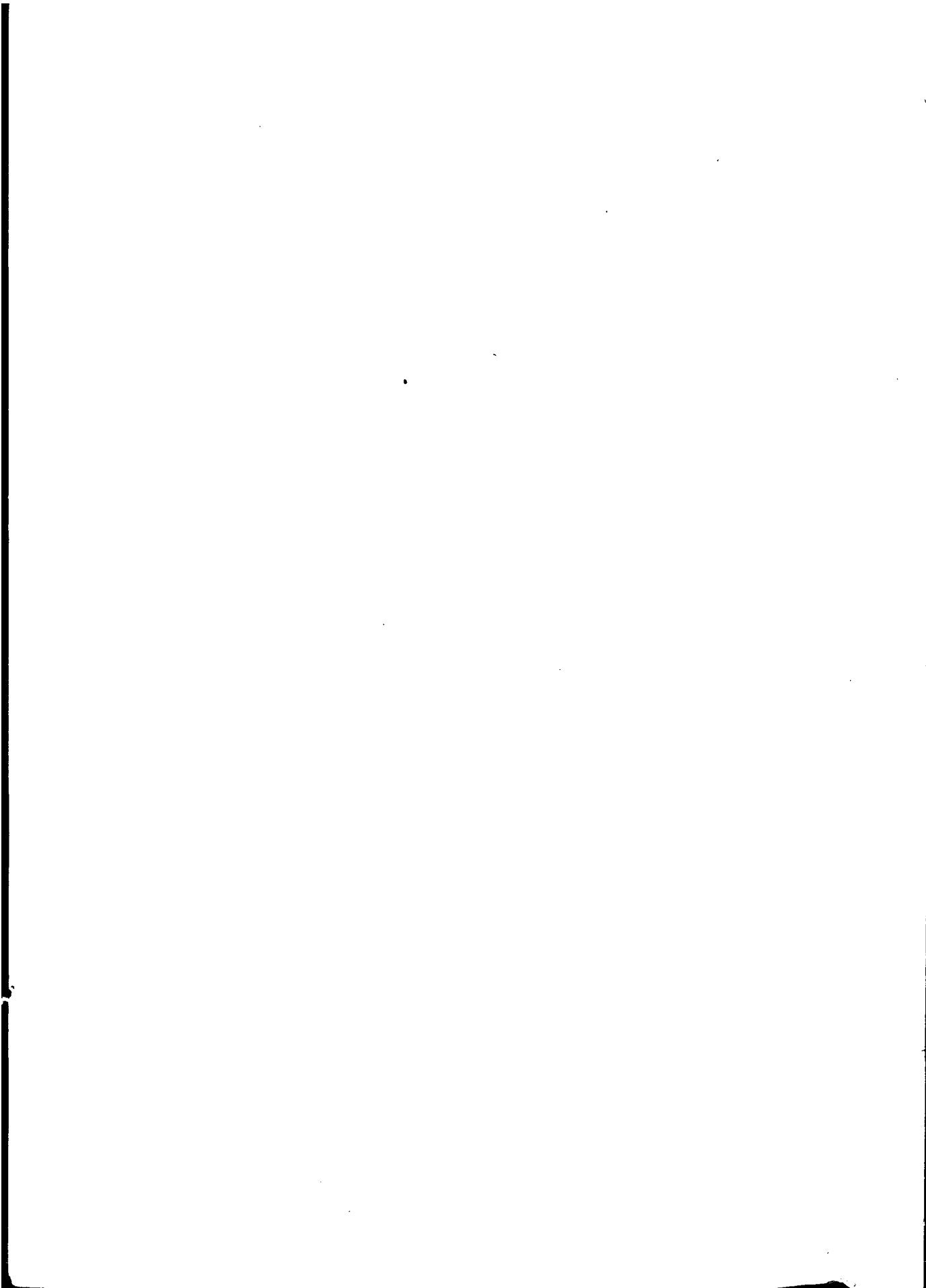


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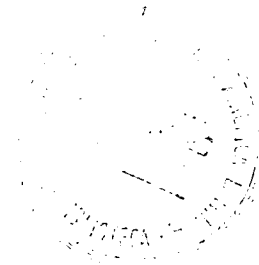




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EXPLANATION OF SYMBOLS

Three dots (. . .) indicate that data are not available or are not separately reported.

A dash (—) indicates that the amount is nil or negligible.

A minus sign (—300) indicates a deficit or a decrease.

A stroke (/) indicates a crop year or a fiscal year, e.g., 1954/55.

An asterisk (*) is used to indicate partially or totally estimated figures.

“Tons” and “dollars” are metric tons and United States dollars, respectively, unless otherwise stated.

Minor discrepancies in totals and percentages are due to rounding.

LATIN AMERICA AND THE CREATION OF A NEW INTERNATIONAL ORDER¹

I. THE EVOLUTION OF THE LATIN AMERICAN ECONOMY IN 1973

In 1973 the Latin American economy showed two distinct features: while the rapid rate of growth of recent years was maintained in global terms, towards the end of the year the positive and negative impacts of the international economic conjuncture hit the region with their full force.

Latin America's growth rate in 1973 was 7.4 per cent, thus giving an average of 6.8 per cent for the period of the present decade which has so far elapsed. The rise in *per capita* income in the same year was 4.5 per cent, which is quite a high figure considering the big population increase recorded for the region as a whole. As in previous years, however, this figure conceals marked disparities, so it should not be viewed with unqualified optimism. The relative weight of Brazil, which continued to record a very high rate of growth (11 per cent), tends to influence the regional average, although the rate of growth of the rest of the countries (6 per cent) is nevertheless higher than the year before. There were a number of other countries (Ecuador, Guatemala, Mexico, the Dominican Republic and Venezuela) which also registered growth rates over the regional average; in contrast, the countries which had the lowest growth rates included many of the relatively less-developed nations.

While the limitations of a global index like that referred to are well known insofar as the evaluation of the economic and social significance of the development process is concerned, it is nevertheless worth emphasizing that Latin America shows a sustained tendency to increase its capacity for generating goods and services. This capacity has been based fundamentally on the expansion of the industrial sector, con-

struction and basic services, accompanied this year by the substantial growth recorded in the mining sector. Manufacturing kept up its rapid growth (9.2 per cent), and even excluding the influence of Brazil, which weighed heavily in the total with its manufacturing growth rate of 15.8 per cent, the rate of manufacturing expansion of the rest of the countries still attained an average of 6.7 per cent. In contrast, agricultural performance continued to be erratic and traditionally sluggish as compared with the other indicators; according to preliminary national accounts estimates it grew by only 3.6 per cent in 1973.

The two most significant features of the 1973 economic situation are reflected in the behaviour of the external sector and the evolution of international prices. As regards the first of these, Latin America continued to expand its exports of traditional and non-traditional goods. Some Latin American countries have achieved quite spectacular success with their exports, and this has played a considerable part in the expansion of the region's product, especially its manufacturing output. Even taking account of the rise in prices, the growth achieved is considerable in real terms. The dollar value of the region's exports increased by 43 per cent in 1973, thus greatly improving on the already high growth rate of 14 per cent achieved in 1972. This big increase is accounted for by a 33 per cent rise in prices and a 7 per cent increase in the volumes exported. The growth of the product was also accompanied by a notable increase in imports, however. The physical volume of the region's imports increased by 9 per cent—i.e., more than that of exports—while their prices rose by 18 per cent. As a consequence of these various factors there was a surplus on the region's trade balance, and this, together with the large net inflow of non-compensatory capital, resulted in an increase of 4,200 million dollars in the international reserves, which can be considered a truly significant milestone for Latin America.

¹ Statement by Mr. Enrique V. Iglesias, Executive Secretary of the Economic Commission for Latin America, at the fifty-seventh session of the Economic and Social Council.

The favourable trend of the trade balance must be interpreted with caution, however, and two facts need to be taken into account in this connexion: (a) if the commodity price increases of the past year are considered in the context of the period 1948-1973 it will be noted that they only compensate—in many cases only to a partial extent—for the loss of purchasing power of the dollar compared with 1948, while the index of 124 achieved in 1973 by the terms-of-trade relationship (taking the base as 1963=100) must be compared with the average indexes of 132 and 119 achieved in the two halves of the 1950s; and (b) there is no guarantee that the higher prices achieved by many primary products in 1973 are going to be maintained, for some of them have already shown signs of weakening in the first few months of 1974. Furthermore, in terms of the goods they can buy, there can be no denying that the purchasing power of the dollar and most of the other main currencies tends to decline as a result of world inflation, so that clear tendencies towards a similar decline in the terms of trade are visible.

The improvement of 13 per cent in the terms of trade and 20 per cent in the purchasing power of exports that took place in 1973 might be taken to mean that the chronic external bottleneck is beginning to be overcome, but in actual fact the growth rate of imports—which in recent years was already greater than that of the product—increased even more as a result of a structural change in the behaviour of the economy deriving from the greater availability of foreign currency. As the trend in the terms of trade ceased to be favourable, however, the negative effect on trade balances and on economic expansion quickly made itself acutely felt.

There is another reason why the increase in the price of imports should be a cause for concern. The Latin American countries that suffered from chronic inflationary tendencies have increased their rate of inflation, while those which have in the past always been jealous guardians of monetary stability have experienced unprecedented rises largely because of the higher prices for manufactured goods and imported raw materials. Thus, the phenomenon of inflation, which was chronic in some countries and circumstantial in others, has spread to almost all Latin American countries, and the inflation of the industrialized countries has been imported along with their goods.

