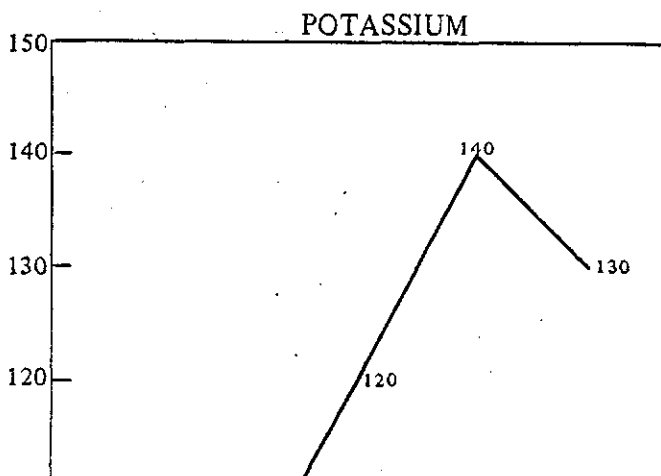
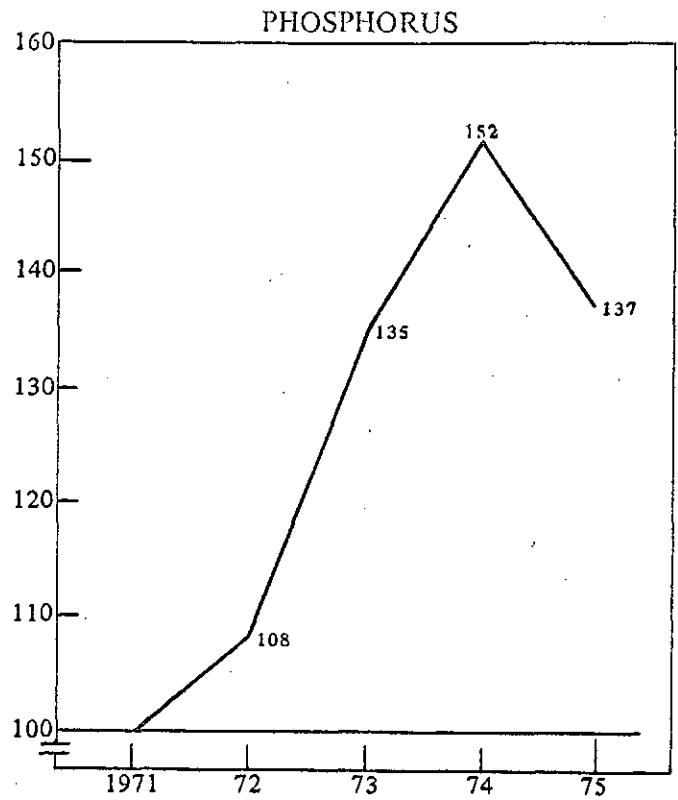
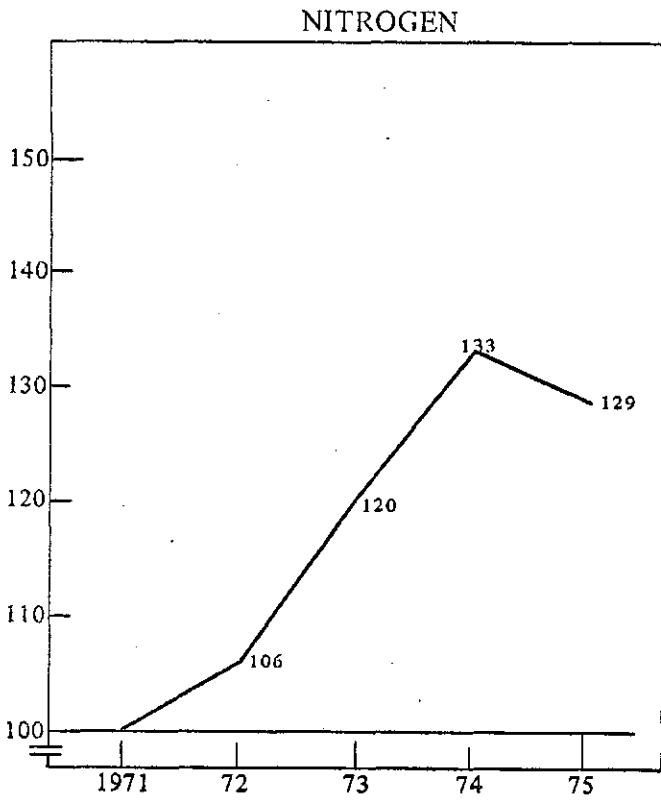
From the agronomic point of view, the fertilizer crisis has apparently, according to the preliminary information available, had more serious consequences than was expected originally. In the agricultural year 1974/1975, in which the fertilizer crisis was in full swing, there was a fall in absolute terms, with respect to the previous year, in the volume of the most important nutrients (nitrogen, phosphorous and potash) used in agriculture. Thus there was a break in the sustained trend to use increasingly large amounts of chemical fertilizers in production. (See annex, table 27.) In absolute figures, consumption in 1973/1974 stood at 4.11 million metric tons of NPK, and in 1974/1975 at only 3.85 million, which amounts to a drop of 6.3 per cent. This is a new situation and its effect on production cannot be measured while information on 1975 harvest is unavailable. Naturally, the impact will not be the same for all countries or all products. It will depend on the level of fertilizer use, the productive technology employed, the price levels of the products which require higher amounts of fertilizer, official policies on input prices, etc.

According to the preliminary information available, some agricultural sectors have considerably reduced the use of fertilizers in 1974/1975. In Chile, for example, it is estimated that the reduction may vary between 38 and 43 per cent with respect to the total volume of fertilizers used in the previous year; in Ecuador, it is calculated that the fall in fertilizer demand of producers has been between 30 and 35 per cent, in Colombia, between 17 and 20 per cent, and in Brazil around 11 per cent. In the Central American agricultural sectors as a whole, the use of fertilizers appears to have fallen by roughly 20 per cent in the year 1974/1975.

Mexico, one of the countries which showed a constant rate of increase in the use of fertilizers, owes this either to the fact that it satisfied most of its consumption from domestic production or to the price policy applied in respect of fertilizers. It would appear that there was no drop in consumption in the Caribbean subregion during 1974/1975 owing to the recovery in fertilizer levels in agriculture in Cuba, which had plunged in 1971 and 1972 and then risen substantially in 1973 and 1974.

The revival of fertilizer demand in the agricultures which make more intensive use of this input, is likely to be observed as from the end of 1975 and in particular during 1976, for as was pointed out world prices have dropped and several countries, among them Chile, Brazil, Peru and Venezuela, have adopted measures to reestablish former consumption levels of this highly important input in agricultural production. (See figure 10.)

Figure 10
LATIN AMERICA: CHANGES IN FERTILIZER USE, BY NUTRIENT AND TOTAL, 1971-1975
(1971 = 100)
NATURAL SCALE



There is no information available for identifying those crops which could suffer most from the contraction in the use of fertilizers. Farmers must no doubt take into consideration the relation between the price of each product and that of the fertilizer required for each crop, relative profits which can be obtained from the various crops, and other agro-economic factors such as, the damage caused by under-fertilization, particularly in respect of permanent crops. Of course, fertilizer requirements vary greatly depending on natural conditions and the type of crops. Thus, for example, whereas pulses in general require little, sugar crops such as sugar cane and sugar beet require a great deal. Because of a number of agricultural and economic factors some crops receive a greater quantity of fertilizer. For example, in South America (see table 27) more than 60 per cent of the nutrients are used for cereals, fruit and sugar and beverage crops. The quantity of each nutrient also varies depending on the type of crop. For example, coffee requires a great deal of potassium, which explains, why almost 26 per cent of the total quantity used in South America seems to have been used on the group "beverage crops".

Table 27

SOUTH AMERICA: ESTIMATE OF FERTILIZER DISTRIBUTION BY GROUPS
OF CROPS AND BY NUTRIENTS. YEAR 1970/1971

(Percentages)

Groups of crops	Nitrogen	Phosphoric acid	Potassium
Cereals	29.8	25.0	13.6
Fruit	12.2	6.5	11.1
Sugar crops	11.9	9.7	18.2
Beverages <u>a/</u>	11.8	13.3	25.9
Fibres	7.4	6.8	9.8
Grassland	7.0	11.5	0.8
Oilseeds	4.9	11.1	7.5
Roots	3.7	4.2	2.0
Vegetables	3.6	2.5	3.5
Pulses	0.6	2.4	1.1
Others	7.1	7.0	6.5
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: FAO, EPDASA, August 1972.

a/ Includes coffee, cocoa, tea and maté.

The analysis of fertilizer use by countries helps to provide a clearer picture of the concentration of fertilizers in a limited group of crops. Information available for South American countries show the high levels of consumption of fertilizers in respect of bananas in Ecuador, as well as in the case of cereals in Bolivia, Colombia, Chile, Uruguay and Venezuela; tubers in Argentina and Bolivia; and sugar crops in Chile, Ecuador, Uruguay and Venezuela. Coffee absorbs 25 per cent of the fertilizers used in Brazil and Colombia. (See table 27 of the annex.) Costa Rica uses a little more than 70 per cent of its total consumption of fertilizers on three products: coffee (32 per cent), bananas (32 per cent) and sugar cane (8 per cent).

Therefore, it is to be assumed that the contraction in purchases and the use of fertilizers by farmers will have a direct effect on the future production of bananas, coffee, cereals (wheat, rice, maize and sorghum) sugar and tubers. This group of crops accounts for approximately 40 per cent of the physical volume produced by Latin American countries.

The reduction in fertilizer use during 1974 and 1975 will continue to exercise an effect for some time. It is no easy task for farmers to reestablish 1974 fertilizer levels. This can be seen from the level of accumulated stocks in several countries of the region, which were bought at high prices. Furthermore, the fertilizer crisis brought to light the low level of efficiency in their use - in several countries, several crops being involved - when such use is not accompanied by the complementary technological package. In several countries it will be some time before they reestablish 1974 fertilizer levels, and it is also felt that the annual growth rates recorded prior to the crisis will not be matched in the remaining years of the decade. They will certainly be lower than the annual rates of 13 and 14 per cent which were normal of that trend.

In order to estimate fertilizer requirements in the region, projections ^{28/} were made according to which Latin American demand for the major nutrients nitrogen, phosphoric acid and potassium around 1980/1981 will fall below 7.1 million tons. If the trend recorded between 1970 and 1974 had continued (an annual average of 12 per cent), regional requirements would have been 9.1 million tons in 1980/1981. Comparing both figures it can be seen that there is a difference of approximately 2 million tons which would not be used in regional agriculture and this is one of the effects of the fertilizer crisis.

It is still impossible to determine what the real impact of relative scarcity of and, in particular, higher prices for technological inputs - machinery and equipment, fuels, pesticides and fertilizers - is likely to be on regional agriculture, since these events are of recent date, and not before the end of the 1975/1976 crop year will the results be evident. Whatever the effects are likely to be on national agricultures, they will vary depending on the type of productive units.

The very development of the process of introducing new technology or of modernization which has been taking place, particularly in what is known as commercial agriculture, could be affected or modified by the changes taking place in the costs and profitability of the different crops or types of livestock. Such adjustments could be more or less drastic depending on trends in prices for

agricultural commodities, several of which are experiencing a slump. It is possible that changes of some importance will occur in the productive structure and in the rapidity with which technological inputs are being introduced in relation to the pattern which was being established in the region. The higher costs of mechanization could make commercial agriculture less intensive and lead to a relative increase in underemployed labour. The high price of fertilizers could lead to their more efficient use, and bring to light the low profitability in fertilizer use if these inputs are not accompanied by a technological package.

Commercial agriculture is in a position to adapt the use of its factors to the best opportunities offered by agricultural markets, for what is important to them is the profitability of their farms.

There are other productive units which for various reasons have not introduced more advanced technology or technological inputs in production, but have adopted and used some methods and inputs, particularly fertilization and chemical fertilizers, sometimes in small quantities, but enough to ensure some improvement in crops. This has been so particularly in the case of subsistence or semi-subsistence units. Since these technological innovations (use of fertilizers and improved seeds) could be easily introduced by small productive units, higher fertilizer prices are affecting one of the most effective means of raising the income of the poor peasants farmer in the region. Higher fertilizer costs limit the possibility of access of poor rural farmers to a technology which calls for little outlay and is easy to introduce. Furthermore, the effect of higher costs of technological inputs is not the same in all parts of the country nor in all the countries. Their effect seems to be greater in areas with a high level of technology, where improved seeds, agro-chemical products and machine-intensive methods are used; and less in areas of extensive farming or cattle raising.

3. Finance and agricultural credit

The major purpose of investing in agriculture is to accelerate the growth rate of production and farmer incomes through raising the level of productivity of land and labour.

Agricultural development produces important changes in the combination of the factors of production. The capital needs of the farms or other external outlay are considerable. The type of agriculture which relies heavily on the traditional use of natural resources and labour is giving way to one which is based on skilled labour and on increasingly capital-intensive structure. Unfortunately, neither ECLA nor FAO have up-to-date information nor are there regional estimates on the volume and structure of capital used in agriculture. Only partial information is available on the relationship between capital used in the productive process and product flows originating in the sector. However, such information indicates that the allocation of capital to regional agriculture is not sufficient to meet increases in demand or to make more rational use of productive resources.

This entire situation could be attributed to several causes. The preference, referred to earlier, which is given to other sectors, in particular the industrial sector, has operated to the disadvantage of agriculture and in particular of investment programmes in this sector. There are also many cases in which official policy or intra- or intersectoral institutions themselves have adopted a line which facilitated the transfer of resources from the agricultural sector the urban or

industrial sectors. In many countries agriculture continues to make important financial contributions to development as a whole through the export sector, neglecting capital formation in its own. As a rule these transfers are not direct and take place through taxation, differential exchange rates, or intersectoral price relations which are unfavourable to agriculture. The agricultures of Bolivia, Chile and Venezuela have been almost exempt of taxes, for petroleum and mining have been the main sources of tax revenue and foreign exchange. In contrast, in Argentina and Uruguay their tax contribution is high. A change, both in direct tax policies as well as in exchange policies, and more particularly in intersectoral prices, could help to stimulate the participation of the agricultural sector in the generation of savings and the financing of development, including that of its own sector.

The structural conditions of regional agriculture, with its marked inequality in the distribution of resources and income continue to be one of the most serious obstacles to the capital formation process in the agricultural sector. High-income groups enjoy luxury levels of consumption incompatible with the savings and investment requirements of the sector. Agrarian reform programmes need special financial backing. They constitute a means of not only redistributing the land or its benefits, but also of accelerating the investment process, particularly in the less efficient and extensive farms affected by the reform.

In the production schemes operating in the region, inequality in income distribution is just one of the stages in a process linked directly to the polarization of the factors of production. Among the different classes of agricultural producers, those who are engaged in more capital-intensive farming are those who own commercial type farms, geared mainly to export, with a high degree of market integration and in which modern management methods are used. The share of this relatively small group of producers in regional agricultural production seems to have increased particularly in 1973/1974, but it is also highly possible that this group constitutes a pole of attraction for the majority of capital formation opportunities, which are relatively limited in the region.

The traditional and as a rule inefficient systems of marketing also absorb or deviate resources or surpluses that the producers could capitalize to some extent. In some cases, the exploitation of producers by middle-man also affects the possibilities of improving the income of the true beneficiaries of agrarian reform, cancelling to some extent the positive effect of land distribution.

In general, the public sector has been increasing its participation in the financing of agricultural investment. The increase in government participation has been concentrated mainly in investment for increasing the area under irrigation and in the construction of infrastructure and land improvement. In addition, the financing of the direct costs of producers and the subsequent transport and distribution of produce is being increased through credit.

In spite of the increase in funds, the participation of the public sector still seems to be insufficient to meet the financial requirements of agricultural development. Although the governments have succeeded in increasing the amount of finance provided for raising the levels of medium- and long-term credit as an incentive to investment in farms, private sector self-financing is still inadequate.

Small and medium-size producers make non-monetary investment, particularly in respect of land improvement or the building of the infrastructure, when they receive assistance and incentives from the State or if they are able to form more active associations.

During the annual production cycle, the farmer must have funds to finance the expenditure required for soil preparation, the purchase of seed, fertilizers, pesticides, fuel, etc.; the payment of wages and the cost of harvesting and transport to the place of sale of his produce. The lead time between soil preparation and the sale of his produce could be 6, 8 or more than 10 months, a period during which in addition to ensuring the personal income of the farm labourers, the agricultural enterprise, whether it be large or small, must bear the inherent risks of financing the expenditure listed. These commitments are short-term ones, since the expenditure and income will be generated during the annual production cycle.

In other cases, for example the plantation of a vineyard or orchard, the purchase of breeding stock or machinery, the construction of a silo, improvement of land, are investments for which the farmer must have medium- or long-term credit.

In addition to farm financing, the agricultural sector needs to have resources to be able to carry out non-farm investment in such areas as reservoirs and canals to distribute irrigation water, penetration roads to facilitate the extension of agricultural frontiers, and collection and storage centres for zonal production. Specific development programmes must also be financed, such as agrarian reform programmes, colonization projects, agricultural research and technical assistance projects, etc.

Due to the relatively long execution and maturation period and also the size of such non-farm investment, and the high cost of the programmes and projects, in the great majority of cases they must be financed by governments from the general budget. Governments often resort to external sources of credit to obtain the funds with which to carry out investment projects in agriculture.

In sum, financing is needed in agriculture: (a) to defray the costs of the productive cycle; (b) to provide special credit terms which are related to the maturation period of the investment; (c) to prepare and execute specific credit assistance programmes for small producers; (d) to develop specific lines of production either in particular zones or at the national, or even sub-regional and regional levels, within integration schemes; (e) to stimulate applied research, provide technical assistance and training, improve marketing, etc.

(a) International financial aid

International financial aid to Latin American agriculture has increased in recent years. External financing provided by multilateral bodies and the United States to agriculture in the region amounted to 260 million dollars in 1971, which must certainly have risen to 850 million in 1975 (see table 28).

Table 28
LATIN AMERICA: EXTERNAL FINANCE PROVIDED BY MULTILATERAL AGENCIES
AND THE GOVERNMENT OF THE UNITED STATES

Sources of funds	1971	1972	1973	1974	1975
1. Total funds <u>a/</u> (millions of dollars)	2 002.9	2 386.5	2 433.1	-	-
2. Share of agriculture <u>a/</u> (percentage)	13.4	11.8	18.4	-	-
3. Agricultural financing (millions of dollars)	260.5	282.1	442.3	552.6	852.0 _{b/}
<u>Agencies' contribution to agriculture</u>					
4. World Bank <u>a/</u> (millions of dollars)	118.8	39.6	256.4	223.5	442.0
5. Inter-American Development Bank <u>d/</u> (millions of dollars)	85.7	130.5	176.5	228.3	300.0 _{e/}
6. International Development Association (millions of dollars)	56.0 _{f/}	112.0 _{f/}	9.4 _{f/}	100.8 _{g/}	110.0 _{g/}

a/ See CIES, El financiamiento externo de América Latina. Perspectivas y políticas futuras. Washington, D.C., January 1975.

b/ Only World Bank and IDA financing.

c/ See Annual Reports of the World Bank. Financial years from 1 July to 30 June.

d/ See Annual Reports of IDB.

e/ It is assumed that by the close of its financial year IDB will have lent at least this amount in 1975.

f/ Includes other agencies. Figures obtained by subtracting 4 and 5 from 3.

g/ See IDA. Request to Congress for Fiscal Year 1975. Loan targets for food and nutrition.

From a study of financing provided for agriculture by the World Bank and Inter-American Development Bank (IDB) between 1971 and 1974, it appears that loans were basically destined for agriculture and livestock credit programmes, and thus the final user has been the private sector. These programmes, together with the sanitary inspection and agricultural research and extension programmes, absorbed 46 per cent of total financing granted to agriculture by these two bodies in that period. Emphasis was also laid on the better use of natural resources through works to increase or improve the irrigated area. Twenty-eight per cent of total financing was used for this purpose. Agrarian reform and colonization programmes received 13 per cent of the total. However, in the last year under consideration, 1974, two large projects for agrarian reform were financed, one in Argentina and the other in Mexico.

Investment in marketing and agrobusiness infrastructure are included in the loans for the stimulation and improvement of production. In 1973, financing was provided for concrete projects for the construction of grain stores, meat processing plants and for various others.

The financial resources allocated to forestry and fishery development have generally been small, except in 1974, when a large loan was approved for Mexico.

Table 29 shows the destination of the annual credits granted by the World Bank and Inter-American Bank, classified according to the main purpose for which they were provided.