In spite of the encouraging picture offered by global indicators and certain key sectors,

the trends of these figures should not be allowed to conceal the persistence of the region's basic problems which we have so often brought to the attention of Governments. High growth rates are necessary and pave the way for the swifter improvement of the situation of most countries, but they are not enough to affirm that parallel with these indexes, solutions are being found at the desired speed for some stubborn social problems such as income distribution and employment. I do not, however, wish to go into these problems on this occasion, since I will prefer to concentrate on the significance of the type of growth that is taking place in Latin America and the considerable bearing that the evolution of the international economic situation has on it.

The rapid growth of the product in Latin America as a whole and the region's style of development are closely linked with the behaviour of the external sector. One of the bottle-necks—the external sector—has improved substantially thanks to the region's progress in the field of exports, its ability to penetrate international markets, the improvement of its domestic policies and the general expansion of industrial production and of certain commodity-exporting sectors. These domestic efforts have been aided in the past two years by the favourable trend in terms of trade.

Since its creation, the ECLA secretariat has emphasized the essential role of the balance-of-payments behaviour in the development of the region. This point must be made even more emphatically today, when the international situation, with its spectre of unforeseeable economic instability, raises a series of fundamental questions regarding our immediate future:

(a) Will the member countries of the Organisation for Economic Co-operation and Development (OECD) keep up the rapid rates of expansion experienced in 1972 and 1973 in their gross product (6 to 7 per cent), their industrial production and their imports from developing countries (which rose by 43.4 per cent last year)?

(b) Will there be continuation to the basic international market conditions that permit the progressive and growing expansion of the region's existing and potential export capacity necessarily to be maintained?

(c) Will the terms of trade continue at the present level or will a recessive phase develop in the industrialized countries and halt or reverse the recent trend?

(d) What tendencies can be expected in the provision of external financial assistance for development?

Faced with these questions, the ECLA secretariat has given the matter much thought and

has tried to go deeper into the features of the present international economic situation. Allow me, therefore, to make a few remarks, based on experience in Latin America, about the way our immediate future looks to us.

II. CRITICAL ASPECTS OF THE PRESENT INTERNATIONAL SITUATION

The world has faced many very serious economic problems in recent decades. The complexity of the current phenomena, the uncertainty of the immediate future and the high degree of interdependence of all the nations of the world are such, however, that the present international situation is one of the most critical of the post-war period. An enormous number of variables are involved, none of which can be taken in isolation without allowing for all the rest, and there is no single, main cause where the answers can be sought. On the contrary, the monetary, financial or trade phenomena all intersect, and this makes it far more difficult to identify any global hypotheses that could be used as a starting point for correcting the situation and establishing a new set of rules. The truth is that the phenomenon is not just economic in nature.

Indeed, when appraising the present international situation one inescapable reality is that the crisis coincides with significant changes in other fields that are not specifically economic. On the one hand, there has been a profound transformation in the political scene and in the post-war power structure. On the other, there is the presence—in each country and in world public opinion as a whole—of new values that future societies will have to take into account if there is to be coexistence among nations. The questioning of the real worth of the type of progress achieved in the industrial society, which has not been able to resolve such basic problems as the quality of life or the fundamental equilibrium of man's relationship with nature, is an essential factor in this respect. What is needed, then, is a new definition of principles that can serve as a basis for the design of a new society that will be more interdependent but also more just.

Similarly, the entire system of relationships between the periphery—the developing world—and the centre—the industrialized countries—must be revised. ECLA has duly attempted to identify the nature of these relationships in order to interpret the problems of Latin Amer-

ican development and seek economic and social policy alternatives. The past situation has now altered fundamentally and we must therefore analyse these relationships in a new economic, political and social context.

It is not my intention on this occasion to make an extensive analysis of the features of the present international situation as it relates to the principal industrial centres. Noting, however, the figures on the growth of the product, industrial production and trade of those countries—which have registered a tremendous boom in the past 10 years—I cannot but call attention at the same time to certain facts of unquestionable importance that are a cause of concern in the Latin American economies. In the first place, there is no doubt about the problems which stem from the international monetary system created at Bretton Woods and which, notwithstanding the progress made in recent weeks, are still only beginning to be solved. Secondly, inflation is already a serious problem in all the industrialized market-economy countries. The disruption which the phenomenon tends to cause in such economies is well known. Even more serious, however, would seem to be the fact that some of the traditional corrective measures that have been applied since the war are difficult to put into effect at the present time because of the peculiar nature of current inflation. Prices are increasing at the same time that the growth rate of economic activity is tending to decline, and countries are facing the difficult choice between inflation and stagnation. Thirdly—and this is the most serious phenomenon of recent times, which has also affected Latin America and is very closely linked with the others—there is a general climate of uncertainty in respect of *international economic relations*, aggravated especially by a certain shortage of basic commodities and, above all, by the problems arising from the petroleum crisis of recent months. This uncertainty has caused sharp erratic or speculative movements that have further increased the pressure on prices by distorting normal trade flows.

The climate of uncertainty has been further aggravated by the trend of financial flows. The new price of petroleum may represent a net additional transfer of resources to the OPEC² countries of around 60,000 million dollars, some 50,000 million of which would come from the industrialized market-economy countries. This new liquidity—and particularly its future distribution—significantly affects the international financial markets and accentuates the gap between the countries providing the funds and those which will receive them through those markets.

The foregoing developments affect the various developed countries in different ways and degrees. Their rates of inflation vary widely from one to the other. Furthermore, there has been an appreciable improvement in the balance of payments of certain countries exporting raw materials and consumer goods whose prices have risen sharply, while other countries that import raw materials and petroleum for domestic consumption face very substantial deficits in their balance of payments and strong pressure on domestic price levels: problems which they endeavour to tackle by means of stringent policies of adjustment which they pursue at the expense of their foreign currency reserves.

Given this state of affairs, the questions which are a source of concern to all those who live in the developing world have to do with the kind of policy alternatives that the developed countries decide to pursue: (a) *What attitude will the industrialized countries have to adopt in the short term regarding anti-inflationary measures?* and (b) *What medium- and long-term policies will they undertake as regards technological research and the allocation of new resources and as regards international economic relations in the light of the energy crisis?*

With regard to inflation, the solutions adopted may be designed to achieve in varying degrees the necessarily combined objectives of price stability and employment. Insofar as the anti-inflationary measures adopted reduce the rate or level of economic activity and employment, the demand for primary and industrial products from the developing countries is bound to be affected accordingly. On the other hand, if the level of economic activity is protected at the expense of price stability, the

developing countries will have to pay increased prices for the manufactured goods they import. Consequently, the ability of the developed countries to adopt policies that combine these objectives adequately and avoid serious detriment to any of them is a matter of truly vital concern to the developing countries.

The industrialized economies have implemented policies with medium- and long-term objectives at both the domestic and external levels. They are allocating large volumes of resources to technological research into new energy resources or substitutes, while externally, with a view to ensuring their supply of raw materials, they have embarked upon new forms of economic association with the petroleum-producing countries under which they offer investment and technology in return for guaranteed supplies.

This search for assured supplies of certain primary commodities may lead to an increase in the prices of such goods and the strengthening of the bargaining position of the developing countries. The recent increase in the prices of primary commodities—and particularly the developments in respect of petroleum—has been a clear demonstration to both the developed and developing countries of the importance of assured supplies. It has helped to some extent to equalize the bargaining strength of both groups of countries and to open up favourable prospects of drawing up new rules on the basis of which a more equitable and stable international economic order may be established. In the developing countries, the need is felt to make use of this bargaining strength, before the present situation undergoes any significant change through the possible relative deterioration of the prices of primary commodities or the allocation of resources to undertake research on these products or to find substitutes for them.

Just as there are important differences in the way recent developments have affected the various developed countries, different situations have likewise arisen in the developing countries. Thus, inequality in the endowment of natural resources and considerable differences in their degree of development and their economic and financial capacity to cope with the recent crises make it necessary to distinguish between countries which were not so long ago treated as a single group. Unity and the co-ordination of policies and positions among these countries is more urgent and important

² OPEC—Organization of Petroleum Exporting Countries.

than ever before, and must be sought in full consciousness of their widely divergent situations. It is therefore in the light of these complex circumstances and the high degree of un-

certainty with respect to the future that the effects of the external economic situation on the countries of Latin America must be viewed.

III. LATIN AMERICA AND THE WORLD SITUATION

The first effects of the international economic situation on the countries of the region during 1973 were blurred by the illusion that the prices of raw materials were booming. As is borne out by a more careful analysis of the figures given in the secretariat's reports, however, in many cases the prices of raw materials have not offset the loss of value caused by the reduced purchasing power of the dollar. Except in a very few cases such as petroleum, they have not reached the real levels of the first five years of the 1950s.

This undue optimism over the higher prices for exports, the possible impact of these higher prices in the form of increased imports, the increase in the prices of these latter as a result of the inflation in the developed countries, which it will be difficult to prevent from causing a rise in the cost of our imports this year and next, and the uncertainty regarding the future prices for our export sales, are all facts which call for a strong sense of caution when planning ahead.

The adjustments in oil prices will mean additional income of about 10,000 million dollars in 1974 for four Latin American countries, but the other 19 countries will suffer an extra burden of around 2,700,000 million. This figure represents a high percentage of the exports and reserves of a considerable number of our countries, and it is matched by an equally significant rise in the prices of imports of food, agricultural inputs (fertilizers), and capital goods and spare parts.

All these factors are having a considerable effect in various ways on the development process, quite apart from their influence on balance-of-payments deficits, which are reaching intolerable proportions in some countries. The pace of investment will suffer as a result, particularly as regards the imported component of investment projects since the increase in the cost of capital goods reduces investment in real terms, and many projects financed with international credit are being held up. Furthermore, there is a scarcity of capital goods caused by the strong international demand induced by the additional investment in energy projects and re-

lated industries, the reconversion of industries, transport, etc. Therefore, all of this will hold up some basic investment.