In 1975 ^{29/} the World Bank granted large credits to finance rural development and irrigation projects. The Bank agreed to finance three projects in Mexico, which amounted to a total of 310 million dollars. These projects will benefit over 1 million persons. The World Bank also granted credits to Bolivia (7.5 million dollars), Brazil (23.0), Chile (20.0), Colombia (40.5), Paraguay (21.0) and Uruguay (17.0). The IDB ^{29/} lent 89 million dollars to Argentina, to finance a programme of technological improvement in agriculture; Brazil received 40 million dollars for supervised credits to small and medium producers, Bolivia received 2.2 million dollars to develop pork production and Mexico 35 million for a programme to eradicate parasites affecting livestock production.

In the last five years - 1971-1975 - Latin American agriculture has received external financing amounting to almost 2,400 million dollars. In 1975, the volume of external resources will be at least 50 per cent above the level of 1974. This considerable increase reflects the greater concern for and interest in agricultural development and food production in Latin America on the part of multilateral and bilateral bodies.

^{29/} Full information was not available at the time of writing, before the end of 1975.

Table 29

LATIN AMERICA: DESTINATION OF LOANS FOR AGRICULTURE GRANTED BY THE
WORLD BANK AND THE IDB. 1971-1974

(Millions of dollars)

	1971	1972	1973	1974	Total
1. Colonization and agrarian reform	20.1	5.0	15.0	122.0	162.1
2. Natural resources development <u>a/</u>	-	79.1	120.1	155.9	355.1
3. Production development <u>b/</u>	184.4	82.6	183.2	125.9	576.1
4. Marketing and agrobusiness infrastructure	<u>c/</u>	<u>c/</u>	113.0	<u>c/</u>	113.0
5. Forestry development	-	-	-	1.5	1.5
6. Fishery development	-	3.4	1.6	46.5	51.5
<u>Total</u>	<u>204.5</u>	<u>170.1</u>	<u>432.9</u>	<u>415.8</u>	<u>1 259.3</u>

Source: ECLA/FAO Joint Agriculture Division on the basis of the annual reports of the World Bank (Budgetary year 1 July to 30 June) and the Inter-American Development Bank.

- a/ Fundamentally new irrigation projects, irrigation and drainage for new lands.
- b/ Includes agricultural and livestock development loans; financing for programmes to control foot and mouth and brucellosis; agricultural research and information programmes.
- c/ Partially included in production development loans.

(b) Agricultural credit

It is estimated that agricultural credit currently represents about a third of the gross value of agricultural production in Latin America. In some countries, particularly those which have obtained greater external financing, this proportion exceeds 40 per cent. In others, the agricultural credit/production ratio is barely 15 per cent.

National credit institutions and programmes have had to work more actively and make efforts to overcome the complex problems which arise when new financial resources must be channelled to the great mass of farmers. The proportions of producers receiving institutional credits varies between 10 and 40 per cent, and the main beneficiaries are the large and medium size producers. The small producer remains on the fringe because he is considered a risk and because of the cost of

services. For credit policy purposes ^{30/} "small farmers" are those who are socially, economically and culturally marginal, who have limited access to productive resources, credit institutions and technology and whose marketing capacity is small or zero.

Despite the praiseworthy efforts made in all countries of the region, the majority of small farmers continue to depend on relations, friends, tradesmen and moneylenders to satisfy their credit needs. The Latin American countries have not managed to set up the credit institutions, or strengthening the existing ones, to meet the needs of the mass of small farmers.

In recent years various initiatives have been taken to improve the situation. In El Salvador, Guatemala, Guyana and Paraguay new agricultural banks have been set up. The three agricultural banks in Mexico which granted direct loans to farmers and maintained their own local staff were merged to form a single institution. In Venezuela, a large amount of capital from petroleum exports has been set aside for loans to small farmers through the Agricultural Bank and other institutions.

In Brazil, the National Monetary Council decided in 1973 that banks should devote 15 per cent of their deposits to agricultural financing. Before this measure was adopted, banks only devoted 10 per cent of deposits to this end. In 1974, agricultural credits amounted to 42 million cruzeiros, almost doubled the corresponding figure for 1972, which was 22 million cruzeiros at 1974 money value. The Banco do Brasil is the financial agent for special credits to finance the renovation of coffee plantations, the PROTERRA fund for the acquisition of land, and agrobusiness and agricultural production investment. The interest rate is below the rate of inflation, so that the credits are subsidized. Thus in the case of PROTERRA the annual interest on investment credits is 7 per cent, while the current interest rate is 15 per cent. In 1974, general inflation in the country reached 27.2 per cent. Credit for land purchases has an interest rate of 12 per cent, and loans for the purchase of various modern inputs are interest-free.

In Colombia, the fifth agricultural financing law was passed in 1973; its objectives include the capitalization of agriculture through development credits. For this purpose the Banco de la República has been authorized to issue "agricultural development bonds", and the proceeds of their obligatory placement with banks goes to constitute the Agricultural Financing Fund. The commercial banks must invest no less than 15 per cent of their deposits in these bonds. Resolution 22 (1974) of the Monetary Board provides that banks which undertake to devote to agricultural development no less than 30 per cent and no more than 50 per cent of new loans will be entitled to rediscounting in the Financing Fund. The official interest rate, apart from exceptions, is 14 per cent annually for small business and 15 per cent for medium and large business. There is a one per cent interest rate on loans granted to the modern agricultural sector which is used to finance the Fund for Technical Assistance to Small Farmers. The technical assistance is supervised by the Colombian Agricultural Institute (ICA) and the Institute for the Development of Renewable Natural Resources (INDERENA).

In Chile, recent financing of agricultural production has been linked to the Government's anti-inflationary policy (inflation reached 504 per cent in 1974). It has been arranged that all agricultural credit lines are readjustable and farmers pay a real interest on money received. In addition, credit assistance has been channelled through the Banco del Estado de Chile and the commercial banks. The latter provide agricultural credit, and their operations are subject to regulations which allow the greatest possible profitability and short repayment periods. While efforts have been made to revive agricultural production, the authorities have been concerned to adjust institutional credit systems to the requirements of the agricultural sector, to which they have given a great deal of importance.

In Ecuador agricultural credit policy has developed favourably and in particular its operating mechanisms have been improved. The Banco Nacional de Fomento lent 4,800 million sucres in 1974, almost double the amount of loans to agriculture in 1971, which amounted to 2.5 thousand millions at 1974 money value. In addition to the creation of the Mechanism for Financing Funds, all the resources proceeding from various external loans were concentrated in a single fund.

Costa Rica and Panama have increased significantly the funds intended for institutional agricultural credit. The Dominican Republic has increased agricultural credit, but as in many countries of the region credit assistance mainly benefits large producers. In order to change this situation, the Government announced that it would reduce the maximum amount of credit so as to distribute financial resources better. In 1974 the Fund for National Agricultural Development was set up to increase the supply of credit for agriculture.

In Mexico, agricultural credit has been growing for a number of years in real terms. In 1960, agricultural credit represented 25.5 per cent of the value of agricultural production; in 1974 this ratio had risen to almost 50 per cent. In recent years increasing importance has been laid on this tool of agricultural policy, to which high priority is given among the goals of the agricultural plan. Credit supplied by official institutions grew at annual rates of 21, 29 and 37 per cent in the years 1971, 1972 and 1973, in which years inflation was only 3.2, 6.4 and 16.4 per cent respectively. In 1974 the National Co-ordinating Commission on Agricultural Credit was established to assign credit priorities. In 1975, in order to strengthen the rationalization of credit services, the National Rural Credit Bank was set up to replace the National Agricultural Bank and two other banks. Public investment for agriculture in the sixties was only 10 per cent of the total of such investment; in 1970 was 13.2 per cent; in 1974 it rose to 17.8 per cent and 1975, almost to 20 per cent.

In order to support small agricultural producers in Mexico, the Integrated Project for Rural Development (PIDER) was set up in recent years for the benefit of micro-regions containing about 50,000 people with very low incomes from 2 to 7 adjoining rural municipalities within the same State. In the biennium 1973-1974 133 million dollars were invested in 45 micro-regions. Greater resources will be employed in the next few years and the project will be expanded, with financial assistance from the World Bank and the Inter-American Development Bank. The PIDER is an attempt to stimulate the socio-economic development of small farmers, through integrated projects which include investment in livestock, irrigation, land and water conservation, fruit growing, livestock credits, investment in roads, marketing, electrification, health centres, education and drinking water.

In Peru, the Agricultural Development Bank, the most important agricultural bank, has increased its loans in real terms. Between 1972 and 1973 loans grew by more than 20 per cent. The ratio of agricultural credit - Agricultural Development Bank credits added to the agricultural operations of the commercial banks - to the value of agricultural production in recent years has varied between 20 and 23 per cent. The Government has stimulated agriculture through preferential interest rates, predominantly at 7 per cent annually, which was below the rate of inflation in the country. Interest rates have varied according to the destination and amount of the loan. In general, small producers pay 7 per cent interest while large businesses pay 13 per cent. The rate of interest for associations (rural producer co-operatives and the Social Agricultural Associations (SAIS)) is fixed taking into account the number of members belonging to the production unit. In addition, the Ministry of Agriculture has almost doubled its operating and investment expenditure between 1971-1972 and 1973/1974.

In Venezuela, the credit granted by the Agriculture and Fisheries Bank and by the national Government amounted in 1974 to 662 million bolivars, double the amount loaned in 1971, 318 million bolivars. Small producers received three-quarters of institutional loans granted, and used them primarily to expand cultivation of maize, rice, beans, coffee, sesame, sugarcane and for dairy improvements.

Since the majority of countries of the region have not introduced significant changes in land tenure systems, credit policies and procedures have had to be adapted to the existing situation. Present norms for the granting of credits to small producers require more guarantees than the majority of them can provide, and therefore they have a limited participation in achieving the objectives of agricultural development.

IV. PRODUCTION, FOREIGN TRADE AND AVAILABILITY OF FOOD

1. Caloric energy production and foreign trade

When ingesting a balanced diet, the human organism extracts from the food it consumes a proper combination of calories, proteins, vitamins and minerals. Calories mainly provided by carbohydrate-rich foods, supply the energy needed by the human body. Proteins are necessary for the formation and replacement of tissue. They are provided by foods of vegetable and animal origin, the latter containing a larger proportion of them.

The following analysis of food questions - with some reference to nutrition - deals with production, foreign trade and consumption expressed in terms of daily calories per capita. Thus it concerns what FAO calls "physiological demand" or nutritional requirements.

Average energy requirements depend on the structure of the population by age, sex, weight and activity. According to the latest estimates of the Joint FAO/WHO Ad Hoc Expert Committee on energy and protein requirements, the energy requirements of an adult man (20-39 years of age) weighing 64 kilos would be 3,000 calories daily and of an adult woman weighing 55 kilos, 2,200 calories a day. For the total population of Latin America, it is estimated that the regional average is approximately 2,400 daily calories per person.

In recent decades the protein deficit was considered the crux of the nutrition problem. The abovementioned FAO/WHO Committee decided that protein requirements had in the past generally been overestimated. As a result of the revisions made by the Committee, there has been a change as regards the relative importance of proteins and energy in human nutrition. The world nutrition problem today appears mainly as a lack of caloric energy, in other words of quantity, rather than quality of food.

It is difficult to estimate protein consumption in relation to requirements while diets are deficient in energy. In such conditions, part of the protein may possibly be used as a source of energy and therefore is not available for protein anabolism. In view of the physiological interrelations between energy and protein, deficiencies of the one and the other are included in the term "protein-calorie malnutrition". In any event, experts have considered that the average protein requirement in Latin America is 38 grammes daily per person.

In 1971/1973, Latin America produced 3,070 daily calories per inhabitant. In 1974, this average figure rose to 3,130 units. Production was 18 per cent higher than supply for apparent average consumption in 1971/1973 and dropped to 16 per cent in 1974. (See tables 29 and 30 of the annex.) As an average for 1971/1973-1974, the ALALC countries produced 13 per cent more calories than they consumed; the Andean Group countries produced 80 per cent of the food energy they consumed, and those of the Central American Common Market produced 12 per cent more than they consumed, a figure that rose to 22 per cent for the CARICOM countries.

Table 30 shows the countries grouped according to whether they have a surplus or deficit in production of caloric energy in relation to supply for apparent average consumption, during the period 1971/1973-1974.

Table 30

LATIN AMERICA: SURPLUS AND DEFICIT COUNTRIES IN THE PRODUCTION
OF CALORIC ENERGY

(Average 1971/1973-1974)

Surplus countries		Deficit countries	
Countries	Percentage by which calorie production exceeds supply for Latin American apparent average consumption	Countries	Percentage by which calorie production falls short of supply for Latin American apparent average consumption
Cuba	137	Jamaica	4
Guyana	128	Colombia	5
Argentina	126	Haiti	6
Barbados	75	Mexico	7
Dominican Republic	68	Trinidad and Tobago	9
Costa Rica	26	Bolivia	13
Honduras	18	Peru	18
Ecuador	15	Granada	36
Nicaragua	13	Chile	42
Uruguay	12	Venezuela	47
Brazil	10	Bahamas	55
Panama	7		
Guatemala	7		
El Salvador	6		
Paraguay	1		
LATIN AMERICA	17		

Source: Annex tables 29 and 30.

The fifteen countries with a food production surplus in terms of daily calories per capita had 57 per cent of the Latin American population - 172 million people - in 1971/1973-1974. The region as a whole produced 10 per cent more calories daily per inhabitant than it used for human consumption. Another overall feature was that domestic production - with the exception of Venezuela and Chile - represented more than four-fifths of their supply of caloric energy.

To calculate calorie exports and imports by the countries of the region to and from the rest of the world, intra-regional trade should be excluded. However, taking into account the structure and volume of agricultural exports and imports, and also the quantities involved in intra-regional trade in each product, it is clear that such trade is of little consequence within foreign trade. In 1971/1973, the countries of Latin America exported 27 per cent of the food energy they produced and imported 18 per cent of their apparent calorie consumption. In 1974, the figures were 27 per cent and 16 per cent respectively. (See again table 29 and 30 of the annex.) If this contribution by the region to feeding other regions of the world was expressed in terms of its equivalent in wheat, for example, it would represent somewhat more than 16 million tons of wheat.

In the period 1971/1973-1974, the ALALC countries had a surplus in their net foreign trade balance - 350 daily calories per inhabitant - as did the countries of the Central American Common Market and of CARICOM - 261 and 656 daily calories per inhabitant respectively - while the Andean Pact countries had a deficit amounting to 470 calories per day per person. Latin America as a whole exported 450 daily calories per person more than it imported. (See table 31.)

Countries have been classified in table 32 according to the importance of exports within their total calorie production in the period 1971/1973-1974. In 1971/1973, Cuba headed the list as it exported 85 per cent of the calories it produced; at the other extreme were Colombia, Mexico, Bolivia, Venezuela, Chile, Haiti and Bahamas, countries which exported 5 per cent or less of the caloric energy they produced.

Among the main products, sugar exports alone accounted for almost 40 per cent of calories exported. In second place, cereals - particularly wheat and maize - accounted for 35 per cent. The rest came mainly from secondary cereals, oils and fats and beef.

Sugar, in terms of calories, is the main export of Cuba, Trinidad and Tobago, Guyana, Jamaica, Dominican Republic, Nicaragua and Brazil. Cereals are the main export of Argentina and Uruguay. It should be recalled that this study refers to calories exported and not to the monetary value of exports, which explains the different importance of the products exported.

Table 33 shows the degree of dependence of various Latin American countries to make up their daily domestic supply of caloric energy per capita. The region as a whole, in the period 1971/1973-1974, imported 15 per cent of its apparent calorie consumption. The great dependence, due to food imports, of a large number of countries with a hot wet climate, and particularly some Caribbean islands and Central American countries, is apparent from a study of the import component of calories consumed by countries of the region.

Table 31
LATIN AMERICA: PRODUCTION, CONSUMPTION AND FOREIGN TRADE EXPRESSED
IN CALORIES PER DAY PER PERSON
(Average 1971-1974)

	Production	Human consumption	Exports	Imports	Net foreign trade balance
ALALC	3 035	2 686	681	332	349
ANDEAN PACT	1 859	2 339	167	637	-470
Bolivia	1 686	1 945	69	328	-259
Colombia	2 090	2 189	115	214	-99
Chile	1 717	2 960	41	1 283	-1 242
Ecuador	2 381	2 070	554	243	311
Peru	1 840	2 251	293	703	-410
Venezuela	1 354	2 554	49	1 239	-1 190
REST OF ALALC	3 481	2 819	877	215	662
Argentina	7 723	3 413	4 325	16	4 309
Brazil	2 988	2 710	472	194	278
Mexico	2 567	2 762	137	332	-195
Paraguay	2 849	2 817	295	263	32
Uruguay	3 048	2 724	674	351	323
MCCA	2 411	2 149	544	283	261
Costa Rica	3 397	2 700	1 389	691	698
El Salvador	1 998	1 884	364	251	113
Guatemala	2 127	1 995	333	201	152
Honduras	2 474	2 101	571	198	373
Nicaragua	2 967	2 617	661	311	350
CARICOM	3 513	2 857	2 058	1 402	656
Barbados	5 825	3 331	4 005	1 511	2 494
Guyana	6 242	2 738	4 215	711	3 504
Granada	1 328	2 082	424	1 178	-754
Jamaica	2 684	2 782	1 361	1 459	-98
Trinidad and Tobago	2 706	2 976	1 520	1 789	-269
OTHER COUNTRIES OF LATIN AMERICA	4 258	2 451	2 756	950	1 806
Bahamas	1 351	3 031	-	1 680	-1 680
Cuba	6 015	2 543	5 141	1 669	3 472
Haiti	2 144	2 278	33	167	-144
Panama	2 880	2 701	933	754	179
Dominican Republic	3 974	2 372	2 136	534	1 602
TOTAL LATIN AMERICA	3 101	2 640	838	387	451

Source: ECLA/FAO Joint Agriculture Division estimates based on FAO Production and Trade Yearbooks, 1974.

Table 32

LATIN AMERICA: PERCENTAGE OF CALORIE PRODUCTION EXPORTED
(Average 1971/1973-1974)

Countries with exports above the Latin American average		Countries with exports below the Latin American average	
Cuba	85	Honduras	23
Barbados	69	Ecuador	23
Guyana	68	Uruguay	22
Argentina	56	Nicaragua	22
Trinidad and Tobago	56	El Salvador	18
Dominican Republic	54	Guatemala	16
Jamaica	51	Peru	16
Costa Rica	41	Brazil	16
Panama	32	Paraguay	12
Grenada	32	Colombia	6
Regional average	<u>27</u>	Mexico	5
		Bolivia	4
		Venezuela	4
		Chile	2
		Haiti	1
		Bahamas	0

Source: Table 31.

Table 33

LATIN AMERICA: PERCENTAGE OF APPARENT CONSUMPTION OF
CALORIC ENERGY IMPORTED
(Average 1971/1973-1974)

Countries with imports above the regional average		Countries with imports below the regional average	
Cuba	66	Uruguay	13
Trinidad and Tobago	60	El Salvador	13
Granada	57	Ecuador	12
Bahamas	55	Mexico	12
Jamaica	52	Nicaragua	12
Venezuela	49	Paraguay	11
Barbados	45	Guatemala	10
Chile	43	Colombia	10
Peru	31	Honduras	9
Panama	28	Brazil	7
Guyana	26	Haiti	7
Costa Rica	26	Argentina	1
Dominican Republic	23		
Bolivia	17		
Regional average	<u>15</u>		

Source: Table 31.

The food imports of 14 countries - measured in calories - are higher than the regional average. Three countries - Cuba, Trinidad and Tobago and Granada - imported almost three times the average, and the majority of the others imported between 20 and 40 per cent of their consumption. Argentina, a country which is practically self-sufficient in food, and a great exporter of it, stands out among the countries which imported less than the Latin American average.

Wheat, while being a product of great importance in the exports of some countries, is also a fundamental import from outside the region. Wheat purchases in the period 1971/1973-1974 represented about two-thirds of the total of imported calories; oils and fats, maize, rice and beef accounted for almost all the rest of the calories imported by the region.

2. Apparent consumption of caloric energy and proteins

In 1971/1973, the average caloric energy supply per capita in Latin America as a whole exceeded average requirements by 8 per cent. In 1974 this "surplus" was 13 per cent. (See table 31 of the annex.) In the period 1971/1973-1974, the "surplus" was 10 per cent above average requirements. In the same period, the average supply of proteins per capita was 66 grammes per day.

In the ALALC countries, the domestic supply of calories was 12 per cent greater than average needs, as an average for 1971/1973-1974. The Andean Pact countries had a deficit of 2 per cent; in the case of the Central American Common Market countries the deficit was 10 per cent, while the CARICOM countries had a "surplus" of 19 per cent. (See table 34.)

On the basis of the figures shown in table 34, a distribution can be drawn between countries with deficits and those with apparent surpluses by the relationship of average apparent consumption to minimum caloric energy requirements. (See table 35.)

The grouping of countries in table 35 shows that in the period 1971/1974, 14 countries which together account for 69 per cent of the Latin American population have an apparent surplus in their calorie supply of over 10 per cent in relation to their minimum requirements. At the other extreme, 4 countries with 16 per cent of the population of the region show a food supply deficit of over 10 per cent in relation to their minimum needs.

Table 34
LATIN AMERICA: APPARENT CONSUMPTION OF CALORIES AND PROTEIN PER CAPITA
(Average 1971-1974)

	Calories (units per diem)	Proteins (grams per diem)	Calories (supplies as a percentage of require- ments) a/
ALALC a/	2 686	67	112
ANDEAN PACT a/	2 339	58	98
Bolivia	1 945	47	81
Colombia	2 189	50	94
Chile	2 960	84	121
Ecuador	2 070	47	89
Peru	2 251	56	96
Venezuela	2 554	65	102
REST OF ALALC a/	2 819	70	118
Argentina	3 413	109	129
Brazil	2 710	62	113
Mexico	2 762	66	120
Paraguay	2 817	81	121
Uruguay	2 724	95	102
MCCA a/	2 149	58	90
Costa Rica	2 700	62	120
El Salvador	1 884	52	82
Guatemala	1 995	55	86
Honduras	2 101	56	93
Nicaragua	2 617	74	117
CARICOM a/	2 857	75	119
Barbados	3 331	90	145
Guyana	2 738	63	121
Granada	2 082	56	87
Jamaica	2 782	74	125
Trinidad and Tobago	2 976	82	122
OTHER COUNTRIES OF LATIN AMERICA a/	2 451	52	102
Bahamas	3 031	88	126
Cuba b/	2 543	...	109
Haiti	2 278	52	98
Panama	2 701	63	116
Dominican Republic	2 372	49	105
TOTAL LATIN AMERICA a/	2 650	66	110

Source: ECLA/FAO Joint Division estimates based on the FAO Production and Trade Yearbooks, 1974.

a/ Percentage relationship between consumption of calories and the minimum calorie requirement estimated by FAO for each country. The average minimum requirement for the region as a whole is 2 400 calories daily. This comparison does not take account of food wastage in homes, restaurants, etc., which may amount to as much as 15%.

b/ Estimate.

Table 35
 LATIN AMERICA: COUNTRIES SHOWING SURPLUSES OR DEFICITS IN
 THEIR CALORIC ENERGY SUPPLY
 (Average 1971/1974)

Surplus		Deficit	
Over 10 per cent	Under 10 per cent	Over 10 per cent	Under 10 per cent
Argentina	Cuba	Bolivia	Colombia
Bahamas	Dominican Republic	Ecuador	Haiti
Barbados	Paraguay	El Salvador	Honduras
Brazil	Venezuela	Guatemala	Peru
Costa Rica		Granada	
Chile			
Guyana			
Jamaica			
Mexico			
Nicaragua			
Panama			
Paraguay			
Trinidad and Tobago			
Uruguay			

3. Food demand by income and social group

At first glance it would seem from the figures in table 34 that a number of countries do not have a nutritional problem of any consequence; the average levels of caloric energy supply could be regarded as satisfactory. However, these national averages hide an unbalanced distribution of food among the population, as a result of which vast sectors of the population suffer from nutritional deficiencies.

Table 36 has been prepared, on the basis of available estimates of income distribution in Latin America and information on consumer behaviour in the different income strata from household budget and expenditure surveys, provide a very rough estimation of the meaning of the calorie deficit or surplus in relation to minimum requirements at the regional level.

Table 36
 LATIN AMERICA: ESTIMATES OF DAILY CALORIE CONSUMPTION
 BY INCOME STEPS
 (Average 1971/1974)

Income steps (percentages of population)	Share of total income (percentage)	Per capita consumption of calories <u>per diem</u> (units)	(-) deficit or (+) surplus in relation to minimum requirements <u>a/</u> (units)
(a) Very low	20	2.5	1 700 - 1 850
(b) Low	30	11.4	2 100 - 2 300
(c) Middle	30	25.1	2 500 - 2 600
(d) High	15	31.1	3 000 - 3 200
(e) Very high	5	29.9	4 100 - 4 700
	100	100.0	2 600
			(+) 200

Source: ECLA/FAO Joint Agriculture Division.

a/ 2,400 calories daily per capita.

It should of course be recalled that the table represents a regional aggregate in which the two or three most populated countries of the region weigh heavily. With this qualification, the following aspects of the table should be noted:

- Consumption in the "very low" group (20 per cent) shows a very pronounced calorie deficiency. It must be assumed that some of the protein consumed are used primarily as a source of energy, and is therefore not used wholly for its own particular functions.

- The caloric energy consumption of the "low" group (30 per cent) is below minimum requirements. Proteins consumed by members of this group are also used as a source of energy, although to a lesser extent.

- The calorie consumption of the "middle" group (30 per cent) is practically equivalent to the regional average.

- The calorie consumption of the "high" group is approximately that shown in the statistics of average consumption in the developed countries.

- In the "very high" stratum, the 5 per cent of the population with 30 per cent of income, the high apparent consumption of calories revealed by household budget surveys is accompanied by a great wastage of caloric energy.

The estimates in table 36 give a different and much more serious picture of the food deficit in Latin America than appears from the national averages alone. In the appraisal of the world food situation 31/ it was estimated that in 1970 there were 36 million persons in the region facing protein-calorie malnutrition. This estimate was rather conservative and only included 13 per cent of the Latin American population. If this proportion continued until 1975, there would be 42 million people facing protein-calorie malnutrition. This deficit could be greater still, but it is impossible to draw exact conclusions, on the basis of a regional estimate, concerning the number of persons in danger of malnutrition, because very little is known about family distribution within each income step. Possibly an unknown number of families included in the "very low" and "low" consumption groups have a more satisfactory calorie intake.

The analysis has hitherto dealt with the distribution of caloric energy among the different income groups. The most important factors affecting food demand will be studied below.

As household income and expenditure rise, the proportion of income spent on food declines, even though expenditure per person on food rises in absolute terms. Higher-income families can satisfy their wants for more food, and their patterns of expenditure shift towards more costly, varied and protein-rich foods. A growing proportion of that expenditure is attributable to marketing and servicing costs associated with more highly processed foods.

In Latin America, the national average of spending on food varies between 42 per cent and 60 per cent of total household expenditure. This proportion rises to over 75 per cent in the case of the lowest income families and falls to roughly 20 per cent for the highest income families. Expenditure on food as a function of income has an elasticity averaging between 0.6 and 0.7 for Latin America as a whole.

Total demand for food unquestionably rises with a rise in income: but as expenditure elasticities vary according to the product, there will also be changes in the structure of total demand for food. As a result, any change in income distribution will result in changes in aggregate food demand, and those changes in turn will tend to cause modifications in the composition of supply and, over time, in production.

In the majority of countries for which information is available, caloric energy consumption seems to be higher among the rural population. No uniform pattern could be observed in total protein consumption among rural and urban populations, but it is clear that consumption of animal proteins is much higher in urban areas. Again, consumption of fats is generally much higher in urban areas.

A large proportion of rural consumption generally consists of food produced by the consumer himself. The local ecology and climate not only limit the variety of the diet, but also cause seasonal fluctuations in the availability of food. Thus the rural population may be affected by severe shortages of food, and hence of energy and nutrients during certain months of the year (seasonal malnutrition).

31/ United Nations, World Food Conference, E/Conf.65/3, Rome, 1974.

Apart from family income, the composition and size of the family affect the pattern of food consumption. It is difficult to analyse these variables since variations in family composition by age and sex require the conversion of household members into consumption units by using scales which differ from one commodity to the next. Nonetheless, the conclusion reached by FAO 32/ from a number of budget surveys is that increases in family size are accompanied by less than proportionate increases in food demand. Rural diets are characterized by heavy dependence on basic foods (cereals, roots and tubers). Urbanization generally brings with it diversification of diet, including larger quantities of fruits, meat, eggs, fish and fats and oils. This may be attributed in part to the higher level of urban incomes, but also to the greater availability of a larger number of food products.

While much of rural demand is non-monetary, urban demand for nearly all products depends on food supply systems. In Latin American countries in recent years there has been growing concern to formulate programmes and policies to plan and regulate the food supply. A number of countries have taken a variety of measures to this end, which are leading to a review of the functions and activities of the State bodies responsible both for collecting and storing and for distributing food among consumers.

Increases in production, particularly in the case of foodgrains, have revealed inefficiency or inadequacy of the systems of harvest collection, storage or transport. In a number of countries of the region this has led to new investment projects related to domestic marketing, the exportation of agricultural products, port installations, storage, collection centres, etc.

Changes in support price policies and the creation of new machinery in connexion with such policies is accompanied, in a number of countries, by the allocation of funds to enable the purchasing powers which complement them to operate. Where there has been growing State concern for the food supply, this has led to an effort to achieve greater control over harvests through official purchasing entities and the gradual expansion of the storage infrastructure which is vital for them to be able to intervene effectively in local markets.

Some of this new marketing infrastructure is being located in ports where there is a need for installations to facilitate imports or exports; on a lesser scale, storage premises are also being built at the farm level to mitigate the marked contrast which used to exist between the large storage capacity in urban terminals and the very poor facilities in the producing zones.

To examine more deeply the food situation of the countries of the region, it is useful to study in greater detail the composition of their diet, and single out a few of the common features with which to establish a typology of diet based on the food supply and its contribution to domestic calorie consumption. (See table 32 of the annex.)

Four groups of countries can be distinguished. The most clearly defined is constituted by five countries: El Salvador, Guatemala, Haiti, Honduras and Mexico, whose diet is based on cereals/sugar. In the first four countries, maize provides two-fifths of calorie consumption - rising to one-half in Guatemala - while in Mexico it exceeds one-third. Calories from animal products represent a little more than one-tenth of energy intake, except in Haiti where it scarcely reaches 6 per cent, which thus has the lowest consumption of animal products in Latin America.

A second group of four countries can be defined as basing its diet on cereals/sugar/tubers and roots. It is made up of three countries: Bolivia, Ecuador and Peru. The three groups of products satisfy at least three-fifths of calorie consumption. In Ecuador and Peru the contribution of animal products to calorie intake is higher than in the countries belonging to the previous group.

Twelve countries make up a third group which accounts for about half the Latin American population; they are: Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Guyana, Jamaica, Nicaragua, Panama, Paraguay, Trinidad and Tobago and Venezuela. These countries are characterized by a diet based on cereals/sugar and animal products. The group is not very homogeneous. In Brazil and Paraguay, the consumption of tubers and animal products is predominant. The Dominican Republic has a relatively better balance between cereals, tubers and animal products. Cereals and animal products predominate in the other countries of the group.

A fourth and last group, composed of three countries - Argentina, Chile and Uruguay - bases its diet on wheat/animal products and sugar. Argentina and Uruguay have a fairly homogeneous diet. Animal products provide roughly one-third of total calories, slightly less than the amount supplied by wheat. In Chile, wheat supplies two-fifths and animal products one-fifth.

4. Food price developments

In a context of widespread inflation, from 1973, and particularly in 1974, consumer prices of food rose more rapidly than the total cost of living in almost all Latin American countries. Table 37 shows the size and progression of the changes in consumer prices for all items and food in 22 countries of the region.

In the majority of the countries, inflation particularly advanced in the first half of 1974. Inflation rates in that year were higher than in the previous year in all Latin American countries. (See again table 37.) Food prices ceased to be a stabilizing or limiting force on inflation. The full extent of the harm caused to consumers by the rise in food prices can be appreciated if it is recalled that in many countries of the region food purchases reach an average of up to 60 per cent of total household expenditure. This percentage is still higher, and may exceed 75 per cent, among the poorest groups of the urban population, whose hardship and nutritional deficit have been increased by the rises in food prices. When the proportion of household expenditure spent on food is very high, it virtually reaches a ceiling, and faced with price rises poor families attempt to purchase cheaper food, especially secondary cereals, root and tubers, to maintain at least the volume of their food intake.

Table 37
LATIN AMERICA: ANNUAL CHANGES IN CONSUMER PRICES
(Percentages)

Country	All goods and services						Food					
	1960	1965	1970	1971	1972	1973	1960	1965	1970	1971	1972	1973
	to	to	to	to	to	to	to	to	to	to	to	to
	1965	1970	1971	1972	1973	1974 _{a/}	1965	1970	1971	1972	1973	1974
Argentina	23.0	19.4	34.7	58.5	60.3	23.5	23.0	18.3	41.7	63.1	55.1	33.5 b/
Bartados	-	-	7.5	11.8	16.9	38.9	-	-	-	-	-	-
Bolivia	5.1	5.9	3.7	6.5	20.9	62.8	2.1	7.8	4.0	6.3	21.1	62.8 c/
Brazil	60.0	28.0	21.1	16.7	12.4	27.2	60.0	26.0	23.9	22.3 d/	16.1	40.7 e/
Colombia	12.4	10.1	7.1	14.3	22.8	24.4	13.4	9.2	7.5	19.2	31.9	27.1 f/
Costa Rica	2.3	2.5	3.0	4.7	15.2	39.8 g/	2.2	3.8	3.7	1.2	21.6	27.6 h/
Chile	27.0	26.0	20.1	77.8	333.0	504.7	30.0	26.0	23.8	115.2	376.0	513.7 i/
Dominican Republic	2.7	1.0	2.3	7.8	15.1	13.1	2.5	0.1	5.1	6.0	18.4	13.6 j/
Ecuador	4.0	4.6	8.4	7.9	12.9	23.3	4.9	6.0	6.5	11.1	20.3	28.3 k/
El Salvador	0.2	1.1	0.3	1.8	6.4	16.9	1.1	2.2	0.3	1.1	7.5	16.6 l/
Guatemala	0.1	1.5	-0.5	0.7	14.4	16.5	0.1	1.7	-1.9	-0.3	19.2	21.8 m/
Guyana	1.9	1.5	2.1	4.5	8.9	17.4	2.3	2.8	2.3	6.0	18.4	17.4 n/
Haiti	3.7	1.7	10.3	3.2	22.7	14.9	4.1	1.8	6.1	10.2	27.4	13.7 o/
Honduras	2.7	1.6	2.3	5.2	3.2	13.3	3.2	1.8	3.8	8.1	2.0	15.1 p/
Jamaica	2.9	4.3	6.7	5.8	19.9	26.4	2.4	4.7	7.9	3.2	25.8	26.4 q/
Mexico	1.9	3.5	3.2	6.4	16.4	22.5	1.6	3.8	1.9	6.3	18.7	24.5 r/
Panama	1.1	1.6	1.8	5.6	6.9	16.8	1.4	1.7	2.4	4.6	9.9	21.3 s/
Paraguay	...	1.2	5.0	9.2	12.8	25.2	...	0.3	8.6	11.1	21.6	18.9 t/
Peru	9.4	7.8	6.8	7.2	9.5	16.9	10.5	7.1	6.9	7.4	10.1	17.6 u/
Trinidad and Tobago	2.2	3.8	3.5	9.3	14.9	22.1	2.1	3.7	4.6	11.5	19.0	22.1 c/
Uruguay	16.2	60.0	23.9	76.5	97.0	76.9	13.1	60.0	24.5	93.8	102.8	53.4 t/
Venezuela	1.7	1.6	2.7	3.0	4.3	8.5	1.7	0.9	2.9	5.9	9.2	13.8 u/

Source: FAO, *The state of food and agriculture*, 1974.

- a/ Source: International Monetary Fund, *International Financial Statistics*, vol. XXVIII, No 9, September 1975.
b/ Source: *Economic Survey* No 1459, 7 January 1975, Buenos Aires. Increase from December 1973 to December 1974.
c/ Assuming the same change as in the index of prices "for all items".
d/ Source: Fundación Getulio Vargas, *Conjuntura Económica*, (prices of agricultural products).
e/ Source: Fundación Getulio Vargas, *Conjuntura Económica*, (prices rise between November 1973 and 1974).
f/ Source: *Revista Banco de la República*, February 1975, Bogotá.
g/ Source: IMF, *op. cit.*, (wholesale prices).
h/ Source: *Quarterly Economic Review*. Nicaragua, Costa Rica, Panama No 3/1975. Food prices of the last quarters of 1973 and 1974.
i/ Source: Banco Central de Chile. *Boletín Mensual*, June 1975, Santiago.
j/ Source: *Quarterly Economic Review*. Cuba, Dominican Republic, Haiti, Puerto Rico. No 2/1975. Food prices in the last quarters of 1973 and 1974.
k/ Source: *Quarterly Economic Review*. Colombia, Ecuador No 1/1975. Food prices in the last quarters of 1973 and 1974.
l/ Source: Banco de la Reserva, El Salvador.
m/ Source: *Quarterly Economic Review*. Guatemala, El Salvador, Honduras No 3/1975. Food prices in the last quarters of 1973 and 1974.
n/ Source: *Op. cit.*, see footnote j/.
o/ Source: *Op. cit.*, see footnote m/.
p/ Source: *Quarterly Economic Review*. Mexico No 3/1975. Food prices in the last quarters of 1973 and 1974.
q/ Source: *Op. cit.*, see footnote h/.
r/ Source: *Quarterly Economic Review*. Uruguay, Paraguay No 2/1975.
s/ Source: *Quarterly Economic Review*. Peru, Bolivia No 1/1975. Food prices in the third quarters of 1973 and 1974.
t/ Source: *Op. cit.*, see footnote r/. Food prices in the third quarters of 1973 and 1974.
u/ Source: Banco Central de Venezuela. *Boletín Mensual*, Caracas, March 1975.

Between 1970 and 1971, in half of the Latin American countries and for 89 million people - 32 per cent of the total - the rise in consumer prices for all items was less than 5 per cent. Food prices rose by the same proportion. (See table 38.) In 1972, there were less countries with low annual rises than in the previous year. A trend towards more pronounced annual rises began to emerge, and this was also more obvious in food prices. In 1972, 162 million persons - 57 per cent - were affected by rises in food prices of over 15 per cent in relation to 1971.

In 1973 the rising trend became steeper: more than two-thirds of the Latin American countries felt the effects of an annual rise over 10 per cent in consumer prices. This increase affected 259 million people - 89 per cent of the Latin American total. For Latin America as a whole, excluding Barbados, Cuba and Nicaragua, general inflation reached a regional average of 30 per cent, while the rise in food prices in the region reached 41 per cent. In that year, the rise in consumer prices of food in almost half the countries of the region was over 15 per cent, which affected 258 million persons. This higher rise of food prices - 8 per cent above general inflation - acquired alarming characteristics in a number of countries, and this was when policy measures and controls were adopted and applied in an attempt to check the high rate of price rises.

In 1974, the acceleration of inflation extended to four-fifths of the countries of the region, in which the annual rise in consumer prices for all items was over 15 per cent. For over half the countries the rise was above 20 per cent and severely affected 248 million people, 82 per cent of the total. Inflation reached 34.6 per cent in the region as a whole. In that year, in seven out of ten countries food prices rose more than the group of all goods and services which constitute the index of consumer prices. No country had inflation in food prices below 10 per cent, and 13 countries - with a population of 250 million people - were affected by a rise of over 20 per cent in food prices. Food price inflation reached a regional average of 47.8 per cent and was 13 per cent above general inflation.

A comparison of events in 1973 and 1974 shows that in 1973 the rises in food prices had a greater impact and affected a larger number of countries. The higher cost of food must have had harmful repercussions on the nutritional level of the population, particularly in the countries most affected by the price rise, and primarily the low income groups in them. It would seem that in 1975 food prices may have risen slightly less than overall inflation, but that impression has not yet been confirmed.

The acceleration in the rise of international agricultural prices was reflected in the rise of domestic prices in various countries of the region, although not in a strictly parallel fashion. Domestic prices of various foods for which demand is met by domestic production together with an import component began to be more closely tied to international market levels.

Table 38
LATIN AMERICA: ANNUAL CHANGE IN CONSUMER PRICES

Increase in prices (percentage)	1971-1970		1972-1971		1973-1972		1974-1973	
	Number of coun- tries	Mil- lions of persons	Number of coun- tries	Mil- lions of persons	Number of coun- tries	Mil- lions of persons	Number of coun- tries	Mil- lions of persons
a) <u>Prices of all goods and services a/</u>								
0 to 5	11	89	6	29	2	14	-	-
5 to 10	6	47	10	94	4	19	1	12
10 to 15	1	5	2	24	5	120	3	14
15 to 20	-	-	1	101	5	66	5	27
20 and over	4	135	3	37	6	73	13	248
b) <u>Food prices b/</u>								
0 to 5	11	85	5	15	1	3	-	-
5 to 10	6	57	7	92	3	17	-	-
10 to 15	-	-	4	15	1	14	3	23
15 to 20	-	-	1	24	6	172	5	25
20 and over	4	135	4	138	10	86	13	253

Source: Table 37.

a/ 22 countries. Does not include Bahamas, Cuba, Granada and Nicaragua.

b/ 21 countries. Does not include Bahamas, Barbados, Cuba, Granada and Nicaragua.