The rhythm of production of the industrial and agricultural sectors has also been affected by the relative scarcity of raw materials and basic inputs, the effects of which are being felt not only in the volume of production, but also in higher domestic costs and prices. Fertilizers are perhaps the most serious example of this.

The effects of imported inflation have spread to almost all Latin American countries. For those with a tradition of inflation, these pressures have compounded domestic ones, and even for those countries which have had a tradition of stability, the phenomenon is creating serious domestic imbalances with political, economic and social projections with which the psychological climate and the prevailing policies are ill-prepared to cope.

Thus, it can be appreciated that faced with such a state of affairs and the uncertainty of the international situation, concern is increasing as the monetary effects of the international boom in raw materials begin to disappear. The number of unknown quantities is excessive and we are far from being able to make even basic forecasts of trends in international prices or in the terms of trade. In similar cases in the past, periods of sharp fluctuations and erratic movements of both trade and financial flows have been experienced before the right approach has been found for putting international economic relations in order. It is to be hoped that this time the accumulated experience and the common interests highlighted by the interdependence of the nations of the entire world will help to shorten the inevitable period of adjustment.

Meanwhile, I feel that the challenge facing Latin America is threefold: first, the domestic challenge, which concerns the policies to be followed in the short term by each country; secondly, the regional challenge to the capacity of the countries to provide mutual support in the present critical circumstances, and lastly the international challenge, which concerns the

responsibility of the whole region to co-operate in building a new international economic order.

1. *The challenges at the national level*

At this level, the problems naturally vary greatly from country to country. The present international economic situation has brought out the differences between countries as regards their capacity to cope with the immediate future, and the classifications usually followed in past years to group countries on the basis of their relative economic potential will have to be revised using more complex criteria. Endowment with certain natural resources, energy potential, availability of staple foods, greater export capacity and diversity, and attraction of foreign capital are new elements that must be added to the criteria traditionally used to differentiate between one country and another on the basis of geographical size or *per capita* income. Therefore, in its annual *Economic Survey*, the secretariat has made a rough classification preliminarily classifying the countries of the region into three groups: (a) those which have abundant oil resources; (b) those in a good position to cope with their problems because of favourable trends in their economies; and lastly, (c) the remaining countries, which will face serious problems if adequate solutions are not worked out at the regional and world level.

Before making a few remarks on each of these groups of countries, allow me to point out that one cannot ignore the positive aspect of crises like the present ones, since they reveal the weaknesses in our development processes and show the need to revise certain aspects of domestic development strategies. Thus, in all cases the importance of domestic and regional markets is clear. Furthermore, they show up not only the weakness of our industrial development processes, but also the need to support them with programmes for the production of basic inputs or capital goods for regional markets. Lastly, they have brought home to us the potential importance of the natural resources—and in particular the energy resources—of Latin America and force us to make changes in many of the priorities laid down in investment programmes.

For those countries benefiting from the favourable petroleum prices after a number of years of depressed prices, the challenge lies in choosing—in the context of their national development strategies—between present consumption and future investment. The right balance between the two has to be resolved by each country, but this is the appropriate

time to point out that the present economic situation offers all of them the opportunity to use the product of a non-renewable resource to build economies with a higher degree of diversification, based on self-sustaining development processes. In the social context, the present situation will reduce the cost of basic reforms which will enable the benefits of technological progress to be brought to the most backward sectors of society. In any event, future economic and social development will be stimulated. These countries can hardly escape the effect of imported inflationary pressures, but at the same time their capacity to formulate anti-inflationary policies will also be enhanced, for their greatly improved balance-of-payments positions will enable them to adopt more viable economic policies.

In the countries with the biggest room for manoeuvring and particularly in the largest countries of the region, the situation is complex, but they are better able to defend themselves. Not only do they have abundant natural resources, but they have also developed powerful and diversified industrial sectors, they have learnt to export and to diversify their traditional export activities, they have developed a varied group of flexible economic policy instruments, and they have easy access to the money and financial markets of the world. Furthermore, the present exceptional liquidity could provide them with additional resources, although it is usually dangerous to make excessive use of short-term external financial resources to rectify structural disequilibria in the balance of payments. The importance of reviewing the role of the domestic market in the continuing expansion of their economies and the role of regional and sub-regional integration should be kept in mind when reconsidering and reappraising their development strategies. Furthermore, the scarcity of some raw materials and capital goods has produced disequilibria in their development which are leading them to review the priorities in their industrial strategies with a view to entering on a new stage of the process of import substitution with expansion to regional and world markets.

In the countries most affected by the international economic situation, the problem takes the form of a grave state of emergency created by the balance-of-payments situation. This will require the readjustment of their economic policies and even the redefinition of their economic development strategies. The emergency situation deriving from the effect of present

conditions on the balance of payments in a large number of Latin American countries makes it absolutely indispensable to contrive special solutions such as those which are being prepared at the international level. At a time when the entire world is endeavouring to avoid the risks of economic crisis by expanding and avoiding of the troubles which accompany a depression, it would be out of the question to condemn a large number of countries—generally the poorest—to solutions involving economic recession and retrogression.

Many economic policies (especially exchange and fiscal policies) have been affected, and this will call for flexible adaptation to the evolution of international prices if the effects on domestic systems of production are to be minimized. It will certainly be necessary to readjust investment priorities so as to secure a better position in the medium-term through the utilization of the countries' own natural or energy resources.

Whatever the situations of the Latin American countries, the responsibilities of their Governments will be increased by the need for foresight and vigilance as regards external economic events. In circumstances as fluid and changeable as the present ones, it would be very difficult to entrust the handling of the economic situation and the development strategy exclusively to spontaneous market forces. Hence the great challenge which these circumstances pose to plans and policies and to deliberate State action to influence in some form or other the course of external and domestic events.

2. *Challenges at the regional level*

I consider that one of the aspects of the present international economic situation requiring most urgent attention is the strengthening and expansion of the machinery for intra-regional co-operation. The lessons of co-operation have been learned by Latin America over long years of experience, which have preceded by many years the attempts at international co-operation observed at the present time. This co-operation must now cover new areas as well as pressing forward in its present fields. Above all, however, it will be necessary to distinguish clearly between the relative situations of the different countries in order to perfect in consensus the idea of non-equal treatment for non-equal countries. The perfecting of the concept of preference among the countries is absolutely imperative.

The review of the regional integration machinery in progress offers an opportunity for exploring—without prejudice to the trade instruments—more efficient ways of expanding agricultural and industrial output. This is required both for import substitution at the regional level and in order to achieve a more healthy and efficient production structure, capable of competing on international markets. As part of this machinery, or as a complement to it, producers' and sellers' associations should take on new importance and provide Latin America with greater negotiating capacity at the international level.

The situation, however, also invites exploration of other additional and complementary machinery, stimulated at the present time by the existence of countries which are willing to invest part of their balance-of-payments surpluses in promoting initiatives of regional interest. These initiatives would, among other things, enable considerable impetus to be given to the exploitation of Latin American resources, they would stimulate the exploration of the new frontiers of technology, and they would give a strong boost to the national or multinational *entrepreneurs* of Latin America. The measures which the Government of Venezuela has recently been advocating undoubtedly open up a promising and encouraging prospect which could mark a new stage in inter-Latin American relations. Indeed, regional organization for obtaining financial resources on the international markets through financial institutions of the inter-American system, such as the Inter-American Development Bank (IDB), or through other sub-regional institutions constitutes a new field, for joint exploration by our countries.

Thus, the frontiers of regional co-operation have been considerably expanded with the challenges of the present economic situation and the inflow into Latin America of new resources in the hands of countries which are disposed to provide new and effective co-operation for the region's economic and social development. Future stages of the inter-American dialogue recently initiated by the Foreign Ministers of this hemisphere could open up new opportunities for co-operation, especially for the countries which most require it in the present circumstances.

3. *Challenges at the world level*

Beyond any doubt, the main world challenge is the need to reconstruct an international eco-

conomic order which has been adrift since the recent collapse of the monetary system. This was the unanimous desire of all countries, expressed a few months ago at the sixth extraordinary session of the General Assembly.

For most of the third world countries, a disordered international economic situation can become the worst enemy of economic development policy. Generalized inflation and the fluctuations in the prices of raw materials will in the long run cause the costs to be borne by the poorest countries, just as in the case of inflationary phenomena within our own frontiers. Hence, the fullest association with the efforts aimed at preparing new rules for a more international and more stable but also a more just society should receive the enthusiastic support of Latin America. This would be no more than the continuation of the policy of broad internationalism which Latin America has preserved for over a century and which is manifested and demonstrated by the region's behaviour in all the major forums of the post-war world and, most recently, by its decided support for the Mexican initiative to draw up a Charter of Economic Rights and Duties to regulate the conduct and action of all States.

The building of the new order should begin with the maximum improvement of the emergency machinery put into operation to alleviate the difficult situation caused to many countries by their balance-of-payments deficits. The present efforts being made by the Secretary-General at the request of the General Assembly, the initiatives of the International Monetary Fund (IMF) and the unilateral or sub-regional reactions of different Governments are all steps whose effectiveness will be all the greater according to the speed with which they can be instrumented.

But these measures are only a beginning. There are others, as we saw in the Programme of Action on the Establishment of a New International Economic order, recently approved by the General Assembly of the United Nations. Until recently, we were accustomed to think in terms of key problems or starting points for the reordering of international relations. The monetary reform aspired to this in the beginning. It was then followed by the protracted multilateral negotiations within GATT. But none of these areas can be dealt with in isolation without taking into account its interdependence with the other areas. It is also necessary to achieve universal participation in seeking solutions and this means that the social-

ist countries must play the active role which devolves upon them. In the next few months the United Nations will have the responsibility of considering many of these problems. The international conferences on the sea, population, industrialization, the review of the International Development Strategy, the implementation of the Programme of Action, the negotiations on monetary reform and the progress of the multilateral trade negotiations all mark different but connected stages of the greatest significance in the consideration of problems which are of fundamental importance for the new economic order. What is important is that they should all progress simultaneously so that the new rules which are required can be agreed upon. In all this Latin America must play a role which I would have no hesitation in calling essential, because our own problems drive us forward in this matter.

Where the effort should perhaps be greatest, however, is in the area of raw materials. A limiting factor in the Bretton Woods arrangements has been the lack of adequate agreements for organizing trade relations which would ensure stable markets and just remuneration for these materials within the range of international prices as a whole.

This challenge is certainly not easy, but I sincerely believe that the circumstances of the present international economic situation emphasize new realities which will lead to a fruitful dialogue that will facilitate real co-operation. Today, interdependence is clearer than before. It was always clear to the developing countries, but now it is undoubtedly so for the industrialized countries themselves and I believe that it is here that the positive new feature of the present circumstances is to be found. The prosperity of the industrialized countries depends both on the provision of our raw materials and on the expansion of their sales of manufactures, while for the developing world the resources of capital and technology continue to be fundamental factors originating as always largely from the industrialized world. This results in a meeting of interests which could bring about a balance of interests, and there is no reason why this balance should not pave the way for a series of fruitful negotiations from which we would all ultimately benefit.

In conclusion, Latin America and the world as a whole are facing a historic moment of singular importance. This moment is so full of contrasts that to anticipate the future with sim-

plistic extrapolations may not only be illusory but, what is worse, irresponsible. There are, however, grounds for optimism because—and I say this with deep conviction—the world is now facing its problems with a much clearer awareness of the interdependence of nations and a stronger perception than ever before of the ambivalent aspects of technical progress.

Both these elements may help to lay the foundations for a more balanced international society which brings along with it a more just society. I am sure—and this is the greatest stimulus for the ECLA secretariat—that Latin America has a major role to play in this vital task, and we are going to serve our region in this work with true enthusiasm and the utmost devotion.

POPULATION, ENVIRONMENT AND DEVELOPMENT: THE LATIN AMERICAN EXPERIENCE

1. *Development and its components*

Traditionally land, labour and capital have been considered to be the basic factors of production on which the wealth of a nation rested and it was the manipulation of these—seen respectively in broad terms as natural resources (the availability of fertile land, forests, minerals, marine products); people (including skills, inventiveness, creativity and business initiative as well as their propensity to consume and so provide an adequate and growing market); and wealth (aggregate income levels, savings, investment and the stock of capital goods in the economy)—which allowed a nation to “develop” or not. Successful national development was thought of in terms of the aggregate size of national income, income *per capita* (although social and regional distribution were virtually ignored), growth rates and international commercial performance.

In the past 30 years attention has turned successively to certain variables and interrelationships as being crucial to the development process. The roles of population, technology, resources and output are important, not only in themselves but also as a result of their interaction; it is the use that the population makes of resources which affects levels and types of production, which in turn determines the quality and range of consumption by the populace. Moreover the use of resources depends on the society's perception of what constitutes a usable resource and its ability to make its perception operative through the application of technology to the raw materials available. In the past two centuries this process of interaction has been a cumulatively expanding one which in the affluent nations especially has led to increased demand to new techniques for developing natural resources, and to the improvement of transport networks, as the industrially advanced societies widened their search for agricultural land and raw materials to replace exhausted or expensive resources in the already exploited areas. Constant technological advance, too, has led to the discovery of new sources of wealth and has in turn altered methods and types of

production, and created new forms of consumer goods and demand.

The schema “population—technology—resources—output” (with the concomitant consumption) is a useful one in describing the basic structure and functioning of the development process, and the way it has continually expanded in the 200 years since the industrial revolution. But, although the basic techno-economic ingredients are there, more is needed to explain why such a pattern of growth should be taking place and to what extent this particular structure has improved the quality of life for mankind—and more to the point, perhaps, to determine how it has differentially altered the quality of life for distinct sectors of mankind and what disadvantages it has brought in its train.

The development process has, on the whole, been one of cumulative growth, both in terms of technological “know-how” and of the increased sophistication of production and consumption. But the uneven social and spatial spread of the benefits of such growth, together with the deleterious environmental effects of the destruction or wasteful use of natural resources, and the perpetuation on an ever-larger scale of inadequate conditions of human settlement, have raised a number of issues which cannot be answered only—or even primarily—in traditional technical or economic terms. The attempt to explain, why, despite the tremendous technical capacity available to mankind, the principal features of the process of development in the 1970s should still be inequality and imbalance—the division of the world into developed and underdeveloped, nationally, regionally, socially—requires the introduction of variables of a non-economic, non-technical nature.

Social and political factors, and spatial and environmental questions are now increasingly part of the calculus of the development process along with the more traditional variables as social scientists and planners seek an approach which will both allow them to analyse the de-

velopment process on the bases of a wider range of criteria, and to find answers to problems through a broader understanding of the implications of different policy decisions.

Analysis of the sociopolitical variables might help the planner to understand why, for example, economic activity and population are concentrated increasingly in a few large centres; why particular capital-intensive forms of technology are being employed in labour-surplus situations; why luxury goods are being produced or imported when other criteria might suggest that the production of basic goods for a nutritionally deficient and inadequately sheltered and clothed majority of the population would represent a more socially just national investment. The combination of the sociopolitical with techno-economic variables should help the policy-maker or researcher to examine with much greater depth and understanding the working of a society by examining its motivations, its aims and principles.

In this quest for an integrated approach to development policy (which is still generally in the very early stages of its evolution) the spatial and environmental factors have important roles in demonstrating with particular clarity certain consequences of different types of development, in terms of the form and structure of human settlements, relationships between town and country, the spatial distribution of economic activity, and the spatial distribution of consumption of goods and services.

The environmental and spatial components are closely related in that they both provide physical indicators to the policy-makers of the functioning (for good or ill) of the society. The use of the natural environment through the development or despoliation of resources; the creation or not of a humanly acceptable urban or rural environment; or of a "livable" social environment form the practical evidence of the capacity of a society to provide for its citizens, by projecting the results on the ground, as it were, of the operation and interplay of other, less tangible, features of the system.

"Development" then is equivalent to the way in which all the variables of the system—population, technology, resources, production (and consumption), and the social, political, spatial and environmental factors—interact. In turn, development strategies require the selection and reconciliation of these variables and their interrelationships in order to achieve certain goals or principles.

2. *The population factor*

(a) *Growth and size*

Population is the initiating and operating factor (in the development process), the end to which all development is directed, and the element which suffers from maladjustments and contradictions in the functioning of the system.

The other variables stand in a dependent relationship to population constituted into organized societies; resources are a function of the perception of society, and the ability of man to make use of them through the application of technical knowledge, while the type and range of goods produced, together with the location of economic activity and human settlement, will depend in large part on the sort of society constructed to meet the requirements of dominant social groups.

The close links between demographic and environmental questions, too, are immediate and obvious. Man has had an enormous influence in changing the environment throughout history, and especially in the last two centuries, with the rapid expansion of the human species together with its technical capacity for production and destruction. In the past two decades the phenomenon of a fast-growing population, which is making ever-increasing demands on the environment and the stock of available resources to support mankind, has become, from the preoccupation of a handful of specialists, a world-wide obsession.

Latin America, with the highest population growth rate of any major region in the world, is particularly sensitive to the claim that population pressure is one of the major reasons for the sharpening of environmental problems, and different Governments have taken various positions between two extremes—acceptance of the need to reduce rapid growth by specific population policies, and an outright rejection of any suggestion that population expansion should be slowed. (It should also be noted that there are significant differences between policy statements and action at either end of the range of possible policy choices.)

This is not the place for a detailed assessment of the different positions and, it should be added, a discussion in generalized terms about the continent's population is not particularly useful, because of the enormous differences between countries not only in size but also in terms of population densities, rates, distribution and components of growth.

Densities remain low in most countries and this has generated a belief that the region, or at least some nations within it, needs people to populate the vast open spaces and develop and use the great richness and diversity of resources available. Moreover, as Victor Urquidi has pointed out, a population of 650 million in the year 2000, "... places Latin America in a different world situation. There are many in the region who equate population to political power or at any rate to greater influence in world affairs".¹ Nor can the question of frontiers be ignored when one Government sees the rapid growth of population in its neighbour as a potential threat to its own integrity.

Although these may be valid—or at least, understandable—considerations, two other factors must also be taken into account when considering questions of national development. The first is the relationship between population densities and the level of economic development. The argument often put forward that in terms of the density of people per square kilometre, Latin America is comparatively underpopulated, is also fairly meaningless in a continent where geographic and climatic conditions are so variable and large areas are in fact not susceptible to viable occupation—in terms, at least, of present technologies and investment capability—while others are best suited to forms of exploitation (such as forestry or sheep farming) that require very low population densities. Considered in terms of the relationship between people and socioeconomic development—or, more simply, between the numbers to be fed, housed, clothed, employed and supplied with the basic social facilities, and the capacity of most societies under their present economic and social structures to do so—Latin America at the moment has more people than it can provide for.

(b) *The distribution of population*

The second consideration is that the distribution of population is extremely uneven, with large numbers being concentrated in a few large metropolitan areas—usually the capital cities—while at the same time population in the rural areas continues to grow rapidly because of high rates of natural increase. The impact of millions of people concentrated in one or two geographically restricted areas on the environment

¹ Victor Urquidi in "Latin American Demographic Growth: Political, Social and Economic Forces", a paper read at the Population Association of America, New Orleans, 26-28 April 1973, p. 4.

together with the lack of development in the peripheral areas will be considered later.²

Although levels of urbanization vary widely among the different countries—ranging from the highly urbanized societies of Argentina, Uruguay and Chile to the predominantly rural societies of Paraguay, Bolivia and Ecuador in South America and Haiti, Honduras and Guatemala in Central America and the Caribbean—everywhere the levels are rising.