The biggest annual changes in international market prices occurred in 1973 and 1974, especially in rice, sugar, wheat, edible oils, feed grains and recently in bananas. The general rising trend begun to fall at the end of 1974 and continued downwards in 1975. It is very unlikely that international agricultural prices will return to their former levels. (See table 39.)

Table 39

ANNUAL RISES IN AVERAGE WORLD PRICES OF SOME
AGRICULTURAL PRODUCTS

(Percentages)

Product	1972-1973	1973-1974	1974-1975 <u>a/</u>
Wheat <u>b/</u>	52	95	-8
Rice <u>c/</u>	29	242	-25
Maize <u>d/</u>	38	61	14
Soybeans <u>e/</u>	66	19	1
Edible oils and fats <u>f/</u>	74	82	-34
Coffee <u>g/</u>	31	3	24
Cocoa <u>h/</u>	96	45	-23
Bananas <u>i/</u>	3	-7	106
Sugar <u>j/</u>	13	187	-29
Sorghum <u>k/</u>	35	53	15

a/ Estimates on the basis of prices in the first 9 months of 1974.

b/ United States, No 2, winter hard, ordinary protein, FOB Gulf ports.

c/ Thai, 5 per cent white rice, FOB Bangkok.

d/ United States, No 2, yellow, FOB Gulf ports.

e/ United States, No 2, yellow, FOB Gulf ports.

f/ On the basis of FAO indices for edible oils and fats and saponifiers.

g/ Beans, Santos 4, FOB, pound in New York.

h/ Bahia, FOB, pounds in New York.

i/ Central America, FOB importer to distributor price in United States port of entry.

j/ Crude sugar, FOB, pound in New York, including import duty.

k/ United States, No 2, FOB Gulf ports.

As was stated in chapter I, a number of countries have purchased growing volumes of some foods annually. These larger amounts brought in from the world market partially explain the rise in food prices. Brazil, Chile, Ecuador, Guyana, Haiti, Mexico and Trinidad and Tobago imported larger quantities of wheat. Brazil, Chile, Colombia, Dominican Republic, El Salvador, Mexico, Panama, Peru, Uruguay and Venezuela imported larger volumes of edible oils. Greater quantities of maize for direct human consumption and animals feeds were imported by Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Guyana, Jamaica, Mexico, Panama, Trinidad and Tobago and Venezuela.

The higher world prices of products traditionally exported by countries of the region must also have had some effect on the rise in domestic food prices. It has not been easy for food exporting countries to hold down domestic prices - to the consumer and/or producer - for products whose prices are rising on the international market.

A number of countries have adopted various policy and intervention measures, in particular payment of subsidies and price controls, to check the rise in food prices. In general these measures have been relatively successful and have somewhat mitigated the effects of the rises in food prices, but without tackling the causes, which include, particularly for remote zones, the rise in freight charges.

There is no quick and easy way to check the rise in consumer prices for such products which will meet the twin objective of holding prices within the bounds of controlled inflation while protecting the income of producers and stimulating them to increase production.

Some countries have taken pains to adjust agricultural producer prices proportionately - or more - to the growth of their inflation, and to the higher prices of inputs and fuels, so that they retain their value in real terms. Behind this reaction is the belief that without this kind of adjustment food production cannot be expected to rise with the speed, and in the particular pattern of production, fixed or desired by governments.

The effects of the changes in agricultural price levels has been different for the big and small producers in Latin America. There are signs that large and medium-size agricultural producers - which have become the spearhead of technological improvement - have benefited more than the small producers, because they generally account for about three-fifths of the harvest annually placed on domestic markets. Although small producers have few inputs, they have probably been worst hit by the recent rise in the prices of such intermediate items, because of their limited saving capacity and access to credit.

Awareness of this fact has in particular led governments to pay growing attention to the need to orient and devote specifically to small producers a larger share of the support and technical assistance programmes and projects to be implemented in the agricultural sphere. Countries with floor or support price programmes have been revising the annual levels of such prices, to ensure that producers - perhaps under pressure from them - have a better profit level. In some countries these revisions have been periodical, so as to compensate for rises in production costs and adjust prices to market expectations. In addition, in some countries price differentials have been established by producing zone to benefit the most backward or remote zones.

The accelerated rate of inflation, the effects of the international economic situation and the degree of openness of international markets - especially the restrictions placed by the EEC on beef imports - have helped to create imbalances in relative prices - among agricultural products and also among such products and inputs - which in general it has been impossible to correct with the necessary speed.

The products usually included in support price programmes are wheat, rice, maize, sorghum, beans, soybeans, peanuts, sunflower seeds, linseed and cotton. The biggest expansion of this kind of programme occurred in Venezuela, in June 1974, when the agricultural marketing corporation increased the number of products covered by guaranteed prices from 9 to 22, and undertook to purchase all the production offered.

5. Recent events in food and nutrition policies and programmes

Governments of the region have been paying increasing attention to problems related to unsatisfactory food and nutrition levels. Nevertheless, the overall problem still does not appear to have been tackled adequately, since, as was indicated in section IV.3, there are still vast sectors of the population of the region whose nutritional levels are below the minimum requirements. Various countries are dealing with the problem through far-reaching food policies with broad social content. Often such policies come within national food and nutrition programmes and thus in many cases they are included in economic and social development planning.

Nevertheless, at the sectorial level and as a result of various events of multinational significance, generally within the framework of integration schemes, the need has become clear to co-ordinate action among the various governments bodies which deal with problems related to food. This is particularly true of the Ministries of Agriculture and Health, which concordantly with the institutions and organizations responsible for planning, the economy and domestic and foreign trade, have already taken some steps in this direction. There is at least awareness and a desire for a better understanding of the causes and consequences of malnutrition.

The international specialized agencies and financial bodies are also supporting initiatives to solve the nutrition problem, at the request of the countries themselves. This collaboration mainly takes the form of specific programmes and projects. Some advances have also been achieved through bilateral aid, and sub-regional bodies are also concerned in the question.

At the third meeting of Ministers of Health of the Andean Area held in Caracas in November 1974, particular attention was paid to the topic of malnutrition and emphasis was placed on the great importance of the formulation and implementation of national food and nutrition policies. At that meeting the ministers decided to set up the Permanent Advisory Committee on Food and Nutrition of the Andean Area, which held its first meeting in May 1975.

The six countries of the Andean Group are attempting to put into practice a multisectorial approach to the food and nutrition problem, for which they have prepared a preliminary sub-regional diagnosis and outlined some specific policies and actions. In the middle of 1973 they held the first sub-regional Conference on National Food and Nutrition Policies, in which views and experience relating to

policies, programmes and projects were exchanged, the means to take advantage of the machinery for Andean integration were studied, and common lines of action were defined in connexion with food trade and the use of technology to increase production.

Mention should also be made of the studies carried out in Brazil to acquire a better understanding of the food and nutrition situation in that country, including a survey - the national household expenditure survey carried out by the F.I.B.G.E. - which covered 65,000 families, at the national level, belonging to different socio-economic strata in rural and urban zones. Paraguay and the Dominican Republic are in the process of preparing comprehensive studies. Colombia completed a national food and nutrition plan, which was approved by the President and the National Economic and Social Policy Council in March 1975; the plan is being carried out through a group of specific programmes and projects connected with food production, processing and distribution, nutrition education, subsidized distribution of food, health and environmental hygiene. The country has requested financial help from the World Bank and other international and bilateral financial aid bodies to carry out the plan. Bolivia and Peru are carrying out interesting programmes in some of their provinces. In March 1974, Chile set up the National Food and Nutrition Council (CONPAN), whose essential purpose is to define a national food and nutrition policy to be incorporated in the national economic and social development plan. The food assistance offered to the vulnerable population groups - infants, pre-school children, school children, pregnant and lactating women - is channelled through three basic systems: the national complementary food programme carried out by the national health service; the school food programme; and the food programme of the National Nursery Board.

In addition to the inclusion of food problems in planning, efforts are being made in some countries to improve the institutional structures and legislation connected with food and nutrition. These efforts include the creation of the Ministry of Food in Peru, together with the organic law for the food sector, which was promulgated in 1974 and whose regulations were established in 1975. In various other countries there is an attempt to give greater organic unity to the institutional system for the creation and co-ordination of food policies. There is also an effort to find ways to rationalize further the control of the quality and nutritional content of foods and of food information, particularly children's foods.

The interagency project for the promotion of national food and nutrition policies was set up by a number of United Nations specialized agencies in response to the requests of Latin America Ministers of Agriculture and Health expressed at different interamerican meetings. The project began its activities in 1971 as an interagency group made up of representatives of ECLA, FAO, PAHO/WHO, UNESCO and UNICEF. The second phase began in 1975, with larger financial resources and the creation of a group of experts in different fields, which will make it possible to collaborate more extensively with governments of the region. This project has made a positive contribution to knowledge of the food and nutrition situation in Latin American countries and to the formulation of national policies. The project has collaborated in some of the action taken by governments on food and nutrition.

Finally, emphasis should be laid on the need to include food and nutrition activities within overall economic and social planning. Perhaps the most substantial of recent achievements is the explicit recognition by the majority of countries of the region that national food and nutrition plans should be an

integral part of national development programmes. As was pointed out above, a number of efforts in this direction have been made in the region. Nevertheless, it is clear that there is still a long way to go before the problem of malnutrition in Latin America is eradicated.

6. Food demand outlook

Domestic demand for food, in terms of calories, increased in Latin America between 1961 and 1974 at an average rate of 3.6 per cent annually. In the same period, population growth was 2.9 per cent, with the result that per capita demand rose at an annual average rate of 0.7 per cent during those 12 years.

FAO 33/ has made projections of food demand in Latin America to 1985 according to three hypotheses. In the first, the effect of population and income factors on food demand are singled out; with zero income, demand will grow purely as a result of population growth and will therefore increase at an annual rate of 2.8 per cent. In the second, it is assumed that income will continue to grow at least according to the past trend: extrapolation of the trend gives an annual increase in demand of 3.6 per cent. The third assumption is that income will be higher than trend income, and will cause food demand to grow at an annual rate of 3.8 per cent.

Applying these three hypotheses to the apparent consumption of 2,600 calories per capita, average 1971/1973-1974, it appears that caloric energy demand could reach 2,840 and 2,900 daily calories in the last two hypotheses described above. The first entails no change in the present level.

The most important assumption in these hypotheses is that income distribution remains constant, i.e., the present disparities in distribution do not change during the projection period. FAO, in its perspective studies of agricultural development in South and Central America, examines the possible effect on food demand of a moderate and of a more radical change in income distribution. The results show that in the first case, global demand would be about 10 per cent above the demand resulting from income growth without redistribution. In the second, that figure is 14 per cent. Moreover, both cases imply changes in diet structure and food production. These results give at least an idea of the possible size of the effect which income redistribution may have on food demand.

The estimate of the nutrition situation by income group shown in table 36 may be correlated with the FAO food demand projections and the effect on demand of income redistribution, on the basis of which a set of hypotheses may be constructed - without pretending to be a feasibility study, which would require many other elements - to give a picture of possible food demand in the region if the aim is to improve the nutrition situation of the lowest income groups.

The explanation of the set of hypotheses shown in table 40 is as follows:

Hypothesis A corresponds to extrapolation of the trend and has the following implications by income group:

33/ FAO, Ibid.

Table 40

LATIN AMERICA: HYPOTHESIS ON THE AVAILABILITY OF CALORIC ENERGY, BY INCOME STEP

Population strata (percentage)	Daily calories per capita					Annual growth rates 1971-1974 to 1985		
	Estimated average availability 1971-1974	1971-1974 to 1985			Hypoth _{esis} C c/	Hypoth _{esis} A a/	Hypoth _{esis} B b/	Hypoth _{esis} C c/
		Hypoth _{esis} A a/	Hypoth _{esis} B b/	Hypoth _{esis} C c/				
Very low 20	1 850	2 160	2 400	2 730	1.2	2.2	3.0	
Low 30	2 300	2 630	2 830	3 090	1.0	1.6	2.3	
Middle 30	2 600	2 880	2 960	3 160	0.8	1.0	1.4	
High 15	3 350	3 620	3 350	3 350	0.6	0.0	0.0	
Very high 5	4 700	4 960	4 700	4 700	0.4	0.0	0.0	
<u>100</u>	<u>2 600</u>	<u>2 880</u>	<u>2 960</u>	<u>3 160</u>	<u>0.8</u>	<u>1.0</u>	<u>1.4</u>	
Total population					2.8	2.8	2.8	
Total caloric demand					3.6	3.8	4.2	

Source: ECLA/FAO Joint Agricultural Division estimates based on the FAO Production and Trade Yearbooks, 1974.

a/ Extrapolation of the income growth trend.

b/ Assuming a higher income growth and constant income distribution.

c/ Assuming higher income growth combined with the possible effect on food demand of income redistribution.

(a) The level of per capita calorie consumption increases slightly in the very high (5 per cent) and high (15 per cent) income groups. In practice this would mean greater availability or purchase of foods but not necessarily a higher calorie intake.

(b) The calorie consumption of the middle group (30 per cent) rises in the same proportion (0.8 per cent annually) as the regional average.

(c) The calorie consumption of the low income group (30 per cent) rises slightly (1.0 per cent annually) more than the regional average; and

(d) The lowest income group (20 per cent) increases its calorie intake at an annual rate of 1.2 per cent, which would be determined both by the higher propensity to spend on food characteristic of this population stratum and by its greater food requirements.

The implications of hypothesis A are that in 1985 only the poorest 20 per cent of the population of the region would be below the average calorie intake requirements (2,400 units daily per capita). This means that in 1985 about 85 million persons would continue to suffer from malnutrition. Extrapolation of the trend shows a somewhat better food situation in the future than at present, but there would continue to be a calorie consumption deficit in Latin America.

Hypothesis B assumes income growth higher than trend income and the possible results of some government action to improve the nutrition level of the low income population groups. In this hypothesis, per capita calorie consumption grows by 1 per cent annually, which implies:

(a) That the level of calorie consumption per capita in the richest groups (20 per cent) does not rise. This does not mean that they may not improve the quality of their diet and consume a greater proportion of animal and fish products, and reduce wastage.

(b) That the rise in the calorie consumption of the middle-income group (30 per cent) is equivalent to the regional average, i.e., one per cent annually.

(c) That the low income group (30 per cent) increases its calorie intake at a higher rate than in the trend hypothesis and reaches 1.6 per cent annually.

(d) That the lowest income group (20 per cent) increases its calorie intake at a rate of 2.2 per cent annually, which implies a rise in consumption 11 per cent above extrapolation of the trend.

The result of hypothesis B would be that in 1985 threat of malnutrition hanging over 85 million of the lowest income population of Latin America would be removed. The average daily calorie intake in Latin America could reach 2,960 units. If the basic assumption of this hypothesis were to become the objective of a strategy to eliminate malnutrition in the countries of Latin America, they would have to apply a set of policy measures to alter the trend. These measures would call for not only greater exactness of the nutrition goals in national agricultural planning, but also the introduction of changes in external food trade policy and, most particularly in employment and income distribution policies. In many cases it would also be necessary to expand special food and nutrition programmes intended

to channel rationally food supplies to the most vulnerable and needy population groups. In other words, this change would not merely be the result of a favourable evolution of specific socio-economic parameters, but rather the outcome of planned actions in favour of the lowest income strata. This appears to be the most realistic hypothesis.

Hypothesis C is more of an illustration, and is the most radical. Income growth is assumed to be the same as in hypothesis B, but is combined with the possible influence on food demand of income redistribution. Calorie consumption per capita is assumed to reach a level of 3,160 units daily, the average level of present consumption in Argentina and Uruguay. This hypothesis results in an average regional increase of 1.4 per cent annually. Its other implications are:

(a) That the level of calorie consumption per capita of the richest groups (20 per cent) will not rise. The same remarks as in hypothesis B apply.

(b) The increase in consumption of the middle-income group (30 per cent) will be the same as the regional average (1.4 per cent annually).

(c) The low income group (30 per cent) will have an annual growth of 2.3 per cent; and

(d) The calorie intake of the lowest income group (20 per cent) will grow at a rate equivalent to 3.0 per cent annually. As a result this group would have a food consumption of 2,730 calories daily, i.e., 230 more than the minimum requirements and 880 calories more than in 1971/1973-1974.

As was pointed out above, the average food diet in Latin America is characterized by its high proportion of cereals, sugar, animal products and roots and tubers. Table 41 shows a rough approximation, by volume, of apparent human consumption of the principal food products in the region. It is possible to quantify the implications, in terms of volume, of the results of the set of hypothesis on the possible availability of food energy.

Hypothesis A (present trend) gives an annual rate of 3.6 per cent. Products for which demand could show a rate of increase higher than that of total demand for food are: poultrymeat (6 per cent), sugar, eggs, oils and fats (4 per cent); rice, tubers, fruit, mutton and pigmeat (3.8 per cent); pulses and beef are likely to increase by only 3.2 per cent per year; finally, wheat and milk will increase at a rate lower than that of aggregate demand (3.0 per cent). The pattern over past years would seem to indicate that if the present trend in consumption continues the concentration of a limited number of food items in the diet would be greater and as a result the relative share of beef, milk and wheat would be reduced.

Table 41
LATIN AMERICA: ESTIMATED DEMAND FOR PRINCIPAL FOODS^{a/}

Product	Consumption 1971-1973	Estimated demand, 1985 (Thousands metric tons)			Percentage annual increase		
		Hypoth esis	Hypoth esis	Hypoth esis	Hypoth esis	Hypoth esis	Hypoth esis
		A	B	C	A	B	C
Wheat <u>b/</u>	13 632	20 018	19 274	18 554	3.0	2.7	2.4
Rice <u>b/</u>	10 111	16 419	17 261	18 560	3.9	4.2	4.8
Maize <u>b/</u>	13 111	20 764	16 960	16 960	3.6	2.0	2.0
Cereals <u>b/</u>	656	1 039	1 065	1 093	3.6	3.8	4.0
Roots and tubers <u>b/</u>	24 948	40 513	40 540	42 591	3.8	4.0	4.2
Sugar <u>c/</u>	11 777	19 610	19 610	19 610	4.0	4.0	4.0
Pulses	4 039	6 083	6 895	7 158	3.2	4.2	4.5
Oils and fats <u>d/</u>	2 279	3 795	3 940	4 192	4.0	4.3	4.8
Vegetables <u>b/</u>	8 174	12 945	15 605	16 395	3.6	5.0	5.5
Fruits <u>b/</u>	29 705	48 239	54 642	58 852	3.8	4.8	5.4
Beef <u>e/</u>	6 196	9 344	11 683	12 115	3.2	5.0	5.3
Pork and mutton <u>e/</u>	2 811	4 565	6 774	7 645	3.8	7.0	8.0
Poultry	1 190	2 538	3 437	3 648	6.0	8.5	9.0
Eggs	1 454	2 421	3 378	3 504	4.0	6.7	7.0
Milk <u>f/</u>	2 847	41 808	51 724	53 683	3.0	4.7	5.0
<u>Total food demand g/</u>					<u>3.6</u>	<u>3.8</u>	<u>4.2</u>

Source: ECLA/FAO Joint Agricultural Division estimates based on FAO Production and Trade Yearbooks, 1974.

a/ Human consumption only, excluding fish.

b/ Commodity equivalent.

c/ Refined sugar.

d/ Including animal fats, commodity equivalent.

e/ Including offals.

f/ Including milk products, liquid milk equivalent.

g/ Aggregate according to calorie component. It should be pointed out that total food demand can also be computed according to the gross value of production of the different products, in which case the growth rates would be considerably higher, mainly because of livestock products, whose value is relatively high while their calorie component is relatively low.

Hypothesis B gives an annual growth rate of 3.8 per cent, and implies a change in the structure of the regional average diet. This hypothesis indicates high annual growth rates in the consumption of poultrymeat (8.5 per cent), mutton and pigmeat (7.0 per cent), and eggs (6.7 per cent); a higher rate (5 per cent) of consumption for beef and vegetables compared with the current one, and greater consumption of fruit and milk (4.8 per cent), rice, oil seeds and pulses (4.2 per cent). However, a marked decrease is to be expected in the rate of growth of consumption of maize (2 per cent) and of wheat (2.7 per cent) of which 40 per cent of apparent regional consumption needs was imported in 1974. Practically only tubers and starchy roots are likely to show growth rates similar to that of average consumption growth for all food items.