The combination of high over-all population growth rates with a strong tendency for people to migrate—especially, though not exclusively, from the countryside and small towns to the big metropolitan centres—has resulted, in some cases, in growth rates of 6 or 7 per cent annually, that is, doubling of the population in large cities approximately every ten years.³

Two features of this process of hyper-urbanization should be especially mentioned. First, it is much more acute than in the affluent nations where, although there has been a similar centralizing tendency, the trend has not proceeded at such a rate as in Latin America. Here, the capital or major centres, in several cases, account for between one third and one half of the population of the country, and through migration are continuing to attract each year a significant part of the population into their continually expanding boundaries.

The process is not accompanied by rates of industrial and commercial development which would allow the centre to absorb the flood of people from the periphery. The migrants as well as large parts of the population born in the cities have extreme difficulty in finding productive work which will provide them with the means to satisfy their basic social and physical needs

² According to the Office of Science and Technology, AID., their survey of 35 countries in the underdeveloped world, "... revealed a close inverse relationship ... between human population pressure and urbanization on the one hand, and the quality of the environment on the other". "Environmental Problems in Selected Developing Countries: Preliminary Survey", Washington, July 1971, p. 8 (mimeo).

³ For example, in Brazil the average annual growth of cities of more than 500,000 reached 6.2 per cent in the decade 1940-1950; 7.2 per cent 1950-1960; and 6.8 per cent 1960-1970 compared with percentage rates for all urban areas of 5.3; 6.4; and 6.1 respectively. See George Martine and César Peláez, "Urbanization Trends in Brazil, 1940-1970", ECLA. Document presented in Rio de Janeiro, Brazil, 3-7 April 1972, p. 15. A gradual long-term decline in metropolitan dominance may be under way but, if this is real, the trend will take a long time to work itself out because of the large increases in absolute numbers.

for food, housing, health and education services in the big city centre.⁴ In Latin America as a whole the types of secondary sector activity characteristic of the affluent nations in the early phases of their industrial expansion have been less dynamic in growth in incomes and employment and the tertiary sector has become more dominant. Neither the over-simplified claim that urbanization inevitably brings in its train social and economic advancement for the population, nor the contrary argument that the expansion of large and rapidly growing cities must lead to great social problems without sufficiently compensating economic advantages, can be accepted *in toto*.⁵ In fact, the situation is complex, with important groups—composed mainly of the middle class and the unionized workers—able to take advantage of the possibilities that the city offers for wider employment opportunities and social mobility. At the same time, the more marginal groups still find themselves socially and economically restricted in a setting which is apparently more advantageous and dynamic. In such a situation the contradictions may become more obvious and the social paradoxes be brought out in the open as consciousness of disparities grows and expectations rise. This can, in turn, lead to demands for the improvement of immediate problems and the resolution—however transient and partial—of the most pressing grievances.

The greatest impact of the cities may lie, therefore, in the contradiction between the objective conditions of limited socioeconomic mobility and sharpened awareness of inequalities in the system. Such contradictions, depending on the flexibility of the authorities, and the resources at their disposal, will probably become more pronounced as the concentration of population continues and as migrants pour into the unplanned urban agglomerations of the continent, filling the central slum areas and contributing to the rapid growth of the “barrios marginales” the “fugurios”, the “callampas” or the “favelas” that encircle the cities and account for perhaps a third of Latin America’s urban population.

⁴ Despite the fact that, as in Bolivia, 60 per cent of the nation’s industry and 55 per cent of the industrial work force may be concentrated in the capital. See “Informe Nacional de Bolivia sobre ‘El Medio Humano’”, Ministerio de Relaciones Exteriores y Culto de Bolivia, Comisión Interministerial Permanente, La Paz, March 1971, p. 4.

⁵ See Pierre de Briey, “L’urbanisation, le développement et le processus révolutionnaire dans le Tiers Monde”, *Civilisations*, vol. XVIII, No. 3, 1968, pp. 342-352, in which both sides of the argument are set out in summary form.

(c) *Population and other development variables*

As was stated above, the role of “population” in the development process can be analysed effectively only in terms of its relationships with the other variables, technology, resources, output, and the spatial dimension (the population—environment relationship will be considered separately later). The way that population interrelates with other variables will depend in large measure on the structure and functioning of the society, on its institutions, the political system, and the relative influence of different social groups. Attitudes, values and norms of political, economic, social and cultural behaviour will help to determine how, for example, resources are used; which types of technology are employed; what ranges of products are provided for consumers; and how economic activity and human settlement are distributed spatially throughout the society.

In Latin America one can see how the different variables interact in shifting and complicated patterns within the context of the dependent market economies of the continent. The choice of technology to exploit the enormous natural resources, the distribution of returns from such exploitation among different social groups—measured in terms of consumption, of the distribution of incomes and of employment opportunities—reflect in large measure the interplay of the two sociopolitical factors, dependence on the world centres and the market system. The spatial variable too, manifests the way these factors interact with the population variable, to create certain patterns of human settlement and location of economic activity.

The functioning of market economies has not noticeably led to equality among social groups at any stage of their historical evolution. In the affluent nations although the whole income pyramid has been raised, the gradual increase in aggregate national product has resulted, in most cases, in little narrowing of the economic, social or political gaps between the highest and lowest income groups. Even under the welfare state, certain minorities enjoy the choice of the better forms of employment, social services, and cultural amenities, and exercise a predominant influence in political affairs.

These traits take more extreme form in most countries of Latin America. Income distribution is, throughout the continent, extremely uneven; employment opportunities for the majority of the population are restricted to manual

work or unproductive and often demeaning occupations on the margins of the service sector; housing, food, clothing, health services, education, and social facilities are not shared equitably; access to justice and effective participation in decision making of a political and administrative nature depend on one's position in society.

Equally, decisions relating to the types of goods produced and the levels of production reflect the consumption requirements of the wealthier social groups so that, at the same time many basic commodities are not available at acceptable prices for the majority of the population, industries are producing goods for the upper income groups at prices indicative of the oligopolistic structure of the protected industrial sector.

In their methods of production the owners and managers of enterprise in whatever sector are naturally more concerned with maximizing returns—or with internalizing profits and externalizing costs as it has been more precisely stated—than with maximizing social welfare conceived of in terms of the society at large. The consequences of these attitudes in environmental terms will be considered later.

Centre-periphery patterns of human settlement and development/underdevelopment are typical of the unbalanced nature of the region's evolution. There are several reasons for this.

First, as many writers on regional development from Myrdal, Hirschman and Perroux, to authors such as Coraggio and Rofman commenting specifically on the Latin American situation have pointed out, there is a natural tendency in market economies—though not only there—towards the gradual centralization of economic activity within a limited number of favourably located urban areas. The operation of external urbanization and other economies of scale makes it imperative that to optimize profits firms should locate close to major markets, with access to all types of services and enjoying lower transport costs. The increasingly concentrated location of such economic activity attracts further population—the generally passive element in the process—and so the cumulative pattern described by Myrdal continues in motion.

The effects are not only felt in the economic sphere however. The favoured centre also attracts to it the social, political and cultural life of the nation, leaving the smaller towns and the rural peripheries increasingly drained of

these assets and ever more dependent on the capital. Not only the relatively well off groups which seek the wider range of social, political and cultural opportunities of the city, but also the lower middle-class, the organized labour force and the groups at the margin of society hope to participate more effectively in decision-making and distribution of the fruits of development in the capital than in the smaller urban centres of the rural areas. The mere presence of the shantytowns on the outskirts of the city is a constant reminder to Governments of whatever kind, of the needs of a rapidly growing population. Such a presence becomes even more obvious when the marginal groups—in conjunction with organized labour or not—are mobilized socially and politically to make their claims more effectively heard for housing, employment, education, health facilities, etc.

It seems unlikely that, without considerable changes in policy, these cumulative tendencies towards an increasingly polarized centre-periphery pattern will be reversed in the short- or even medium-term. The creation of ministries of regional planning, the formation of research centres and the continued preaching of international bodies on the need to bring about a more dispersed distribution of population, economic activity, social facilities and political influence have only a superficial impact. The trends towards centralization and the concentration of human settlement in a few favoured locations undergo some modification through the growth and evolution of the market system itself but the internal problems of social, economic and political inequality on the one hand, and their spatial equivalents on the other, have in themselves created difficulties for most Latin American Governments. In addition, however, they have to confront the problems raised by their dependence on world centres whose economic and political power can effectively curb the ability of Governments to deal with the factors underlying spatial concentration among other shortcomings of their development processes.

Solon Barraclough has written that:

“The sovereignty of the state is seriously compromised when it comes to the important decisions affecting national, social and economic structure. Latin American nation-states are an integral part of an international political and economic structure . . . The international concentration of economic and political power has proceeded so far that

when it comes to the decisions that really count for national development the 'independent' but underdeveloped nation often finds its areas of decision circumscribed. Its 'sovereign power' is in some respects a formalism".⁶

The consequences of direct foreign investment in the Latin American region have been noted elsewhere. In an earlier ECLA document, attention was drawn to the complex and widespread ramifications that emanate from such investment. These include the conflict between the entry of foreign currency and the need to service and repay the investment; the increased need for imported components; intensified pressure on the balance of payments; the diminution of local savings and credit resources available for domestic investments; the impact of new types of foreign investment on domestic consumption patterns; the possible incompatibility of this method of resource allocation with patterns aiming to meet basic necessities of the majority of the population; and finally the fact that foreign investment has reduced the effectiveness of customs and exchange measures designed to limit the consumption of expensive consumer durables. The document goes on to mention the often negative impacts on domestic technological development, on the balance of payments, and on the terms of trade of the receiving country, and notes the tendency towards increasing external indebtedness.⁷

Most Governments have accepted the need to pay a price in terms of the diminished capacity for decision making over the type of production undertaken; the kind of consumption patterns created; the location of economic activity (most foreign firms for obvious economic reasons prefer to establish in the larger urban centres); the contribution of industries to employment creation; and the effects on the natural and man-made environment, while seeking means to reduce the price and exercise control over some of these factors. When, for example, some of the industrialized countries express interest in transferring certain types of heavy industry elsewhere so as to limit pollution

in their own territories, the Governments of poorer countries are generally willing to pay the price of increased pollution so as to attract these income-earning activities.

Moreover, it is now well-known that the emergence of the transnational corporation has restricted even further the manoeuvring space and bargaining capacity of even the largest nations in the continent. Greater emphasis is placed on the use of "sophisticated" techniques in the "modernized" sectors of the economy, however irrelevant or socially disruptive such practices might be in the wider setting of the national society. And concurrently with these financial and technical pressures, the cultural dependence of those groups with high purchasing power ensures a continuing though restricted market for most lines of foreign-styled consumer goods.

The complexity of the total development/underdevelopment process can be seen even in an examination of the interaction of two variables, population-in-society (that is, population in its societal setting together with its spatial manifestation) and resource use.

On the whole, natural resources in the peripheral areas of the Latin American countries tend to be inadequately employed; either underutilized or wastefully exploited. With a few significant exceptions (which will be discussed in more detail shortly) farmland has been concentrated into large privately owned and only partially worked holdings or has been subdivided into tiny parcels almost incapable of supporting satisfactory standards of living. In both cases the level of farm management has been extremely low. Forests, a great potential source of domestic wealth and export-earning capacity, are wont to be ignored, treated as a barrier to economic "development" and burnt; or if utilized, are exploited carelessly for short term profit, and not replaced.

Mineral wealth too has been subject to wasteful exploitation for quick returns to such an extent that the enormous wealth of the continent—petroleum, copper, bauxite, tin, iron-ore, silver—has, under conditions of dependence, contributed much less than its potential to Latin American development throughout history. Marine resources which were ignored in most countries until fairly recent years have increasingly been subjected to the operations of large-scale commercialized (and often foreign) fishing fleets which have brought virtually all fishing grounds within range of their "vacuum cleaning" operations.

⁶ See "Rural Development Strategy and Colonization", FAO/UNDP, presented at the Latin American Seminar on Agrarian Reform and Colonization, organized by FAO with the co-operation of the Government of Peru (Chiclayo, Peru, 29 November-5 December 1971), p. 3.

⁷ See *Economic Survey of Latin America, 1971* (United Nations publication, Sales No. 73.II.G.1) Part One, "Latin America and the World Economy: Prospects and Trends", pp. 25-30.

Whether Latin America's natural resources have been ignored or underutilized, or, as is the case increasingly in recent decades, subjected to wasteful and predatory exploitation, the combination of the societal and spatial elements has been the important determining factor. Short-term profits, distance from markets, shortage of transportation and communications facilities and indifference or lack of capacity for control on the part of central authorities are all elements in the type of resource use experienced in the continent.

It is also worth noting that, as a logical consequence, when farming, forestry, mineral and marine resources are exploited in the peripheral areas, the benefits are rarely enjoyed in the area of their extraction. Usually, and in accord with the logic of the dependent market system, further processing, which yields much more income, takes place either in the central region of the country, or in the international centre—the industrialized nation from which the foreign enterprise is operating.

The impact on population of this pattern of growth without development is obvious. Stagnation and neglect in the agricultural sector, combined with the *latifundio/minifundio* structure of land-ownership has stunted opportunities for employment in the face of pressures created by the continued high rates of population growth in the rural areas. The position has become even more acute with the transference of profits to the cities to seek richer fields of investment in property speculation, construction, and the consumer goods industries. And this has contributed to drain the capacity of the rural economy to absorb or to provide a tolerable livelihood for the population remaining on the land. The failure in those cases to develop a diversified economy has led to a restriction of employment possibilities and so to high levels of unemployment and underemployment not only in farming but also in the economic activity of small market towns.

However, even where the agricultural sector has experienced rapid growth, highly capitalized and mechanized methods have meant that, as in the industrialized nations, *entrepreneurs* have been able to dispense with a large proportion of the present labour which had earlier worked the land under different technical and social circumstances. In this sense the push factors in the rural areas have, whether under conditions of stagnation or of expansion, been as important as the pull factors exerted by the supposed attractions of the city. Equally, in the

manufacturing sector, even when attempts are made to decentralize economic activity, and some large-scale enterprises are sufficiently independent and footloose to have moved to peripheral locations,⁸ the highly capital-intensive operations of such firms have little impact on the area of relocation except perhaps in terms of polluting the immediate countryside. Similarly, when exploitation of mineral deposits or forests is expanded and modernized, the employment of highly-mechanized and capital-intensive methods may produce a net drop in employment.

The relative underdevelopment of the peripheral areas is closely related to the hypertrophied growth in the metropolitan centres. Because of the lack of opportunities for investment in diversified development in rural and small town regions—the occasional large-scale projects which do take place involve considerable quantities of labour and capital only in the construction phase—capital is transferred to the urban areas where the opportunities are more widening and the returns on investment much higher.

Although conclusive evidence is lacking, it is probable that the peripheries of most Latin American nations have, over a long period, subsidized the growth of the urban centres, and especially of the metropolis; the canalization of investment finance privately and by public institutions has promoted the industrial development of the cities, but even more has provided the funds for the growth of the urban infrastructure and for the highly profitable real estate development of certain areas of the capitals. It is only in recent years that a number of central governments has begun to reverse the flow through regional development policies aiming to promote agricultural development, the decentralization of industrial activity, and rural public works schemes. Here again, however, it is difficult to estimate the extent of such financial movements, or, for that matter, the extent to which the profits from such investment return more or less promptly to the source.

3. Population and environment

(a) Interrelations of the variables

The main concern in the following pages is to examine the interaction of population and

⁸ A. B. Rofman, "El Fenómeno de la Concentración y Centralización Espacial en América Latina: Elementos para una Discusión", presented at the International Seminar on Regional and Urban Planning in Latin America, ILPES/ILDIS, Viña del Mar, Chile, 17-22 April 1972.

environment within the framework of the socio-political conditions outlined in the earlier sections. This does not discount the fact that there are many variations of the dependent market system in Latin America with more or less State intervention being one of the principal features of such variations. For the majority of Latin America's population, forced to migrate into the crowded and rapidly growing cities, packed on to hillsides, or dispersed over marginal lands, "impact on the environment" is a largely involuntary one—and one which reacts on it directly. Rapid demographic growth rates, decried as one of the major causes of environmental deterioration, together with an unbalanced distribution of that population, are only the final and most obvious causative factors of environmental problems.

(b) *Environmental problems—some examples*

The evidence of despoliation and disruption of both the natural and man-made environments is widespread throughout the continent and the impact of such human activity has been clearly documented in numerous cases.⁹

In the agricultural sector¹⁰ for example, inadequate farming practices, associated with prevailing systems of land tenure and the response of landowners to prevailing social and economic incentives have led to neglect of millions of hectares of good agricultural land and abandonment of marginal areas. Overgrazing has ruined natural pasture land and has led to consequent wind or water erosion; slash and burn techniques for land clearance have deforested large areas; and in zones of commercial forestry, attempts to replant the cutover areas are rare. Again the results can be seen in the widescale erosion, the permanent

⁹ See especially "República de Chile: Informe para la Conferencia de Naciones Unidas sobre el Medio Ambiente Humano", Santiago, Chile, May 1971, p. 877. Much of what is stated in "Informe Nacional: República Argentina", Conferencia de Naciones Unidas sobre el Medio Ambiente Humano, (mimeo). n.d., is also a commentary on the physical depredation to the Argentinian countryside of inadequate and destructive practices which continue to the present. It should be added, however, that no systematic balance-sheet, based on adequate research and clear definitions of problems, covering Latin America as a whole, has been drawn up as yet. General discussions (including the present text) thus fall back on "examples" culled from different sources, of widely varying importance and verifiability.

¹⁰ A wide range of examples of types of environmental deterioration are given in "Environmental Costs and Priorities; A Study at Different Locations and Stages of Development", Panel of Experts on Development and Environment, Geneva, 4-12 June 1971, p. 6 et seq.

denuding of hill country, the consequent silting up of rivers, and the creation of conditions leading to recurrent flooding over large areas.

The results of such bad management are apparent in Chile where 20 million hectares or 80 per cent of the nation's agricultural usable land is eroded to some extent, and the rate of erosion continues at 40,000 hectares a year. The consequent silting up of rivers and ports has put various types of industrial activity in danger, reduced the value of dams, caused loss of life together with ruining large areas of good agricultural land.¹¹

In Argentina, too, overgrazing of the pampas has destroyed thousands of hectares of pastureland as well as in the Chaco and Patagonian regions. The resulting erosion has affected 20 million hectares of which 20 per cent is considered to be severe. Population pressure in rural areas of Mexico has caused problems of an even greater scale, with 150 million hectares eroded and from 150 to 200 thousand more seriously affected each year.