Hypothesis C implies an annual growth rate of approximately 2 per cent and, therefore, means that structural changes in the average diet of the region would have to be given greater importance than in Hypothesis B. Hypothesis C implies a higher growth rate in the consumption of poultrymeat, eggs, mutton and pigmeat, beef, fruit and vegetables, milk and pulses. A greater drop in the growth rate of wheat consumption could be expected in response to the partial substitution of this food item by others more easily produced locally. In the case of maize, its consumption is expected to be equal to that shown in Hypothesis B. A similar result is expected in respect of sugar.

In preparing table 41 the base period used was 1971/1973-1974, and average consumption, expressed in terms of volume, of the different groups of food items was established on the basis of the structure of the regional average diet, or the share of the different groups of food items in the supply of food energy. For Hypothesis A the trend was extrapolated; for Hypothesis B and C projections were made for the different groups of food items, on the basic assumption that if changes were to be introduced in the structure of the average diet, demand would have to reflect gradual changes towards more varied protein-rich food items (meats, eggs, milk), and fruit vegetables, pulses, oils and fats. Concurrently, there would have to be a reduction in the average consumption of cereals, particularly of maize and wheat - the latter because of problems of extra-regional supply - and the average consumption of sugar, tubers and roots would have to remain fairly stable.

On this basis the assumed consumption increases were established for each group of products and made compatible with the regional average, on the basis of the resulting dietary structure in each hypothesis. Alternatives B and C satisfy the basic objective mentioned above of studying the possibility of improving the nutritional levels of the most needy among the regional population.

The results of the foregoing hypotheses can also be expressed in terms of millions of additional tons of food products for consumption by the regional population. The study of absolute figures - see table 42 - gives an idea of the actual figure that this hypothetical average regional consumption of food items could represent for each one of them.

Table 42

LATIN AMERICA: ADDITIONAL HYPOTHETICAL VOLUME BETWEEN
1971/1973-1974 AND 1975 a/

(Millions of tons)

	Hypothesis A (trend)	Hypothesis B	Hypothesis C
Wheat	6.4	5.6	0.9
Rice	6.3	7.2	8.4
Maize	7.7	3.8	3.8
Tubers and roots	15.6	15.6	17.6
Sugar	7.8	7.8	7.8
Pulses	2.0	2.9	3.1
Fats and oils	1.5	1.7	1.9
Vegetables	4.8	7.4	8.2
Fruits	18.5	24.9	29.1
Beef	3.1	5.5	5.9
Mutton and pigmeat	1.8	4.0	4.8
Poultrymeat	1.3	2.2	2.5
Eggs	1.0	1.9	2.1
Milk	13.3	23.3	25.2

Source: Table 9.

a/ Human consumption only.

Hypotheses A, B and C refer to human consumption expressed in terms of calories. In order to estimate the total regional demand for agricultural and livestock products the process must be reversed converting calories into products which provide them so as to quantify their volumes. To the figures for human consumption must be added those for animal consumption, other domestic uses - seeds, losses, etc. - products for export and changes in stocks. FAO in the Perspective Study for South America and Central America estimates that human consumption represents a little more than two-thirds of the total agricultural and livestock products used in the geographical areas. The rates of growth of human consumption shown in the Perspective Study are larger than those resulting from the hypotheses included in table 11 mainly because livestock products have a greater weighting in terms of value, and, in turn, make a smaller contribution to the calorie total. On the basis of the Perspective Study mentioned above and using the export growth rates proposed in it - which are higher than those of recent years - an estimate of the hypothetical total regional demand for agricultural and livestock products can be made. The result for the trend hypothesis would show an annual total increase in demand of 4 per cent, for hypothesis B, an increase of 4.6 per cent and for C, one of 5 per cent.

In the Perspective Study - which covered 2 regions with 90 per cent of the Latin American population - the basic elements of a strategy for future regional agricultural development are presented and the main policies and instruments through which the proposed objectives and targets can be achieved. In this study it is

stated that South America and Central America could achieve productions with constant rates of growth approximating to or higher than 5 per cent per year, a rate of increase through which it would be possible to satisfy greater domestic demand and to export towards the rest of the world larger quantities than those exported in the past.

The feasibility of increasing production as forecast in the Perspective Study is based on the simultaneous examination of the possibilities of exploiting the agricultural production potential and of increasing levels of productivity in national agricultures. The regional productive base could be widened by adopting policies and programmes basically oriented towards the improved use and combination of existing productive resources; the improvement of government and private services, for agricultural and rural development; the raising of technological levels; and the improvement and development of cattle stocks, and land and water resources.

In chapter II the response capacity of Latin American agriculture - particularly in 1974 - to the impulse provided by an insatiable world market, characterized moreover by attractive prices, was shown. The growth of domestic demand which was reflected in higher food consumption by half of the Latin American population, will surely exercise a greater and more lasting impact as regards the improvement of the productive base. Recent market pressures are likely to prove the technical and economic viability of ambitious production targets and confirm the widespread conviction that Latin American agricultural productive potential can achieve high and constant rates of growth in food production. It can, therefore, be said that the political will to improve the food and nutritional situation in Latin America will find in this viability a solid basis for the implementation of relevant actions, in particular, those in favour of the social groups in the lower income brackets who are, therefore, more vulnerable to the effects of protein and energy deficiencies.

ANNEX

Table 1
LATIN AMERICA: EVOLUTION OF THE GROSS DOMESTIC PRODUCT (GDP)^{a/}

Country	Total			Per capita				
	1970- 1974	1972- 1973	1973- 1974 b/	1970	1974	1970- 1974	1973	1974 b/
	Annual growth rates			Dollars		Annual growth rates		
LAPTA	6.9	7.8	7.2	670	783	4.0	4.9	4.1
ANDEAN PACT	5.3	5.0	5.9	628	688	2.3	2.0	3.0
Bolivia	4.9	5.3	5.6	260	285	2.2	2.6	2.9
Colombia	6.8	7.8	6.3	509	583	3.5	4.4	3.0
Chile	2.7	-3.5	4.6	779	802	0.9	-4.9	2.8
Ecuador	7.7	9.1	9.2	372	440	4.3	5.6	5.8
Peru	5.7	5.5	6.7	526	585	2.9	3.3	3.7
Venezuela	4.8	6.3	5.0	1 176	1 260	1.8	3.3	2.0
REMAINDER OF LAPTA	7.5	8.7	7.6	686	820	4.6	5.7	4.7
Argentina	4.6	3.8	7.2	1 213	1 377	3.2	2.4	5.8
Brazil	11.1	13.3	9.6	445	605	8.0	10.1	6.5
Mexico	6.0	7.5	5.9	893	991	2.7	4.1	2.5
Paraguay	6.2	7.3	7.7	362	407	3.0	4.0	4.4
Uruguay	0.1	0.8	1.2	927	886	-1.1	-0.5	0.7
CENTRAL AMERICAN COMMON MARKET	5.4	5.8	4.5	419	458	2.3	2.5	1.6
Costa Rica	5.9	6.2	4.0	659	738	2.9	3.3	1.2
El Salvador	5.4	4.9	6.0	397	432	2.2	1.7	2.9
Guatemala	6.3	7.9	4.8	415	470	3.2	4.8	1.7
Honduras	3.0	5.0	-0.5	289	283	-0.5	1.4	-4.1
Nicaragua	4.9	2.0	8.3	432	460	1.5	-1.4	4.5
CARICOM	...	...	...	581	...	...	...	...
Barbados	...	...	...	571	...	...	...	...
Guyana	...	...	...	314	...	...	...	...
Grenada	...	...	...	283	...	...	...	...
Jamaica	...	...	...	607	...	...	...	...
Trinidad and Tobago	...	...	...	750	...	...	...	...
OTHER COUNTRIES OF LATIN AMERICA	...	...	...	...	...	...	...	...
Bahamas	...	...	...	...	...	...	...	...
Cuba	...	...	...	...	...	...	...	...
Haiti	4.4	4.5	3.0	99	106	1.7	1.9	-
Panama	6.2	6.1	3.8	868	988	3.3	3.2	0.9
Dominican Republic	10.7	11.2	8.6	347	457	7.2	7.7	5.1
TOTAL LATIN AMERICA	6.9	7.7	7.1	640	747	3.9	4.8	4.0

Source: ECLA, on the basis of official figures.

a/ Figures in national currency, at factor cost and at 1970 prices, were converted into United States dollars using parity rates of exchange prepared by ECLA for that year; for calculating these rates of exchange, purchasing-power equivalents calculated originally for the year 1962 were extrapolated using price indexes.

b/ Preliminary figures.

Table 2
 LATIN AMERICA: SHARE OF AGRICULTURAL EXPORTS IN PHYSICAL VOLUME OF
 AGRICULTURAL PRODUCTION OF LATIN AMERICAN COUNTRIES, 1974

Less than 20%	Percent- age	Between 20% and 40%	Percent- age	More than 40%	Percent- age
Venezuela	3.0	Panama	22.8	Cuba	40.9
Chile	3.4	Argentina	24.1	Nicaragua	41.7
Bolivia	5.5	Jamaica	28.5	Guatemala	46.5
Mexico	6.7	Honduras	29.6	Costa Rica	48.6
Peru	8.9	Guyana	33.7	El Salvador	50.5
Brazil	8.9	Dominican Republic	37.7		
Haiti	11.1	Trinidad and Tobago	38.7		
Paraguay	13.4				
Colombia	14.6				
Uruguay	17.0				
<u>Latin America</u> (average)	17.9				
Ecuador	18.0				

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of national statistics
 (see table 8).

Table 3
INDICATORS ON THE RELATIVE SITUATION OF THE AGRICULTURAL
SECTOR IN LATIN AMERICAN COUNTRIES

(Percentages)

Country	Agricultural population			Agricultural GDP		Agricultural GDP	
	As percentage		Annual	as percentage of		per capita of	
	of total			total GDP		agricultural	
	population		growth	= 100		population as	
Total population		rate	GDP total		percentage of		
= 100			= 100		of non-agricul-		
					tural population		
					Non-agricultural		
					GDP per capita		
					non-agricultural		
					population = 100		
	1970	1974	1970-	1970	1974	1970	1974
			1974				
LAFTA	40.5	38.2	1.4	14.1	12.5	24.2	28.0
ANDEAN PACT	41.1	38.9	1.5	16.9	15.5	29.2	28.8
Bolivia	58.3	57.2	2.0	16.9	15.8	14.6	14.1
Colombia	45.2	43.0	1.9	29.1	26.9	49.6	48.9
Chile	25.4	23.7	0.1	7.8	6.9	24.7	23.7
Ecuador	53.6	50.1	1.6	29.9	23.1	37.0	29.9
Peru	45.6	43.2	1.6	19.0	17.2	29.5	25.1
Venezuela	26.2	23.4	0.1	7.3	7.1	23.2	25.3
REMAINDER OF LAFTA	40.3	38.0	1.3	13.2	11.5	22.4	21.3
Argentina	15.2	13.7	-1.2	13.2	11.8	84.9	86.2
Brazil	43.7	40.9	1.2	14.3	13.6	21.5	20.1
Mexico	46.6	43.7	1.6	11.8	10.9	15.4	14.1
Paraguay	53.3	52.3	2.7	34.3	34.8	45.8	50.1
Uruguay	16.7	15.4	-0.9	12.5	12.6	72.1	79.3
CENTRAL AMERICAN COMMON MARKET	59.0	57.3	2.4	29.3	28.8	28.8	30.2
Costa Rica	44.6	42.2	1.4	25.0	23.4	41.4	41.8
El Salvador	56.8	55.0	2.4	30.6	28.9	26.6	33.2
Guatemala	62.7	61.1	2.3	30.1	31.0	25.6	28.7
Honduras	66.7	65.4	3.0	34.7	32.6	26.5	25.6
Nicaragua	55.8	53.7	2.3	26.3	27.3	28.2	32.5
CARICOM	...	...	...	...	...	...	...
Barbados	22.8	21.6	-0.3	13.8	...	54.1	...
Guyana	32.3	30.7	1.5	19.2	...	49.9	...
Grenada	...	...	...	30.0	...	...	...
Jamaica	27.0	25.6	0.7	7.8	...	23.1	...
Trinidad and Tobago	16.6	15.7	0.5	5.2	...	27.8	...
OTHER COUNTRIES OF LATIN AMERICA	...	...	...	...	...	...	...
Bahamas	...	...	...	...	...	...	...
Cuba	32.8	30.7	0.4	...	...	...	...
Haiti	77.1	75.0	1.8	50.8	46.6	30.7	29.1
Panama	43.1	40.4	1.2	20.7	18.5	34.4	33.5
Dominican Republic	60.8	58.7	2.4	25.2	20.2	21.8	17.9
TOTAL LATIN AMERICA	42.1 _{a/}	39.9 _{a/}	1.4 _{a/}	15.0 _{b/}	13.3 _{b/}	23.7 _{b/}	22.4 _{b/}

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of ECLA/CELADE and official figures.

a/ Excludes Bahamas and Grenada.

b/ Excludes CARICOM, Cuba and Bahamas.

Table 4
 AGRICULTURAL GDP OF THE LATIN AMERICAN COUNTRIES COMPARED WITH THAT OF
 THE REGION AS A WHOLE AND THOSE OF THE SUBREGIONAL SCHEMES

(Percentages)

Country	Agricultural GDP in each country					
	As percentage of Latin American agricultural GDP		As percentage of subregional agricultural GDP			
	1970	1974	1970		1974	
LAFTA	89.2	88.9	100.0		100.0	
ANDEAN PACT	27.6	26.8	30.9	100.0	30.1	100.0
Bolivia	0.8	0.8	0.9	3.0	0.9	3.0
Colombia	12.8	13.3	14.3	46.2	14.9	49.7
Chile	2.3	1.9	2.6	8.3	2.2	7.3
Ecuador	2.6	2.4	2.9	9.5	2.7	8.8
Peru	5.4	4.7	6.1	19.6	5.3	17.6
Venezuela	3.7	3.6	4.1	13.4	4.1	13.6
REMAINDER OF LAFTA	61.6	62.1	69.1	-	69.9	-
Argentina	14.8	14.1	16.6	-	15.8	-
Brazil	23.7	26.7	26.5	-	30.1	-
Mexico	20.7	18.9	23.2	-	21.3	-
Paraguay	1.1	1.2	1.2	-	1.4	-
Uruguay	1.3	1.1	1.5	-	1.3	-
CENTRAL AMERICAN COMMON MARKET	7.3	7.6	100.0	-	100.0	-
Costa Rica	1.1	1.1	15.4	-	14.8	-
El Salvador	1.7	1.7	23.1	-	22.1	-
Guatemala	2.6	2.9	35.7	-	38.6	-
Honduras	1.0	0.9	13.8	-	12.0	-
Nicaragua	0.9	1.0	12.0	-	12.5	-
CARICOM	...	...	100.0	-	100.0	-
Barbados	...	...	...	-	-	-
Guyana	...	...	...	-	-	-
Grenada	...	...	...	-	-	-
Jamaica	...	...	...	-	-	-
Trinidad and Tobago	...	...	...	-	-	-
OTHER COUNTRIES OF LATIN AMERICA			-	-	-	-
Bahamas			-	-	-	-
Cuba			-	-	-	-
Haiti	1.0	1.0	-	-	-	-
Panama	1.0	1.0	-	-	-	-
Dominican Republic	1.5	1.5	-	-	-	-
TOTAL LATIN AMERICA	100.0 _{a/}	100.0 _{a/}	-	-	-	-

Source: Estimates of the ECLA/PAO Joint Agriculture Division on the basis of official figures.

a/ Excludes CARICOM, Bahamas and Cuba.

Table 5
VALUE OF WORLD AND LATIN AMERICAN AGRICULTURAL EXPORTS ^{a/}

	World		Total developing countries	Latin American countries	
	Total	10 principal products ^{b/}		Total	10 principal products ^{b/}
<u>Thousands of dollars at current prices</u>					
1971	57.0	23.6	17.6	7.5	5.2
1972	67.3	28.3	20.2	8.8	6.5
1973	96.6	42.6	27.8	12.5	9.9
1974	116.5	56.2	35.4	15.6	12.0
<u>Percentage annual increase</u>					
1971-1972	18.1	19.9	14.8	17.3	25.0
1972-1973	43.5	49.8	37.6	42.0	38.5
1973-1974	20.6	32.5	27.3	24.8	33.3
1971-1974	26.8	33.7	28.4	27.7	32.1

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of FAO,
Trade Yearbook, 1974.

^{a/} Excluding forestry and fishery products.

^{b/} Wheat, rice, maize, bananas, coffee, sugar, beef (including cattle on the hoof), raw tobacco, cotton linc, edible oils (cotton, peanut, soya) and cocoa.

Table 6
RELATIVE VALUE OF LATIN AMERICAN AGRICULTURAL EXPORTS IN WORLD TRADE

(Percentages)

	1971	1972	1973	1974	Period 1971- 1974
<u>Share of world trade in agricultural products</u>					
Developing countries	31	30	29	30	30
Latin American countries	13	13	13	13	13
World exports of the ten products	40	41	42	46	43
Share of Latin American countries in the agricultural exports of the developing countries					
	43	44	45	44	44
Share of the principal ten products in Latin American agricultural exports					
	68	72	70	74	71
Share of Latin American exports in the ten principal exports in the total of world exports of the same products					
	23	23	21	21	22

Source: Estimate of the ECLA/FAO Joint Agriculture Division on the basis of official figures, FAO, Trade Yearbook, 1974, table 6.

Table 7

ANNUAL RATES OF CHANGE IN EXPORTS OF SELECTED PRODUCTS TO WORLD AND LATIN AMERICAN MARKETS, 1971-1974

Product	World				Latin America			
	1971- 1972	1972- 1973	1973- 1974	1971- 1974 ^{a/}	1971- 1972	1972- 1973	1973- 1974	1971- 1974
Wheat ^{b/}	11.0	25.6	-19.3	5.6	55.5	73.7	-23.8	31.8
Barley	25.6	-10.8	-5.9	3.0	21.9	37.5	-23.2	12.1
Milne	20.8	28.9	5.2	18.3	-53.1	13.5	62.9	7.8
Rice	1.6	-2.1	-4.4	-1.6	-55.2	61.9	18.1	8.3
Oils of vegetable origin ^{c/}	2.5	0.3	9.0	3.9	100.3	75.5	-49.2	68.9
Soyabean meal	8.6	12.6	2.0	7.7	11.5	7.7	6.4	8.5
Wool	26.1	-53.6	24.1	-1.1	20.5	-76.1	97.3	13.9
Iron	18.9	8.9	-10.6	5.7	53.0	-13.9	-33.1	-13.3
Copper	10.7	-3.6	-24.9	-5.9	-49.4	55.7	-21.8	-5.2
Gold ^{d/}	3.7	4.7	-0.9	2.5	2.0	9.2	-1.5	3.2
Wool	6.1	7.1	-9.1	1.4	4.1	4.5	-17.3	-2.9
Cocoa	4.3	-10.9	6.4	-0.1	-1.8	-24.1	36.5	3.5
Alumina	17.1	0.8	13.3	10.4	14.9	-0.6	37.1	17.1
Iron (cont)	0.9	16.0	-16.0	0.3	23.7	0.2	-18.6	1.8

Source: Statistics of COMA/FAO Joint Agriculture Division on the basis of official figures; FAO, Trade Yearbook 1974 and Industrial Fishery Products.

^{a/} Simple average.

^{b/} Includes non-ferrous metal in primary product.

^{c/} Includes rapeseed, sunflower, peanut, olive, sunflower and rape seed oils.

^{d/} Annual production.

Table 8

LATIN AMERICA: DEPENDENCE OF AGRICULTURAL SECTOR ON WORLD MARKET

	Physical volume of agricultural exports as percentage of volume produced		Agricultural imports as percentage of domestic supply of agricultural products a/	
	1971	1974	1971	1974
LAFTA	13.1	12.2	9.1	9.4
ANDEAN PACT	9.7	9.8	17.7	19.5
Bolivia	2.8	5.5	13.8	10.8
Colombia	15.3	14.6	7.3	5.3
Chile	2.8	3.4	37.1	36.5
Ecuador	16.4	18.0	8.0	10.1
Peru	9.4	8.9	15.7	23.0
Venezuela	3.4	3.0	19.5	25.7
REMAINDER OF LAFTA				
Argentina	28.6	24.1	6.9	4.9
Brazil	11.4	8.9	7.6	4.7
Mexico	8.5	6.7	6.0	15.3
Paraguay	15.1	13.4	27.2	12.0
Uruguay	15.6	17.0	11.4	5.3
CENTRAL AMERICAN COMMON MARKET	39.5	48.6	18.9	14.7
Costa Rica	50.5	58.2	19.5	11.3
El Salvador	36.0	50.5	8.8	6.7
Guatemala	37.2	46.5	9.9	7.8
Honduras	38.1	29.6	8.9	7.5
Nicaragua	34.4	41.7	16.1	14.4
CARICOM				
Barbados	...	...	...	...
Guyana	45.7	33.7	22.7	20.3
Grenada	...	...	...	...
Jamaica	37.5	28.5	50.9	45.0
Trinidad and Tobago	46.8	38.7	58.8	56.8
OTHER COUNTRIES OF LATIN AMERICA				
Bahamas	...	...	...	...
Cuba	54.1	40.9	42.3	32.2
Haiti	11.5	11.1	6.8	6.1
Panama	30.2	22.8	30.6	20.1
Dominican Republic	36.4	37.7	12.5	16.1
TOTAL LATIN AMERICA	18.2	17.9	12.2	11.9

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Trade Yearbook, 1974.

a/ Imports were valued and aggregated at 1970 CIF prices. Domestic production and exports were valued and aggregated at 1969 producer prices.

Table 9

LATIN AMERICA: EXPORTS, IMPORTS AND AGRICULTURAL TRADE BALANCE

(Millions of dollars at current prices)

	Agricultural exports (FOB)				Agricultural imports (CIF)				Agricultural trade balance			
	1971	1972	1973	1974	1971	1972	1973	1974	1971	1972	1973	1974
LAFTA	5 292	6 512	9 476	10 887	1 510	1 782	2 892	4 183	3 789	4 730	6 584	6 704
ANDEAN PACT	974	1 122	1 423	1 811	804	898	1 281	1 967	170	224	142	-156
Bolivia	13	21	35	54	38	36	39	64	-25	-15	-4	-10
Colombia	537	611	809	1 022	105	101	162	242	432	510	647	780
Chile	37	36	35	59	288	314	449	667	-251	-278	-414	-608
Ecuador	191	209	246	301	31	35	40	76	160	174	206	225
Peru	162	189	244	307	136	170	233	369	26	19	11	-62
Venezuela	34	56	54	68	206	242	358	549	-172	-186	304	481
REMAINDER OF LAFTA	4 325	5 390	8 053	9 076	706	884	1 611	2 216	3 619	4 506	6 442	6 860
Argentina	1 458	1 517	2 522	2 781	129	157	251	170	1 329	1 360	2 271	2 611
Brazil	1 941	2 751	4 207	4 799	325	387	721	866	1 616	2 364	3 488	3 933
Mexico	700	864	950	1 006	193	269	544	1 069	507	595	406	-63
Paraguay	51	72	105	152	25	31	42	64	26	41	63	88
Uruguay	175	186	267	338	34	40	53	47	141	146	214	291
CENTRAL AMERICAN COMMON MARKET	799	968	1 193	1 454	148	146	196	229	651	822	997	1 225
Costa Rica	169	219	261	293	43	39	49	61	126	180	212	232
El Salvador	145	183	237	330	32	31	45	44	113	152	192	286
Guatemala	199	232	305	430	31	30	36	55	168	202	269	345
Honduras	145	143	182	161	19	20	23	30	126	123	159	131
Nicaragua	141	191	208	270	23	26	43	39	118	165	165	231
CARICOM	208	238	227	394	215	261	301	412	-7	-23	-74	-18
Barbados	23	23	25	38	32	37	40	47	-9	-14	-15	-9
Guyana	64	69	55	142	23	23	30	34	41	46	25	108
Grenada	5	5	6	7	7	7	7	9	-2	-2	-1	-2
Jamaica	75	91	95	125	87	118	137	191	-12	-27	-42	-66
Trinidad and Tobago	41	50	46	82	66	76	87	131	-25	-26	-41	-49
OTHER COUNTRIES OF LATIN AMERICA	1 038	985	1 496	2 670	465	471	569	874	573	514	927	1 796
Bahamas	7	13	17	17	63	66	73	83	-56	-53	-56	-66
Cuba	721	606	1 046	2 034	304	294	355	531	417	312	691	1 503
Haiti	26	23	28	38	16	18	23	40	10	5	5	-2
Panama	73	79	82	80	41	40	43	73	32	39	39	7
Dominican Republic	211	264	323	501	41	53	75	147	170	211	248	354
TOTAL LATIN AMERICA	7 344	8 703	12 392	15 405	2 338	2 660	3 958	5 698	5 006	6 043	8 434	9 707

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Trade Yearbook, 1974.

Note: According to Monthly Bulletin N° 572 of the Central Bank of Chile, for October 1975, agricultural imports amounted to US\$ 218 million in 1971, 274 million in 1972, 331 million in 1973 and 686 million in 1974. The differences between FAO figures and those of the Central Bank of Chile are due to the fact that in its Trade Yearbook, FAO uses other data to value the volume of trade. According to Boletín Agroestadística N° 23 of ODEPA, for August 1975, exports were US\$ 45 million in 1971, 27 million in 1972, 30 million in 1973 and 71 million in 1974.

Table 10

LATIN AMERICA: VOLUME AND VALUE OF COCOA BEAN EXPORTS, 1970-1974

	1970		1971		1972		1973		1974	
	Thou- sands of tons	Millions of dollars at current prices	Thou- sands of tons	Millions of dollars at current prices	Thou- sands of tons	Millions of dollars at current prices	Thou- sands of tons	Millions of dollars at current prices	Thou- sands of tons	Millions of dollars at current prices
LAFTA	174	110	185	95	174	96	133	132	190	285
ANDEAN PACT	49	29	62	32	57	29	43	38	57	72
Bolivia	-	-	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-	-	-
Chile	-	-	-	-	-	-	-	-	-	-
Ecuador	37	22	51	25	46	23	30	27	43	52
Peru	-	-	-	-	-	-	-	-	-	-
Venezuela	12	7	12	7	11	6	13	11	14	20
REMAINDER OF LAFTA	125	81	123	63	117	67	90	94	133	213
Argentina	-	-	-	-	-	-	-	-	-	-
Brazil	120	78	119	61	102	59	83	89	130	210
Mexico	5	3	4	2	15	8	7	5	3	3
Paraguay	-	-	-	-	-	-	-	-	-	-
Uruguay	-	-	-	-	-	-	-	-	-	-
CENTRAL AMERICAN COMMON MARKET	3	2	4	2	6	3	5	4	6	7
Costa Rica	3	2	4	2	6	3	5	4	6	7
El Salvador	-	-	-	-	-	-	-	-	-	-
Guatemala	-	-	-	-	-	-	-	-	-	-
Honduras	-	-	-	-	-	-	-	-	-	-
Nicaragua	-	-	-	-	-	-	-	-	-	-
CARICOM	9	7	6	4	8	5	6	5	6	8
Barbados	-	-	-	-	-	-	-	-	-	-
Guyana	-	-	-	-	-	-	-	-	-	-
Grenada	3	2	2	2	3	2	2	2	2	3
Jamaica	-	-	-	-	-	-	-	-	-	-
Trinidad and Tobago	6	5	4	2	5	3	4	3	4	5
OTHER COUNTRIES OF LATIN AMERICA	34	19	29	13	32	16	23	20	26	44
Bahamas	-	-	-	-	-	-	-	-	-	-
Cuba	-	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-	-
Dominican Republic	34	19	29	13	32	16	23	20	26	44
TOTAL LATIN AMERICA	220	138	224	114	220	120	167	161	228	344

Source: FAO, Trade Yearbook, 1974.

Table 11
 IMPLICIT EXPORT PRICES OF SELECTED PRODUCTS
 (Dollars per ton)

	Country of reference a/	1965	1970	1971	1972	1973	1974	1975 b/		
								First quarter	Second quarter	Third quarter
Wheat	Argentina	56.0	54.7	59.4	65.9	91.6	138.2	157.9	135.4	156.8
Maize	Argentina	54.8	50.7	56.8	58.2	90.6	107.1	92.5	87.5	98.8
Rice	Brazil	...	...	77.1	80.0	126.7	319.1	241.0	228.0	208.0
Beef	Argentina	596.8	551.1	1 018.7	1 229.3	1 805.3	1 812.6	...	2 794.8	...
Sugar (centrifugal)	Free Market	56.6	99.1	119.4	196.3	253.3	796.8	866.8	484.4	451.4
Coffee	Brazil	871.1	958.6	746.9	941.9	1 161.4	1 261.0	1 255.8	1 244.3	1 602.8
Bananas	Ecuador	79.9	69.1	74.9	77.5	78.5	81.3	132.8	153.3	124.0
Cotton (lint)	Brazil	489.0	450.4	604.7	660.5	757.5	1 048.5	846.8	824.2	836.4
Vegetable oils	Brazil	...	...	493.0	533.0	1 182.0	1 186.0	896.0	820.0	856.0
Cocoa	Brazil	...	648.4	517.9	578.3	1 067.8	1 617.9	1 572.3	1 147.7	1 232.0

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of national information.

a/ Major exporting country of the product in 1971.

b/ Preliminary figures.

Table 12
EXPORT PRICE INDEXES
(1971 = 1.00)

	1965	1970	1971	1972	1973	1974	1975		
							First quarter	Second quarter	Third quarter
Wheat	0.94	0.92	1.00	1.11	1.54	2.33	2.66	2.28	2.64
Maize	0.96	0.89	1.00	1.02	1.60	1.89	1.63	1.54	1.74
Rice	...	...	1.00	1.04	1.64	4.14	3.13	2.96	2.70
Beef	0.59	0.54	1.00	1.21	1.77	1.78	...	2.74	...
Sugar (centrifugal)	0.47	0.83	1.00	1.64	2.19	6.67	7.26	4.06	3.78
Coffee	1.17	1.28	1.00	1.26	1.55	1.69	1.68	1.67	2.15
Bananas	1.07	0.92	1.00	1.03	1.05	1.09	1.77	1.51	1.66
Cotton (lint)	0.81	0.74	1.00	1.09	1.25	1.73	1.40	1.36	1.38
Vegetable oils	...	...	1.00	1.08	2.40	2.41	1.82	1.66	1.74
Cocoa	...	1.25	1.00	1.12	2.06	3.12	3.04	2.22	2.38

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of national information.

Table 13

LATIN AMERICA: EXTERNAL TRADE IN THE PRINCIPAL AGRICULTURAL PRODUCTS IN 1971

(Thousands of tons)

	Wheat	Maize	Rice	Beef	Sugar (cen- trifu gal)	Coffee	Bananas	Cotton (lint)	Vege- table oils
LAPTA	-3 341	7 210	268	412	2 471	1 590	1 545	433	28
ANDEAN PACT	-2 394	-471	-44	-31	577	495	1 527	63	-117
Bolivia	-174	-	-	-	7	4	3	4	-3
Colombia	-446	-12	-	18	161	393	229	39	-8
Chile	-382	-353	-40	-42	-142	-10	-75	-27	-37
Ecuador	-93	-	-	-	86	46	1 351	-2	-16
Peru	-704	-	-	-7	432	42	-	52	-9
Venezuela	-596	-105	-4	-	33	20	19	-4	-44
REMAINDER OF LAPTA	-947	7 681	312	443	1 894	1 095	18	370	145
Argentina	987	6 127	92	231	118	-34	-135	-14	46
Brazil	-1 739	1 279	147	83	1 261	1 034	176	222	113
Mexico	-92	260	-1	35	546	97	1	165	-11
Paraguay	-64	15	-	14	-	2	-	2	1
Uruguay	-39	-	74	80	-31	-4	-24	-5	-4
CENTRAL AMERICAN COMMON MARKET	-291	12	-14	75	314	319	2 172	173	-4
Costa Rica	-67	-26	-16	18	83	64	928	-1	-8
El Salvador	-66	40	-1	-	73	98	-	48	-
Guatemala	-66	-13	-2	17	70	100	181	48	-1
Honduras	-49	13	-3	15	10	25	1 063	1	-1
Nicaragua	-43	-2	8	25	78	32	-	77	6
CARICOM	-332	-117	-4	-8	235	3	142	-1	-8
Barbados	-19	-4	-7	-2	125	-	-	-	-
Guyana	-31	-1	74	-	337	-	-	-	-
Grenada	-8	-	-1	-	-4	-	14	-	-
Jamaica	-189	-70	-36	-3	303	-	128	-1	-6
Trinidad and Tobago	-92	-42	-34	-3	174	3	-	-	-2
OTHER COUNTRIES OF LATIN AMERICA	-1 110	-183	-307	1	5 343	52	628	-19	-44
Bahamas	-8	-3	-4	-4	7	-	-1	-	-
Cuba	-882	-153	-280	-	4 280	2	-	-19	-1
Haiti	-67	-	-	1	23	22	-	-	-10
Panama	-55	-14	-23	1	39	2	623	-	-16
Dominican Republic	-98	-13	-	3	994	26	6	-	-17
TOTAL LATIN AMERICA	-5 081	6 922	-57	480	9 063	1 965	4 486	587	-28
LAPTA									
Total exports	1 153	7 700	315	467	2 644	1 638	1 779	495	164
Total imports	-4 494	-490	-47	-55	-173	-48	-234	-62	-136
Net balance	-3 341	7 210	268	412	2 471	1 590	1 545	433	28
ANDEAN PACT									
Total exports	-	-	-	18	719	506	1 602	96	-
Total imports	-2 394	-471	-44	-49	-142	-11	-75	-33	-117
Net balance	-2 394	-471	-44	-31	577	495	1 527	-63	-117
CENTRAL AMERICAN COMMON MARKET									
Total exports	1	60	11	75	314	319	2 172	176	10
Total imports	-292	-48	-25	-	-	-	-	-3	-14
Net balance	-291	12	-14	75	314	319	2 172	173	-4
CARICOM									
Total exports	9	-	74	-	942	4	142	-	-
Total imports	-348	-117	-78	-8	-7	-1	-	-1	8
Net balance	-339	-117	-4	-8	935	3	142	-1	-8
LATIN AMERICA									
Total exports	1 162	7 761	399	547	9 249	2 014	4 722	671	174
Total imports	-6 243	-839	-456	-67	-186	-49	-236	-84	-202
Net balance	-5 081	6 922	-57	480	9 063	1 965	4 486	587	-28

Source: ECLA/FAO Joint Agriculture Division on the basis of FAO, Trade Yearbook, several issues.

Table 14
LATIN AMERICA: EXTERNAL TRADE IN THE PRINCIPAL AGRICULTURAL PRODUCTS IN 1973

(Thousands of tons)

	Wheat	Maize	Rice	Beef	Sugar (cen- trifu gal)	Coffee	Bananas	Cotton (link)	Vege- table oils
LAFTA	-4 120	2 133	56	548	4 308	1 690	1 594	539	344
ANDEAN PACT	-2 954	-814	-32	10	413	522	1 587	65	-182
Bolivia	-178	-3	-	2	52	4	-	15	-
Colombia	-401	-125	11	34	142	392	240	42	-13
Chile	-943 ^{a/}	-161	-55	-19	-301	-9	-56	-29	-25
Ecuador	-125	-	-5	-	82	62	1 391	-3	-13
Peru	-762	-209	11	-7	407	58	-	49	-60
Venezuela	-545	-315	6	-	31	15	12	-9	-71
REMAINDER OF LAFTA	-1 166	2 947	88	538	3 895	1 168	7	474	526
Argentina	2 687	4 033	35	294	491	-36	-120	-8	104
Brazil	-2 960	37	22	97	2 822	1 068	139	290	477
Mexico	-708	-1 117	-26	28	607	137	1	178	-58
Paraguay	-35	3	1	20	6	3	-	19	13
Uruguay	-150	-9	56	99	-31	-4	-13	-5	-10
CENTRAL AMERICAN COMMON MARKET	-321	-180	1	23	409	383	2 550	248	7
Costa Rica	-81	-42	-	20	113	73	1 192	-1	-8
El Salvador	-85	-58	-	4	100	120	-	62	-1
Guatemala	-64	-36	-1	17	126	115	283	85	4
Honduras	-43	3	-5	26	-11	38	1 000	3	-1
Nicaragua	-48	-47	7	26	81	37	75	99	13
CARICOM	-353	-149	-2	-2	736	2	120	-1	-4
Barbados	-21	-7	-7	-2	104	-	-	-	-
Guyana	-53	-8	49	-	226	-	-	-	-
Grenada	-8	-	-1	-	-4	-	11	-	-
Jamaica	-170	-109	-32	-4	263	-	109	-1	-3
Trinidad and Tobago	-101	-25	-11	-3	147	2	-	-	-1
OTHER COUNTRIES OF LATIN AMERICA	-1 159	-336	-231	6	5 889	63	579	-18	-35
Bahamas	-7	-5	-4	-3	-5	-	-1	-	-
Cuba	-895	-260	-201	-	4 797	2	-	-18	-1
Haiti	-86	-	-	1	14	19	-	-	-8
Panama	-50	-17	2	1	45	2	555	-	-7
Dominican Republic	-121	-53	-28	7	1 038	40	25	-	-19
TOTAL LATIN AMERICA	-5 953	1 468	-175	638	11 342	2 135	4 842	768	312
LAFTA									
Total exports	3 120	4 105	220	576	4 657	1 742	1 783	595	597
Total imports	-7 240	-1 972	-163	-28	-349	-52	-189	-56	-253
Net balance	-4 120	2 133	57	548	4 308	1 690	1 594	539	344
ANDEAN PACT									
Total exports	1	1	83	36	731	531	1 643	107	-
Total imports	-2 955	-815	-115	-26	-318	-9	-56	-42	-182
Net balance	-2 954	-814	-32	10	413	522	1 587	65	-182
CENTRAL AMERICAN COMMON MARKET									
Total exports	-	27	8	93	421	383	2 584	250	21
Total imports	-321	-207	-7	-	-12	-	-34	-2	-14
Net balance	-321	-180	1	93	409	383	2 550	248	7
CARICOM									
Total exports	2	3	49	-	744	3	120	-	-
Total imports	-355	-152	-51	-9	-8	-1	-	-1	-4
Net balance	-353	-149	-2	-9	736	2	120	-1	-4
LATIN AMERICA									
Total exports	3 122	4 134	279	678	11 716	2 192	5 067	845	618
Total imports	-9 075	-2 666	-455	-40	-374	-57	-225	-77	-306
Net balance	-5 953	1 468	-176	638	11 342	2 135	4 842	768	312

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, *Production and Trade Yearbook, 1974*.
a/ 1 260 000 tons were imported in 1973, according to ODEPA, *Importaciones de la Empresa de Comercio Agrícola, 1971-1973*.

Table 15

LATIN AMERICA: EXTERNAL TRADE IN PRINCIPAL AGRICULTURAL PRODUCTS IN 1974

(Thousands of tons)

	Wheat	Maize	Rice	Beef	Sugar centrif ugal	Coffee	Bananas	Cotton (lint)	Vege- table oils
LAFTA	-4 339	4 660	120	322	3 703	1 277	1 662	334	280
ANDEAN PACT	-2 941	-777	9	10	333	508	1 640	69	-205
Bolivia	-207	-3	-	2	43	3	-	20	-1
Colombia	-424	-50	60	19	129	414	301	38	-18
Chile	-890	-194	-23	-4	-273	-13	-54	-26	-42
Ecuador	-156	-	20	-	62	59	1 381	-4	-10
Peru	-679	-270	-43	-7	429	27	-	48	-73
Venezuela	-585	-269	35	-	-57	18	12	-7	-61
REMAINDER OF LAFTA	-1 398	5 437	111	312	3 370	769	22	266	485
Argentina	1 972	5 600	48	109	645	-37	-120	1	96
Brazil	-2 406	1 103	56	79	2 303	686	156	88	539
Mexico	-957	-1 271	-67	14	427	120	1	166	-161
Paraguay	-82	5	1	16	20	4	-	18	19
Uruguay	75	-	73	94	-25	-4	-15	-7	-8
CENTRAL AMERICAN COMMON MARKET	-264	-99	2	77	456	419	2 098	287	11
Costa Rica	-52	-43	12	25	70	82	1 035	-1	-8
El Salvador	-61	10	-3	6	137	153	-	45	-2
Guatemala	-68	-65	-5	13	174	121	326	107	6
Honduras	-51	-	-5	17	8	31	628	4	-1
Nicaragua	-32	-1	10	16	67	32	109	132	16
CARICOM	-373	-179	-46	-8	845	1	81	-1	-6
Barbados	-21	-6	-5	-2	97	-	-	-	-
Guyana	-55	-8	40	-	312	-	-	-	-
Grenada	-8	-	-2	-	-4	-	8	-	-
Jamaica	-189	-106	-40	-4	267	-	73	-1	-2
Trinidad and Tobago	-100	-59	-39	-2	173	1	-	-	-4
OTHER COUNTRIES OF LATIN AMERICA	-1 083	-441	-298	6	6 229	59	500	-18	-59
Bahamas	-7	-5	-8	-3	-5	-	-1	-	-
Cuba	-834	-344	-220	-	5 141	2	-	-18	-1
Haiti	-89	-	-	1	17	21	-	-	-9
Panama	-53	-23	-	1	59	1	472	-	-19
Dominican Republic	-100	-70	-70	7	1 017	35	29	-	-30
TOTAL LATIN AMERICA	-6 059	3 942	-215	397	11 233	1 756	4 341	602	226
LAFTA									
Total exports	2 068	6 708	278	334	4 058	1 331	1 851	394	662
Total imports	-6 407	-2 048	-158	-12	-355	-54	-189	-60	-382
Net balance	-4 339	4 660	120	322	3 703	1 277	1 662	334	280
ANDEAN PACT									
Total exports	1	1	95	21	663	521	1 694	112	-
Total imports	-2 942	-778	-86	-11	-330	-13	-54	-43	-205
Net balance	-2 941	-777	9	10	333	508	1 640	69	-205
CENTRAL AMERICAN COMMON MARKET									
Total exports	-	23	22	77	456	419	2 120	289	28
Total imports	-264	-122	-13	-	-	-	-22	-2	-17
Net balance	-264	-99	9	77	456	419	2 098	287	11
CARICOM									
Total exports	-	3	-	-	859	2	82	-	-
Total imports	-373	-182	-298	-8	-14	-1	-1	-1	-6
Net balance	-373	-179	-298	-8	845	1	81	-1	-6
LATIN AMERICA									
Total exports	2 068	6 735	340	420	11 606	1 811	4 554	683	690
Total imports	-8 127	-2 793	-555	-23	-373	-55	-213	-81	-464
Net balance	-6 059	3 942	-215	397	11 233	1 756	4 341	602	226

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Production and Trade Yearbooks, 1974.