In other countries too, rural population pressure has destroyed hillsides and other marginal lands as *minifundistas* apply primitive, intensive methods on land cleared of forest and unsuitable for such farming. The position is most severe in lateritic soils and in tropical countries such as El Salvador where the spread of subsistence agriculture has occurred at the expense of deciduous forests. Increased population densities have forced the *minifundistas* to change from shifting to permanent working of the land, while fallow has been decreased to three to five years with consequent widespread soil destruction and erosion. The wider effects of this are seen in, for example, the case of the dam "Cinco de Noviembre" on the Lempa River which, it is estimated, will lose 40 per cent of its storage capacity in the next 20 years as a result of erosion-created silting. Moreover vegetation removal has increased the soil temperature and has altered or destroyed animal habitats, so that 19 species of mammals have been exterminated in the country.

This type of problem derives in large part from the inequitable land tenure system combined with rapid population growth and disastrously inadequate or inappropriate land management. But even the use of new "super" techniques and modern farming methods can have unforeseen and undesirable secondary effects.

¹¹ See "República de Chile: Informe . . .", op cit., p. 9.

The disasters that can result from ill-planned expansion of irrigation (salinization of soils or spread of schistosomiasis), indiscriminate use of chemical fertilizers (clogging of water courses) and over-application of pesticides (destruction of natural predators which help to keep the ecological balance) are now well-known throughout the world, and Latin America is not exempt. Heavy agricultural mechanization can have a destructive impact on forest ecosystems as has happened in the Mato Grosso of Brazil.¹²

In other words, the application of land use methods which aim for quick, short-run results whether for sheer exploitation or for apparently more "virtuous" development goals have led to the deterioration of the natural ecology of many agricultural and forestry areas.

The forests of Latin America have been among the heaviest sufferers from methods of "development" employed over the centuries. In Brazil, states such as Minas Gerais and São Paulo now have less than 10 per cent of their area in forest, with much of the denuded area being exposed to erosion. Moreover it has been estimated that 300,000 tons of timber are lost each year through wasteful cutting methods. The failure to replace timber lost through cutting, fire or disease also demonstrates an exploitative short-term approach and it is probable that Chile loses 50,000 hectares of forest a year this way.

The above are the most obvious examples of the deterioration that has occurred in the natural environment of the continent, but there are others, less conspicuous but unfortunate, such as the extinction of 70 per cent of Brazil's fauna in the large areas of cutover forest—with 44 animals on the list of endangered species; the threat to other species caused by the opening of roads in Colombia which upsets the natural ecology of adjacent areas and allows access to hunters of the jaguar and tapir; or the sheer overexploitation of certain fish species such as the yellow fin tuna, the Peruvian bonito and the shrimp, hake and anchoveta species of the Caribbean. Mining too, has contributed its share of depredation and pollution through poisoning of adjacent land, pit and strip induced erosion, and river and coastal contamination.

In the man-made environment—in human settlements generally, but especially in the physical structures of large and densely popu-

lated metropolitan centres—the impact of unbalanced growth and population pressure has also been felt, at times severely.

The pollution of air, land and water in cities such as Santiago, Lima, Buenos Aires, São Paulo and Mexico City particularly, but in many other centres where population and/or industry are concentrated, has proved at times to be almost as intense as the worst experienced in the industrialized nations. For example, in Santiago de Chile the sulphur anhydride and dust content of the air in the city during the winter is higher than the internationally accepted levels. Car exhaust pollution, too, at times passes these permitted limits despite the low *per capita* levels of ownership.¹³ And an estimated 65 tons of dust per square kilometre fell on the city in 1969. Other cities share such problems; sulphur anhydride, suspended and unsuspended dust affect variously most of the continent's great conurbations.

Domestic heating and private rubbish burning are responsible for a certain portion of the air pollution, but the worst contamination is caused by industry and the motor vehicle. In São Paulo 18 tons of sulphur compounds are discharged daily in the Capuava area, while the population of São Caetano do Sul is exposed to pollution by sulphuric acid and calcium carbide, from oil refineries and iron foundries. Small centres, such as La Oroya in Peru with 35,000 inhabitants, also suffer from the emission of sulphur, lead and arsenic gases of a metallurgical factory in the locality, while potato crops, olive trees and other fruits in certain Peruvian rural valleys have been destroyed by atmospheric sulphur dioxide.

It is in the large cities, however, where motor traffic, and in particular the private car, have had the most deleterious effects. And the impact is worsened when combined with special climatological conditions as in Mexico City, Caracas and Santiago. The air pollution of Mexico City, for example, is to a considerable degree caused by the automobile. During 1968, the 40 per cent of the nation's 1.6 million cars which are concentrated in the capital discharged into the atmosphere of the valley 4,884 kilos of hydrocarbons and 24,077 kilos of particles each day. But similar problems are caused especially in the narrow, crowded streets of virtually all the city centres where layout was planned in colonial times for totally different usages. The centre of Lima which has to cope

¹² See "Environmental Costs and Priorities", *op. cit.*, p. 9 et seq.

¹³ See "*República de Chile: Informe . . .*", *op. cit.*, p. 18.

with 300,000 vehicles in circulation is one of the most extreme examples of this problem.

Similarly the contamination of rivers and of water systems has followed from the lack of balanced development in the continent. The cities provide the most obvious examples of contamination of water courses of whatever size—the Río de la Plata of Buenos Aires, the Mapocho in Santiago, Lima's Rimac, the Bogotá, and Guanabara Bay in Rio—all serving as receptacles for sewage and other kinds of waste. Outside the big centres, however, industrial complexes have caused pollution in smaller cities such as Chimbote in Peru where, before the 1970 earthquake, a steel mill and fish meal plants had totally contaminated the bay nearby. And in a continent where only about 10 per cent of sewage is treated, it can be expected that any human settlement will contribute to the problems of water pollution.

It has been implicit in the above description of the depredation of the natural environment and the contamination of the man-made, that an interaction is occurring between environment (as the passive, receiving element) and population (as the active element) within a certain systemic framework. This is too simplistic a statement of the situation, however. Within the population variable some sectors are more active, others less so depending on their social and political position within society.

Without going into detail, it is obvious that everyone contributes more or less equally to some forms of pollution. But in a wide range of some of the worst forms of environmental destruction and pollution it will be equally obvious that certain groups are more culpable than others. On the one hand, many of the problems caused by the *minifundistas* working on marginal lands can be traced back beyond the immediate cause—the peasant—to a system of landholding which reserves the best lands to wealthy landowners who may or may not work them efficiently. The peasant then has the choice either of trying to cultivate the almost unworkable margins, or of contributing to different forms of environmental disruption by joining migrant movements to colonize virgin lands or to find himself a living in the urban areas.

But it must be recognized that the peasant, the marginalized *poblador*, the unionized worker, or even much of the middle class are not responsible for the large scale destruction or contamination which is caused by mining operations, industries and the motor vehicle.

There is an element of social injustice in this as well. Generally the groups directly or indirectly responsible for the pollution are those which suffer it least. Much of the industrial pollution for example is caused by factories producing consumer durables for conspicuous consumption but it is the lower income groups working there and living in the industrial areas—not the wealthy and politically influential living well away from such districts—which have to breathe the fumes and use the polluted water. Similarly, the privately-owned automobile which is responsible for a large part of the urban smog usually causes the most severe problems in the city centres and away from the wealthier suburbs. And this has the added side effects that the car-using minority groups, who also generally have a larger say in decision-making, are not under pressure to improve public transport services which are generally dirty, noisy and inefficient.

Such a situation could account in part for the lack of adequate action against, air, land and water pollution, against congestion, and noise caused by industry and the private car, all problems created by affluence and a form of development copied from the industrialized world.¹⁴

(c) *Environmental problems and their social consequences*

One of the basic premises of this discussion has been that there is a constant interaction among the different variables making up the development/underdevelopment process. And this remains valid for the population environment nexus. We have so far looked at one facet of the relationships, the impact of the population (in society) on environment. But—expressing this relationship between population and environment by the symbols P and E—it can be argued that the link is more than

¹⁴ In "Environmental Problems of Urban Development", E. Novaes, E. Neira and J. Van Fleet, Inter-American Development Bank, Washington, June 1971, pp. 12-13 (mimeo), the authors, commenting on transport problems, note that "... the problems seem to be inevitably determined by a consumption pattern that results more from the presence of demonstration effects than from the real acquisitive power of the population". In addition, private automobile ownership has adverse effects on public transport systems; "under such circumstances urban transport today presents severe congestion problems and contributes extensively to air pollution". However, the authors see little chance of resolving the contradictions between a national growth dependent on the development of the automobile industry and the problems thus created by the urban environment.

just $P \rightarrow E$; it is more realistically stated as $P \rightarrow E \rightarrow P$ or $P \rightleftharpoons E$ in which the population factor—acting through society, and using its technological instruments on available resources to achieve particular patterns of output to satisfy culturally determined styles of consumption for distinct social groups—makes certain impressions on the natural and man-created environment. But, in turn, any changes in the natural or man-made environment will react on the population, so that a return social impact from E to P occurs.

In the rural areas the impact has shaken up most groups. The effects of population pressure, unequal land distribution, environmental disruption and of “modernization” have been widespread and varied. Few rural settlements or even small centres enjoy even the most rudimentary facilities for their inhabitants while outside such human settlements, the highly dispersed nature of much of Latin America’s rural occupation¹⁵ results in primitive material conditions of life.

Basic necessities such as adequate housing, potable water, electricity, education and health services are scarce¹⁶—for example in 1970 potable water supplies reached only 24 per cent of Latin America’s rural population, and only about 3 or 4 per cent of the rural populations of Haiti, Bolivia and Brazil; and, although such figures tend to be somewhat arbitrary, over 80 per cent of rural dwellings in Guatemala, Nicaragua and Honduras are estimated to be “deficient”.