Table 16

LATIN AMERICA: PRINCIPAL AGRICULTURAL EXPORTS AND THEIR REGIONAL TRADE POTENTIAL

	1960	1965	1971	1972	1973	1974
<u>Thousands of tons</u>						
<u>Wheat</u>						
Exports	2 504	7 361	11 162	1 809	3 122	2 068
Imports	3 993	4 948	6 243	6 751	9 075	8 127
Net balance	-1 489	2 413	-5 081	-4 942	-5 953	-6 059
Trade potential	2 504	4 948	1 162	1 809	3 122	2 068
<u>Maize</u>						
Exports	2 608	2 933	7 761	3 607	4 134	6 735
Imports	133	385	839	1 175	2 666	2 793
Net balance	2 475	2 548	6 922	2 432	1 468	3 942
Trade potential	133	385	839	1 175	2 666	2 793
<u>Rice</u>						
Exports	340	541	399	160	279	340
Imports	400	625	456	388	455	555
Net balance	-60	-84	-57	-228	-176	-215
Trade potential		541	399	160	279	340
<u>Beef</u>						
Exports	832	956	547	839	678	420
Imports	109	112	67	59	40	23
Net balance	732	844	480	780	638	397
Trade potential	109	112	67	59	40	23
<u>Centrifugal sugar</u>						
Exports	9 757	9 026	9 249	9 893	11 716	11 606
Imports	160	176	186	307	374	373
Net balance	9 757	8 850	9 063	9 586	11 342	11 233
Trade potential	160	176	186	307	374	373
<u>Coffee</u>						
Exports	1 872	1 688	2 014	2 102	2 192	1 811
Imports	45	41	49	53	57	55
Net balance	1 827	1 647	1 965	2 049	2 135	1 756
Trade potential	45	41	49	53	57	55
<u>Bananas</u>						
Exports	2 812	3 169	4 722	4 827	5 067	4 554
Imports	265	243	236	188	225	213
Net balance	2 547	2 953	4 486	4 639	4 842	4 341
Trade potential	265	243	236	188	225	213
<u>Cotton (lint)</u>						
Exports	619	1 022	671	836	845	683
Imports	60	97	84	83	77	81
Net balance	559	925	587	753	768	602
Trade potential	60	97	84	83	77	81
<u>Vegetable oils</u>						
Exports	...	...	174	407	618	690
Imports	...	...	202	207	306	464
Net balance	...	...	-28	200	312	226
Trade potential	...	...	174	207	306	464
<u>Millions of dollars at current prices</u>						
<u>Total 9 products</u>						
Exports	3 481	3 925	5 005	6 204	8 352	11 025
Imports	414	529	887	994	1 902	2 994
Net balance	3 067	3 396	4 118	5 210	6 450	8 031
Trade potential	324	522	468	563	1 066	1 625

Source: Estimate of the ECLA/FAO Joint Agriculture Division on the basis of FAO data, Trade Yearbook, 1974.

Table 17
LAFTA: PRINCIPAL AGRICULTURAL EXPORTS AND THEIR REGIONAL TRADE POTENTIAL

	1971	1972	1973	1974
	<u>Thousands of tons</u>			
<u>Wheat</u>				
Exports	1 153	1 801	3 120	2 068
Imports	4 494	5 011	7 240	6 407
Net balance	-3 341	-3 210	-4 120	-4 339
Trade potential	1 153	1 801	3 120	2 068
<u>Maize</u>				
Exports	7 700	3 602	4 105	6 708
Imports	490	703	1 972	2 048
Net balance	7 210	2 899	2 133	4 660
Trade potential	490	703	1 972	2 048
<u>Rice</u>				
Exports	315	84	220	278
Imports	47	29	163	158
Net balance	268	55	57	120
Trade potential	47	29	163	158
<u>Beef</u>				
Exports	467	739	576	334
Imports	55	45	28	12
Net balance	412	694	548	322
Trade potential	55	45	28	12
<u>Centrifugal sugar</u>				
Exports	2 644	4 184	4 657	4 058
Imports	173	283	349	355
Net balance	2 471	3 901	4 308	3 703
Trade potential	173	283	349	355
<u>Coffee</u>				
Exports	1 638	1 672	1 742	1 331
Imports	48	52	52	54
Net balance	1 590	1 620	1 690	1 277
Trade potential	48	52	52	54
<u>Bananas</u>				
Exports	1 779	1 731	1 783	1 851
Imports	234	187	189	189
Net balance	1 545	1 544	1 594	1 662
Trade potential	234	187	189	189
<u>Cotton (lint)</u>				
Exports	495	601	595	394
Imports	62	63	56	60
Net balance	433	538	539	334
Trade potential	62	63	56	60
<u>Vegetable oils</u>				
Exports	164	392	597	662
Imports	136	137	253	382
Net balance	28	255	344	280
Trade potential	136	137	253	382
	<u>Millions of dollars at current prices</u>			
<u>Total 9 products</u>				
Exports	3 404	4 449	5 810	6 942
Imports	591	637	1 524	2 326
Net balance	2 813	3 762	4 286	4 616
Trade potential	352	439	913	1 342

Source: Estimate of the ECLA/FAO Joint Agriculture Division on the basis of FAO data, Trade Yearbook, 1974.

Table 18

ANDEAN PACT: PRINCIPAL AGRICULTURAL EXPORTS AND THEIR REGIONAL TRADE POTENTIAL

	1971	1972	1973	1974
	<u>Thousands of tons</u>			
<u>Wheat</u>				
Exports	-	1	1	1
Imports	2 394	2 376	2 955	2 942
Net balance	-2 394	-2 375	-2 954	-2 941
Trade potential	-	1	1	1
<u>Maize</u>				
Exports	-	-	1	1
Imports	471	504	815	778
Net balance	-471	-504	-814	-777
Trade potential	-	-	1	1
<u>Rice</u>				
Exports	-	3	83	95
Imports	44	19	115	86
Net balance	-44	-16	-32	9
Trade potential	-	3	83	86
<u>Beef</u>				
Exports	18	33	36	21
Imports	49	44	26	10
Net balance	-31	-11	10	11
Trade potential	18	33	26	10
<u>Centrifugal sugar</u>				
Exports	719	911	731	663
Imports	142	233	318	330
Net balance	577	678	413	333
Trade potential	142	233	318	330
<u>Coffee</u>				
Exports	506	517	531	521
Imports	11	10	9	13
Net balance	495	507	522	508
Trade potential	11	10	9	13
<u>Bananas</u>				
Exports	1 602	1 615	1 643	1 695
Imports	75	66	56	54
Net balance	1 527	1 549	1 587	1 641
Trade potential	75	66	56	54
<u>Cotton (lint)</u>				
Exports	96	105	107	112
Imports	33	38	42	43
Net balance	63	67	65	69
Trade potential	33	38	42	43
<u>Vegetable oils</u>				
Exports	-	2	-	-
Imports	117	117	182	205
Net balance	-117	-115	-182	-205
Trade potential	-	2	-	-
	<u>Millions of dollars at current prices</u>			
<u>Total 9 products</u>				
Exports	837	976	1 187	1 492
Imports	355	379	677	1 162
Net balance	482	597	510	330
Trade potential	71	113	156	276

Source: Prepared by the ECLA/FAO Joint Agriculture Division on the basis of FAO data, Trade Yearbook, 1974.

Table 19
CENTRAL AMERICAN COMMON MARKET: PRINCIPAL AGRICULTURAL EXPORTS
AND THEIR REGIONAL TRADE POTENTIAL

	1971	1972	1973	1974
	<u>Thousands of tons</u>			
<u>Wheat</u>				
Exports	1	1	-	-
Imports	292	295	321	264
Net balance	-291	-294	-321	-264
Trade potential	1	1	-	-
<u>Maize</u>				
Exports	60	38	27	24
Imports	48	65	207	122
Net balance	12	-27	-180	-198
Trade potential	48	38	27	24
<u>Rice</u>				
Exports	11	5	8	22
Imports	25	9	7	13
Net balance	-14	-4	1	9
Trade potential	11	5	7	13
<u>Beef</u>				
Exports	75	90	93	77
Imports	-	1	-	-
Net balance	75	89	93	77
Trade potential	-	1	-	-
<u>Centrifugal sugar</u>				
Exports	314	428	421	456
Imports	-	-	-	-
Net balance	314	428	421	456
Trade potential	-	-	-	-
<u>Coffee</u>				
Exports	319	369	383	419
Imports	-	-	-	-
Net balance	319	369	383	419
Trade potential	-	-	-	-
<u>Bananas</u>				
Exports	2 172	2 329	2 584	2 120
Imports	-	-	34	22
Net balance	2 172	2 329	2 550	2 098
Trade potential	-	-	34	22
<u>Cotton (lint)</u>				
Exports	176	236	250	289
Imports	2	2	2	2
Net balance	174	234	248	287
Trade potential	2	2	2	2
<u>Vegetable oils</u>				
Exports	11	16	21	28
Imports	14	10	14	17
Net balance	-3	6	7	11
Trade potential	11	10	14	17
	<u>Millions of dollars at current prices</u>			
<u>Total 9 products</u>				
Exports	702	866	1 070	1 318
Imports	35	35	75	88
Net balance	667	831	995	1 230
Trade potential	13	13	16	21

Source: Prepared by the ECLA/FAO Joint Agriculture Division on the basis of FAO data,
Trade Yearbook, 1974.

Table 20

CARICOM: PRINCIPAL AGRICULTURAL EXPORTS AND THEIR REGIONAL TRADE POTENTIAL

	1971	1972	1973	1974
	<u>Thousands of tons</u>			
<u>Wheat</u>				
Exports	9	8	2	1
Imports	347	336	355	373
Net balance	-338	-328	-353	-372
Trade potential	9	8	2	1
<u>Maize</u>				
Exports	-	1	3	3
Imports	118	183	152	182
Net balance	-118	-182	-149	-179
Trade potential	-	1	3	3
<u>Rice</u>				
Exports	74	71	49	40
Imports	78	76	51	86
Net balance	-4	-5	-2	-46
Trade potential	74	71	49	40
<u>Beef</u>				
Exports	-	-	-	-
Imports	8	9	10	9
Net balance	-8	-9	-10	-9
Trade potential	-	-	-	-
<u>Centrifugal sugar</u>				
Exports	942	886	744	859
Imports	7	18	8	14
Net balance	935	868	736	845
Trade potential	7	18	8	14
<u>Coffee</u>				
Exports	4	3	3	2
Imports	1	1	1	1
Net balance	3	2	2	1
Trade potential	1	1	1	1
<u>Bananas</u>				
Exports	142	142	120	82
Imports	-	-	-	1
Net balance	142	142	120	81
Trade potential	-	-	-	-
<u>Cotton (lint)</u>				
Exports	-	-	-	-
Imports	1	1	1	1
Net balance	-1	-1	-1	-1
Trade potential	-	-	-	-
<u>Vegetable oils</u>				
Exports	-	-	-	-
Imports	8	9	4	6
Net balance	-8	-9	-4	-6
Trade potential	-	-	-	-
	<u>Millions of dollars at current prices</u>			
<u>Total 9 products</u>				
Exports	150	168	150	317
Imports	67	76	99	174
Net balance	83	92	51	143
Trade potential	14	17	16	25

Source: Estimate of the ECLA/FAO Joint Agriculture Division on the basis of FAO data, Trade Yearbook, 1974.

Table 21
LATIN AMERICA: VOLUME OF LIVESTOCK PRODUCTION
(Percentage annual variation)

	1971	1972	1973	1974
<u>Meat (including changes in stocks)</u>	<u>1.2</u>	<u>5.6</u>	<u>3.7</u>	<u>2.0</u>
<u>Meat (excluding changes in stocks)</u>	<u>-5.4</u>	<u>6.9</u>	<u>1.0</u>	<u>2.1</u>
Beef (with changes in stocks)	0.7	5.3	5.0	2.0
Beef (without changes in stocks)	-10.4	7.6	0.5	2.1
Pork	0.9	7.5	-0.6	-1.2
Poultry	5.1	6.8	6.1	6.0
Mutton	-1.8	-14.7	-9.5	9.5
<u>Other livestock products</u>	<u>5.8</u>	<u>1.9</u>	<u>0.3</u>	<u>4.1</u>
Milk	4.9	4.1	-0.7	5.2
Eggs	3.9	5.1	2.6	3.1
Wool	-4.8	-3.7	-2.3	-2.3
Dried cattle hides	-10.7	5.5	3.3	0.3
<u>Total livestock products</u> (with changes in stocks)	<u>3.1</u>	<u>4.1</u>	<u>2.3</u>	<u>2.8</u>
<u>Total livestock products</u> (without changes in stocks)	<u>-0.3</u>	<u>4.5</u>	<u>0.9</u>	<u>3.1</u>

Source: Estimates of the Joint ECLA/FAO Agriculture Division based on FAO,
Production Yearbook, 1974, op.cit.

Table 22

LATIN AMERICA: STOCK, PRODUCTION AND RATES OF PRODUCTION OF BEEF CATTLE

(Stocks and production in thousands of head; percentage rates of production)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	
Latin America	Stock	197 416	203 783	210 950	216 150	217 115	222 097	228 278	236 511	246 257	255 569
	Production	29 597	30 928	32 733	34 958	37 313	37 042	33 360	35 150	35 927	36 411
	Rates of production	15.0	15.2	15.5	16.2	17.2	16.7	14.6	14.9	14.6	14.2
Mexico	Stock	21 845	22 395	22 800	23 294	23 628	24 876	25 124	25 827	27 042	27 500
	Production	3 076	3 171	3 154	3 393	3 550	3 734	3 648	3 884	3 626	3 737
	Rates of production	14.1	14.2	13.8	14.6	15.0	15.0	14.5	15.0	13.4	13.6
Central America	Stock	7 992	8 299	8 579	8 836	9 151	9 464	9 552	9 954	10 190	10 286
	Production	1 018	1 071	1 149	1 210	1 310	1 361	1 499	1 624	1 690	1 758
	Rates of production	12.7	12.9	13.4	13.7	14.3	14.4	15.7	16.3	16.6	17.1
Caribbean	Stock	8 527	8 722	8 852	9 296	9 390	9 279	9 623	9 816	10 005	10 414
	Production	1 307	1 332	1 351	1 436	1 451	1 397	1 420	1 477	1 499	1 533
	Rates of production	15.3	15.3	15.3	15.4	15.5	15.1	14.7	15.0	15.0	14.7
South America	Stock	159 091	164 432	170 818	174 729	174 914	178 462	183 533	190 493	198 804	207 386
	Production	24 196	25 354	27 079	28 919	31 002	30 550	26 793	28 465	29 112	29 383
	Rates of production	15.2	15.4	15.8	16.6	17.7	17.1	14.6	14.9	14.6	14.2
Argentina	Stock	46 709	48 800	51 227	51 465	48 298	48 440	49 786	52 300	54 771	58 000
	Production	9 229	11 193	12 728	12 965	13 981	13 028	9 604	10 077	9 832	10 115
	Rates of production	19.8	22.9	24.8	25.2	28.9	26.9	19.3	19.3	17.9	17.4
Brazil	Stock	63 832	66 002	68 246	70 567	72 966	75 447	78 258	81 000	85 000	88 079
	Production	7 898	7 657	7 851	8 779	9 526	9 594	9 338	10 892	11 456	10 647
	Rates of production	12.5	11.6	11.5	12.4	13.1	12.7	11.9	13.4	13.5	12.1
Colombia	Stock	16 882	17 372	18 082	18 830	19 500	20 200	20 800	21 400	22 100	23 032
	Production	2 399	2 199	2 156	2 262	2 366	2 577	2 825	2 563	2 507	2 650
	Rates of production	14.2	12.7	11.9	12.0	12.1	12.8	13.6	12.0	11.3	11.5
Paraguay	Stock	5 461	5 461	5 461	5 485	5 529	5 529	5 600	5 700	5 769	5 814
	Production	613	595	589	588	573	632	654	684	734	733
	Rates of production	11.2	10.9	10.8	10.7	10.4	11.4	11.7	12.0	12.7	12.6
Uruguay	Stock	8 142	8 183	8 600	9 000	8 900	8 564	8 700	9 273	9 860	10 790
	Production	1 609	1 110	1 158	1 604	1 679	1 644	1 309	1 248	1 461	1 580
	Rates of production	19.8	13.6	13.5	17.8	18.9	19.2	15.0	13.5	14.8	14.7
Other	Stock	18 615	18 609	19 202	19 382	19 663	20 225	20 524	21 016	21 317	21 672
	Production	2 448	2 600	2 597	2 721	2 877	3 075	3 063	3 001	3 122	3 656
	Rates of production	13.2	14.0	13.5	14.0	14.6	15.2	14.9	14.3	14.7	16.9

Source: As for table 21 of the annex.

Table 23
LATIN AMERICA: VOLUME OF AGRICULTURAL PRODUCTIONS^{a/}
(Percentage annual variation)

	1971	1972	1973	1974
Argentina	-0.2	-0.5	9.2	6.4
Barbados ^{b/}	-10.9	-10.9	5.3	-8.0
Bolivia	5.0	5.2	8.1	-0.2
Brazil	2.4	5.5	-0.8	7.5
Colombia	3.2	1.7	4.7	6.4
Costa Rica	6.7	4.5	-2.0	0.4
Cuba ^{b/}	-19.5	-2.9	10.0	4.9
Chile	4.3	-1.6	-16.4	16.9
Ecuador	3.0	-3.6	6.0	3.3
El Salvador	21.0	-14.0	8.6	2.5
Guatemala	6.8	3.4	2.8	1.5
Guyana	2.7	-7.2	12.7	-4.4
Haiti	3.4	1.1	1.9	0.8
Honduras	12.8	-2.0	6.3	-5.9
Jamaica	4.6	-0.9	-8.0	5.1
Mexico	4.1	1.3	1.8	1.0
Nicaragua	5.1	0.7	0.7	2.1
Panama	9.2	-4.8	4.3	5.3
Paraguay	1.4	-6.3	7.2	6.9
Peru	-0.4	-1.7	-1.9	-4.2
Dominican Republic	6.0	3.6	-0.2	7.9
Trinidad and Tobago	-1.3	5.0	-7.6	2.7
Uruguay	24.3	-24.0	10.0	9.9
Venezuela	0.8	-0.9	7.1	6.1

Source: As for table 21 of the annex.

^{a/} Including changes in stocks of livestock.

^{b/} Excluding changes in stocks, for lack of information.

Table 24

LATIN AMERICA: AREA HARVESTED 1959/1961-1974

	Thousands of hectares											Index: 1970 = 100			
	1959-		1961-		1970	1971	1972	1973	1974	1959-		1971	1972	1973	1974
	1959-	1961-	1959-	1961-						1959-	1961-				
Mexico	11 458	14 225	14 367	14 210	4 210	4 261	4 460	4 645	4 722	79.7	99.0	98.7	96.9	99.9	105.7
Central America and Panama	2 670	4 400	4 210	4 210	4 210	4 261	4 460	4 645	4 722	87.2	104.5	101.2	105.2	110.2	114.0
Costa Rica	321	401	352	357	357	357	357	353	395	91.2	113.9	101.4	101.4	100.3	112.2
El Salvador	585	708	617	669	681	686	697	697	697	94.8	114.7	108.4	110.4	111.8	113.0
Guatemala	1 257	1 523	1 490	1 477	1 676	1 739	1 779	1 779	1 779	84.4	102.2	99.1	112.5	116.7	119.4
Honduras	618	617	594	619	644	692	662	662	662	104.0	104.0	104.2	108.4	116.5	111.4
Nicaragua	518	819	703	697	637	718	794	794	794	73.7	116.5	99.1	90.6	102.1	112.9
Panama	371	332	454	442	465	457	473	473	473	81.7	73.1	97.4	102.4	100.7	104.2
Caribbean	3 419	2 445	2 858	2 704	2 440	2 663	2 663	2 663	2 692	88.6	89.3	96.0	89.2	94.2	95.2
Bahamas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barbados	22	22	20	21	21	20	18	18	18	110.0	110.0	105.0	105.0	100.0	90.0
Cuba	1 710	1 679	2 026	1 890	1 598	1 810	1 817	1 817	1 817	84.4	82.9	93.3	78.8	89.3	89.7
Grenada	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haiti	867	917	897	880	895	928	930	930	930	96.7	102.2	98.1	99.8	103.5	103.7
Jamaica	124	134	170	173	180	175	180	175	180	72.9	78.8	101.8	105.9	102.9	105.8
Dominican Republic	625	618	667	662	666	648	672	672	672	93.7	92.7	99.3	99.9	97.2	100.7
Trinidad and Tobago	71	75	78	78	80	82	82	82	82	91.0	96.2	100.0	102.6	105.1	105.1
South America	50 750	56 122	62 033	64 091	63 981	63 833	67 401	63 833	67 401	81.5	90.5	103.3	103.1	102.9	108.5
Argentina	14 498	14 745	15 232	16 003	15 651	15 455	15 037	15 455	15 037	95.2	96.8	105.1	102.7	101.5	98.7
Bolivia	613	680	771	783	820	859	887	859	887	79.5	88.2	101.6	106.4	111.4	115.0
Brazil	25 192	29 441	33 905	35 091	36 018	35 722	39 380	35 722	39 380	74.3	86.8	103.5	106.2	105.4	115.9
Chile	1 544	1 424	1 425	1 436	1 463	1 197	1 412	1 197	1 412	108.4	100.0	100.8	102.7	84.0	99.1
Colombia	3 192	3 546	3 580	3 636	3 510	3 761	3 799	3 761	3 799	89.2	99.1	101.6	98.0	105.1	106.1
Ecuador	1 024	1 425	1 681	1 740	1 690	1 576	1 635	1 576	1 635	60.9	84.8	103.7	100.5	93.8	97.3
Ecuador	74	74	77	80	79	79	79	79	79	96.1	96.1	103.9	102.6	102.6	102.6
Guyana	336	497	655	663	652	647	713	647	713	51.3	75.9	101.2	99.5	98.8	108.9
Peru	1 612	1 727	1 871	1 920	1 766	1 913	1 700	1 913	1 700	86.1	92.3	102.6	94.4	102.2	90.8
Uruguay	1 415	1 231	1 090	998	838	1 037	1 126	1 037	1 126	129.8	112.9	91.6	76.9	95.1	103.3
Venezuela	1 250	1 332	1 746	1 741	1 494	1 587	1 633	1 587	1 633	71.6	76.3	99.7	85.6	90.9	93.5
Latin America	69 257	78 192	84 468	86 249	85 807	86 491	91 080	86 491	91 080	82.0	92.5	102.0	101.5	102.3	107.7

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of FAO, Production Yearbook, 1974.

Table 25
LATIN AMERICA: AREA HARVESTED, BY GROUPS OF CROPS

	Millions of hectares						Index: 1970 = 100					
	1960-1962	1970	1971	1972	1973	1974	1960-1962	1970	1971	1972	1973	1974
Cereals	36.3	46.5	48.3	47.0	47.0	49.2	78	100	104	101	101	106
Roots and tubers	3.3	4.2	4.2	4.2	4.1	4.2	79	100	100	100	98	100
Vegetables	0.7	0.8	0.8	0.9	0.9	0.9	88	100	100	103	103	103
Oil seeds	4.6	6.5	6.6	7.3	8.4	9.7	71	100	102	112	129	149
Sugar crops	4.2	5.2	5.1	5.1	5.3	5.4	81	100	98	98	102	104
Fruit	1.9	2.3	2.4	2.4	2.4	2.5	83	100	104	104	104	109
Beverages and tobacco	8.5	6.8	6.9	7.0	6.4	6.9	125	100	101	103	94	101
Vegetable fibres	4.6	5.2	4.6	5.1	4.8	5.2	88	100	88	98	92	100
Pulses	5.6	7.0	7.3	6.8	7.2	7.0	80	100	104	97	103	100
<u>Total</u>	<u>69.7</u>	<u>84.5</u>	<u>86.2</u>	<u>85.8</u>	<u>86.5</u>	<u>91.1</u>	<u>82</u>	<u>100</u>	<u>102</u>	<u>102</u>	<u>102</u>	<u>108</u>

Source: Estimate of the ECLA/FAO Joint Agriculture Division, on the basis of FAO, Production Yearbook, 1974.

Table 26
INTERNATIONAL PRICES FOR TYPICAL FERTILIZER PRODUCTS^{a/}
(US\$ per metric ton FOB suppliers' port)

	Western Europe	United States, Gulf		North America
	Urea ^{b/} (bagged)	Triple superphosphate ^{c/} (in bulk)	Diammonium ^{d/} phosphate (in bulk)	Potassium chloride ^{e/} (in bulk)
1965 I	93	...	...	30
II	99	59	...	
1966 I	95	...	100f/	28
II	84	...	82g/	
1967 I	83	48	69	26
II	76	47	69	
1968 I	69	39	66	24
II	63	36	56	
1969 I	58	38	63	22
II	54	40	54	
1970 I	50	44	53	31
II	47	41	56	
1971 I	44	40	58	32
II	48	47	66	
1972 I	51	60	83	33
II	68	75	99	
1973 I	82	84	105	42
II	108	115	133	
1974 I	278	254	297	51
II	351	342	381	78
1975 I	265	248	286	88
Average July-October	125	130	155	70

Source: The British Sulphur Corporation.

a/ All the price series represent averages for the period, the source used being export tenders.

b/ Single nitrogenous fertilizer, granular, with 46% N.

c/ Triple superphosphate: Single granular phosphate fertilizer with 46% P₂O₅.

d/ Diammonium phosphate: Compound NP fertilizer, granular with 18% N and 46% P₂O₅.

e/ Single potassium fertilizer, ground, with 60% K₂O.

f/ Offer by India of bagged supplies, without external credit.

g/ Allotments of bagged supplies under USAID contract.

Table 27
FERTILIZER CONSUMPTION
(Thousands of tons)

	Nitrogen	Percent age	Phospho- rous	Percent age	Potas- sium	Percent age	NPK	Percent age
<u>Mexico</u>								
1970/1971	438.1	32.3	129.4	14.1	25.8	4.0	593.3	20.3
1971/1972	519.1	35.9	143.7	14.5	30.2	4.6	693.0	22.4
1972/1973	470.9	28.9	163.4	13.1	35.5	4.6	669.8	18.4
1973/1974	531.2	29.4	180.6	13.0	35.7	3.9	747.5	18.2
1974/1975	566.0	32.3	201.7	16.1	39.8	4.8	807.5	21.0
<u>Central America</u>								
1970/1971	157.7	11.6	41.4	4.5	32.5	5.0	231.6	7.9
1971/1972	151.6	10.5	53.4	5.4	34.8	5.3	239.8	7.7
1972/1973	161.5	9.9	61.7	5.0	41.1	5.3	264.3	7.2
1973/1974	199.5	11.0	75.6	5.4	54.9	6.1	330.0	8.1
1974/1975	172.3	9.8	60.1	4.8	33.0	3.9	265.4	6.9
<u>Caribbean</u>								
1970/1971	204.1	15.0	115.7	15.0	188.4	29.1	508.2	17.4
1971/1972	181.2	12.5	89.6	12.5	146.5	22.2	417.3	13.5
1972/1973	183.2	11.2	78.7	11.2	127.6	16.5	389.5	10.7
1973/1974	210.4	11.6	88.2	11.6	154.4	17.0	453.0	11.0
1974/1975	247.4	14.1	101.1	14.1	169.4	20.1	517.9	13.5
<u>South America</u>								
1970/1971	558.6	41.1	630.2	68.8	399.7	61.9	1 588.5	54.4
1971/1972	593.2	41.0	706.0	71.1	447.0	67.9	1 746.2	56.4
1972/1973	813.5	49.9	938.4	75.6	570.3	73.6	2 322.2	63.7
1973/1974	865.8	48.0	1 047.9	75.3	661.8	73.0	2 575.5	62.7
1974/1975	769.3	43.8	888.7	71.0	598.6	71.2	2 256.6	58.6
<u>Latin America</u>								
1970/1971	1 358.5	100.0	916.7	100.0	646.5	100.0	2 921.6	100.0
1971/1972	1 445.1	100.0	992.7	100.0	658.4	100.0	3 096.1	100.0
1972/1973	1 629.1	100.0	1 242.2	100.0	774.6	100.0	3 645.9	100.0
1973/1974	1 806.9	100.0	1 392.3	100.0	906.7	100.0	4 105.9	100.0
1974/1975	1 755.0	100.0	1 251.6	100.0	840.8	100.0	3 847.4	100.0

Source: ECLA/FAO Joint Agricultural Division.

Table 28
SOUTH AMERICA: ESTIMATED BREAKDOWN OF FERTILIZER USE BY GROUPS OF CROPS, 1970^{a/}
(Percentages)

	Cereals	Starchy roots	Sugar crops	Pulses	Fibres	Oil seeds	Fruit	Vegetables	Decorative	Other	Total
Argentina	12.9	18.9	7.3	-	3.2	13.3	22.3	10.1	-	11.9	100.0
Bolivia	28.6	28.6	7.2	-	17.8	-	17.8	-	-	-	100.0
Brazil	15.7	1.3	13.8	2.1	10.3	13.8	6.3	2.1	27.2	7.4	100.0
Colombia	32.1	2.4	11.2	0.8	13.2	0.7	7.7	1.8	24.2	5.0	100.0
Chile	52.4	4.6	13.8	1.8	-	3.9	9.7	4.5	-	9.3	100.0
Ecuador	16.1	5.2	18.9	-	-	-	44.7	7.8	7.1	0.2	100.0
Paraguay	13.8	-	-	-	-	24.1	31.0	-	6.9	24.1	100.0
Peru	41.8	8.8	11.9	2.5	15.7	-	7.0	5.3	1.8	5.2	100.0
Uruguay	66.1	1.5	17.9	-	-	-	4.9	0.3	-	9.3	100.0
Venezuela	31.8	1.5	23.9	-	3.5	4.2	21.9	3.3	-	9.9	100.0

Source: FAO, Perspective Study of Agricultural Development for South America.

a/ Includes the principal nutrients, viz., Nitrogen (N), Phosphorous (P₂ O₅), Potassium (K₂O).

Table 29

LATIN AMERICA: PRODUCTION, CONSUMPTION, AND EXTERNAL TRADE IN FOOD
PRODUCTS EXPRESSED IN DAILY CALORIE INTAKE PER CAPITA

(Average 1971-1973)

	Production	Human consumption	Exports	Imports	Net external trade balance
LAPTA	2 998	2 622	673	297	376
ANDEAN PACT	1 895	2 325	175	605	-430
Bolivia	1 647	1 901	57	311	-254
Colombia	2 042	2 140	125	223	-98
Chile	1 691	2 903	29	1 241	-1 212
Ecuador	2 401	2 030	590	219	371
Peru	2 025	2 341	312	628	-316
Venezuela	1 424	2 532	53	1 161	-1 108
REMAINDER OF LAPTA	3 419	2 735	863	179	684
Argentina	7 355	3 310	4 060	15	4 045
Brazil	2 874	2 588	481	195	286
Mexico	2 701	2 732	170	201	-31
Paraguay	2 845	2 847	215	217	-2
Uruguay	3 025	2 956	612	543	69
CENTRAL AMERICAN COMMON MARKET	2 441	2 196	547	302	245
Costa Rica	3 510	2 766	1 486	742	744
El Salvador	1 936	1 910	329	303	26
Guatemala	2 154	2 059	258	163	95
Honduras	2 709	2 179	735	205	530
Nicaragua	2 833	2 598	645	410	235
CARICOM	3 620	2 774	2 113	1 267	846
Barbados	6 079	3 263	4 340	1 524	2 816
Guyana	6 273	2 610	4 341	678	3 663
Grenada	1 372	2 084	467	1 179	-712
Jamaica	2 858	2 718	1 430	1 290	140
Trinidad and Tobago	2 749	2 882	1 463	1 596	-133
OTHER COUNTRIES OF LATIN AMERICA	4 170	2 408	2 678	916	1 762
Bahamas	1 371	3 012	-	1 641	-1 641
Cuba	5 766	2 515	4 819	1 640	3 251
Haiti	2 157	2 284	35	162	-127
Panama	2 790	2 542	980	732	248
Dominican Republic	4 036	2 277	2 199	440	1 759
TOTAL LATIN AMERICA	3 074	2 600	828	354	474

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Production and Trade Yearbooks, 1974.

Table 30
LATIN AMERICA: PRODUCTION, CONSUMPTION AND EXTERNAL TRADE IN FOOD
PRODUCTS EXPRESSED IN DAILY CALORIE INTAKE PER CAPITA, 1974

	Production	Human Consumption	Exports	Imports	Net external trade balance
LAPTA	3 072	2 750	688	366	322
ANDEAN PACT	1 842	2 353	158	669	-511
Bolivia	1 724	1 988	81	345	-264
Colombia	2 138	2 238	104	204	-100
Chile	1 743	3 016	52	1 325	-1 273
Ecuador	2 361	2 110	517	266	251
Peru	1 655	2 160	273	778	-505
Venezuela	1 284	2 555	45	1 316	-1 271
REMAINDER OF LAPTA	3 543	2 902	891	250	641
Argentina	8 090	3 516	4 590	16	4 574
Brazil	3 101	2 832	462	193	269
Mexico	2 432	2 791	103	462	-359
Paraguay	2 853	2 787	374	308	66
Uruguay	3 070	2 492	736	158	578
CENTRAL AMERICAN COMMON MARKET	2 380	2 102	541	263	278
Costa Rica	3 284	2 633	1 291	640	651
El Salvador	2 059	1 858	399	198	201
Guatemala	2 099	1 931	407	238	169
Honduras	2 238	2 022	407	191	216
Nicaragua	3 100	2 636	676	212	464
CARICOM	3 406	2 940	2 002	1 536	466
Barbados	5 571	3 398	3 670	1 497	2 173
Guyana	6 211	2 866	4 089	744	3 345
Grenada	1 284	2 080	381	1 177	-796
Jamaica	2 509	2 845	1 291	1 627	-336
Trinidad and Tobago	2 663	3 069	1 576	1 982	-406
OTHER COUNTRIES OF LATIN AMERICA	4 345	2 494	2 834	983	1 851
Bahamas	1 331	3 049	-	1 718	-1 718
Cuba	6 263	2 570	5 391	1 698	3 693
Haiti	2 130	2 272	30	172	-142
Panama	2 970	2 860	885	775	110
Dominican Republic	3 912	2 467	2 073	628	1 445
TOTAL LATIN AMERICA	3 128	2 700	848	420	428

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Production and Trade Yearbooks, 1974.

Table 31

LATIN AMERICA: APPARENT CONSUMPTION OF CALORIES AND PROTEINS, PER CAPITA

	1971-1973			1974		
	Calories (units per day)	Proteins (grammes per day)	Calorie supply as a percentage of average requirements	Calories (units per day)	Proteins (grammes per day)	Calorie supply as a percentage of average requirements
LAFTA <u>a/</u>	2 622	66	109	2 750	67	115
ANDEAN PACT <u>a/</u>	2 325	58	97	2 353	58	98
Bolivia	1 901	46	80	1 988	47	83
Colombia	2 140	49	92	2 238	50	96
Chile	2 903	81	119	3 016	86	124
Ecuador	2 030	47	88	2 110	47	91
Peru	2 341	59	99	2 160	53	92
Venezuela	2 532	64	102	2 555	65	102
REMAINDER OF LAFTA	2 735	69	114	2 902	71	121
Argentina	3 310	100	125	3 516	118	133
Brazil	2 588	63	108	2 832	61	118
Mexico	2 732	65	118	2 791	66	121
Paraguay	2 847	81	123	2 787	81	120
Uruguay	2 956	96	110	2 492	94	93
CENTRAL AMERICAN COMMON MARKET <u>a/</u>	2 196	59	92	2 102	56	88
Costa Rica	2 766	65	122	2 633	58	117
El Salvador	1 910	52	83	1 858	51	81
Guatemala	2 059	57	89	1 931	53	83
Honduras	2 179	57	96	2 022	55	89
Nicaragua	2 598	74	116	2 636	73	118
CARICOM <u>a/</u>	2 774	73	116	2 940	77	123
Barbados	3 263	87	142	3 398	92	147
Guyana	2 610	60	115	2 866	65	126
Grenada	2 084	55	87	2 080	57	87
Jamaica	2 718	73	122	2 845	75	128
Trinidad and Tobago	2 882	78	118	3 069	85	126
OTHER COUNTRIES OF LATIN AMERICA <u>a/</u>	2 408	51	100	2 494	53	104
Bahamas	3 012	87	126	3 049	89	127
Cuba <u>b/</u>	2 515	-	105	2 570	-	107
Haiti	2 284	51	101	2 272	52	100
Panama	2 542	61	109	2 860	64	123
Dominican Republic	2 277	47	101	2 467	50	109
TOTAL LATIN AMERICA <u>a/</u>	2 600	65	108	2 700	66	113

Source: Estimates of the ECLA/FAO Joint Agriculture Division on the basis of FAO, Production and Trade Yearbooks, 1974.

a/ Average needs: 2 400.

b/ Estimates.

Table 32
 LATIN AMERICA: PERCENTAGE CONTRIBUTION OF THE DIFFERENT FOODS G
 (Average 1971-1974)

Country	Wheat	Rice	Maize a/	Tubers and roots	Refined sugar	Pulses	Fats and oils
Argentina	27	2	1	5	13	1	12
Bolivia	16	6	18	16	14	1	9
Brazil	10	17	6	12	17	8	7
Colombia	6	12	14	9	24	2	4
Costa Rica	11	14	11	2	24	4	12
Cuba	27	16	-	8	21	5	5
Chile	42	4	2	3	13	2	10
Ecuador	8	10	14	12	16	4	8
El Salvador	8	6	41	1	15	4	9
Guatemala	9	1	50	-	13	5	7
Guyana	13	34	1	4	15	2	10
Haiti	5	7	39	7	13	4	4
Honduras	7	3	39	2	18	6	9
Jamaica	27	7	5	8	17	1	10
Mexico	11	2	36	1	18	5	8
Nicaragua	6	11	31	1	13	7	9
Panama	3	9	30	4	19	4	8
Paraguay	12	5	15	16	9	5	7
Peru	18	11	10	14	14	2	8
Dominican Republic	7	15	5	15	16	7	10
Trinidad and Tobago	31	11	1	3	17	7	11
Uruguay	29	3	2	4	14	1	10
Venezuela	14	7	15	4	17	2	9
<u>Latin America</u>	14	10	14	8	17	5	8

Source: ECLA/FAO Joint Agriculture Division on the basis of FAO data.

a/ Maize and barley.

GROUPS TO THE CONSUMPTION OF CALORIES

Vegetables and fruit	Beef	Mutton and pig meat	Poultry meat	Eggs	Milk	Other
5	11	7	1	1	8	6
8	3	5	-	-	2	2
6	3	4	1	1	5	3
10	5	2	1	-	9	2
5	4	2	1	1	9	-
3	3	5	1	1	5	-
5	2	4	1	1	6	5
13	2	5	-	-	6	2
6	2	2	-	1	5	-
4	2	2	1	1	5	-
4	1	2	2	1	7	4
10	1	3	-	-	2	5
6	1	2	-	-	7	-
7	2	4	3	1	6	2
4	2	4	-	1	4	4
6	4	3	-	1	7	1
8	7	1	1	1	5	-
10	9	5	1	1	2	3
7	2	4	1	-	7	2
12	2	2	2	-	7	-
4	1	3	5	-	6	-
3	9	11	1	-	11	2
10	5	3	2	1	7	4
6	4	4	1	1	6	2

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