Apart from the obvious human suffering, such conditions lead to a general debility among the population, further weakening their ability to produce sufficient for themselves or for the rapidly expanding urban areas. The most immediate and evident result has been

¹⁵ See for example the case of Panama where the rural population is either dispersed or “. . . agrupada en pequeñísimos caseríos sin ningún plano propio instalados por lo general en áreas poco aptas para la agricultura, de topografía accidentada, y alejados de las principales vías de comunicación”, in *Atlas de Geografía Médica*, Dra. L. Herrera, Ministerio de Salud, República de Panamá, 1970.

¹⁶ “Si el 65 por ciento de la población total del país es la que vive en el medio rural ubicado en pequeñas localidades que caracterizan a ésta como una población eminentemente dispersa, la misma que carece de los servicios básicos como son: de salud, educación vivienda, agua potable, alcantarillado, transporte, etc., surge de por sí que las condiciones del medio ambiente son deficientes . . .”, “Breve Consideración sobre la Problemática del Medio Ambiente Humano: Caso Ecuatoriano”, Junta Nacional de Planificación, Quito, Ecuador, n.d., p. 9.

the outmigration especially of the younger and more dynamic elements in the population, leaving behind in general the older, more conservative and less educated “leftover” groups, often without satisfactory means of economic support, without acceptable social facilities, and—although the situation is beginning to change—for the most part still lacking sufficient knowledge and political influence to express their needs and their discontent effectively.¹⁷

The situation is a fluid one, and a number of writers have claimed with considerable conviction that the intensified relations between town and country will be the means to the awakening of the latter. But a number of questions still must be asked before any definite statement can be essayed. For example, in the economic sphere, to what extent has the infiltration of new ideas led to changes in production techniques, to an improvement in land use and productivity? Or, a more complex social issue, have new values created by the closer urban-rural links altered the relationships between the *campesino* and his *patrón*? Do the less privileged social classes exercise more or less political leverage than in the days when the periphery was more isolated? If they do, what is the nature of such leverage at local and regional levels? Is there a move towards greater participation? Or have there merely been changes from one source of authority to others, from the old *patrón* to the “*hombre-nexo*” who acts as the link-man between the urban decision-making centre and market, and the countryside?

Some answers can at least be suggested. The migration flow to the cities has not yet resolved the agricultural crisis that afflicts most Latin American countries.¹⁸ In spite of the large scale movements of people to the urban areas, rural population continues to expand at a rate of about 1.5 per cent annually throughout the region, and rises to over 2 per cent in some of the smaller, less urbanized countries. This, however, should not obscure a situation in which some frontier regions are being colonized rapidly and population is growing as a result of migration, while older areas of rural

¹⁷ See “*Problemas de Población y Desarrollo en América Latina*”, ST/ECLA/Conf.46/L.1, Grupo de Expertos sobre el Programa de Población de la CEPAL, Santiago de Chile, 11 al 14 de diciembre de 1972, p. 33 ff. which examines the arguments over the effects of migration on local communities.

¹⁸ Denis Lamber, in an article published in *Civilisations*, vol. XV, No. 4, 1965, p. 484, argues that in Latin America, the drift from the land entails almost inevitably a lowering of agricultural productivity.

settlements are stagnating, or, in providing the new dynamic areas with agricultural labour, are actually losing population.

Nevertheless, with the penetration of the mass communication media into the most remote areas, and with the constant to and fro migratory movements between rural and urban areas, the great majority of those living in peripheral areas are inevitably brought into contact with new ideas, values and styles of living.

Moreover, the affects of these cultural influences are reinforced by a series of other factors, including for example: the appearance of new consumer goods in the rural areas and small towns of the periphery which, because they cannot be produced there, increase dependence on the national market; the increasing influence of national political movements emanating largely in the cities and which conflict with local traditional forms of leadership; the initiation of policies of agrarian reform which bring agricultural experts, public servants and politicians out from the cities to train, educate and try to incorporate local communities more into the mainstream of national life; and the opening up of peripheral and once remote communities by roads and public transport services which, however inadequate or decrepit, not only bring new forms of living or new types of land use (for example, for recreational purposes), but also allow people in erstwhile isolated communities to travel and communicate with much more facility.¹⁹

"Modernization" of the countryside and small towns is thus introducing powerful new forces into once traditional and scarcely changing areas, making communities aware of different styles of life, and arousing new needs and expectations. As in the urban areas such tendencies lead to a paradoxical situation in which the contradiction between the cultural demonstration effects and what is economically achievable by the majority of the people are brought more and more out into the open. Up to a point, migration — especially of the younger, more dynamic and qualified groups — may relieve the problem by transferring it to the urban centres, but with the continued growth of the rural population together with

the constant problem of finding adequate employment the situation remains unstable.

The return social effects of environmental disruption and degradation are even more striking in the urban areas, if only because the problems are so much more concentrated and visibly apparent in the marginal *barriadas* which ring the urban centres of the continent and account for a considerable proportion of the urban population.

Such conditions are often associated with rapid national population growth. But that this is only one factor is illustrated by the situation of Argentina where low rates of population growth have not allowed Buenos Aires to escape the problems associated with an increasingly unbalanced distribution of that population. The very size of Greater Buenos Aires, with more than a third of the nation's population:

"... constituye una realidad económica y social cuyos costos son difíciles de mitigar. Por un lado, las distancias entre la vivienda y el empleo ocasionan un considerable desperdicio de tiempo en desplazamientos; por otro, la rapidez del proceso de urbanización producido entre 1947 y 1960, y la ausencia de una acción sostenida en materia de construcción de viviendas, generaron un hábitat rudimentario . . .

"Un estado de déficit crónico se ha vuelto característico. Gran parte de los habitantes metropolitanos se ven constreñidos a habituarse a interrupciones en la provisión de agua, al aislamiento por falta de líneas telefónicas, a desgastarse en interminables viajes diarios y recrearse en las riberas contaminadas.

"Finalmente, la desordenada apropiación del espacio urbano, y la imposibilidad de atender simultáneamente todas las necesidades, han acrecentado de tal modo las urgencias en el dominio de los equipamientos colectivos que la generalización de los 'deficits' parecería constituir hoy otro rasgo característico de la vida metropolitana."²⁰

Large urban centres, in particular, are subject to the heavy strains of demands generated by the concentration of population, and economic, social and other activity in the metropolis. Land is intensively used for multistorey buildings and densely packed commerce, industry and government administration. (AI-

¹⁹ See for example, *El Cambio Social y la Política de Desarrollo Social en América Latina*, CEPAL, Naciones Unidas, Nueva York, E/CN.12/826/Rev.1, 1969, Sales No. S.70.II.G.3, pp. 107-116.

²⁰ "Informe Nacional: República Argentina", op. cit., p. 5.

though much of the use, because of specialization of activity and inadequate city planning, is intensive for certain limited hours only.) Water supplies, too, come under heavy pressure for the multiple (and often wasteful) uses demanded of them, as do other physical resources, including the city's air. Heavy demand for all these have raised costs of utilization²¹ and have caused major problems of physical decay and deterioration in the big urban areas.

But such physical amenity problems imply an environmental deprivation deeper and more complex. The impact of pollution, congestion, noise, and the lack of privacy is also likely to affect the inhabitants of the city in a wider sense by limiting their capacity to develop their full potential in work and to enjoy their leisure. Cramped and noisy conditions will subject many of them to nervous tensions and stresses which affect them individually, and in their familial and community relations.²²

Yet it is not easy to generalize when discussing the social, economic and cultural implications of the type of physical development now taking place in the hyperurbanized centres of Latin America. Studies made of the groups moving to the cities and settling there in central city slums or in the shantytowns that ring the urban areas suggest that no facile conclusions can be made about them socially or politically. It is still not clear to what extent migrant groups are capable, under differing circumstances, of adjusting to the distinct situations posed by city life, of participating actively in the wider society, of finding employment, or of forging new family and community ties.

The more fortunate middle class groups find employment in the service sector, swelling the ranks of both private and state bureaucracies, carrying out functions which often, at best, are only marginally productive (and are often counter-productive because the principal aim of such bureaucracies, logically enough, is to

²¹ See the Organization of American States, "Urbanización y el Medio Ambiente Humano en América Latina", Secretaría General de la Organización de los Estados Americanos, México D.F., 6-11 September 1971, p. 4., which also cites Simon Kuznets as saying that more resources are needed to give the same satisfaction in terms of housing, drainage, water, intra-urban transport, etc., than in less densely populated areas. This suggests that some measure such as threshold analysis would help to give a closer approximation to the real economic costs and benefits of concentrated metropolitan growth.

²² See the comment along these lines in *Human Settlements*, Department of Economic and Social Affairs, United Nations, New York, vol. 1, No. 3 July 1971, p. 12.

create work opportunities rather than solve problems quickly and efficiently). The less fortunate marginal populations, lacking the basic minimum training to enter service sector activity in offices or shops, seek to create their own opportunities in the tertiary sector.²³ They become street sellers of whatever commodity or service they can find, domestic servants for the middle class, or unskilled labourers in the city's infrastructure and especially in the construction industry which, "... is especially sensitive to changes in the rhythm of economic growth and to fluctuations in public sector spending. It is a sector to which unskilled urban labour unable to find work elsewhere gravitate, and one whose labour is not easily absorbed by other economic activities in the case of a recession in construction spending".²⁴ And some turn to petty crime. The unionized labour force in the modern sector, as might be expected, remains fairly stable in size, offering little access for the marginal groups.

Some authors, nevertheless, argue that city conditions represent for the migrants an improvement in terms of access to employment, and to health and education facilities in particular. Deterioration in the man-made environment is therefore of lesser importance in comparison with the new social, economic and political fields which open up to them and their children in urban surroundings.²⁵

A somewhat different picture however, emerges from studies carried out in a number of *poblaciones marginales* in Santiago, Chile, where the author found among those she interviewed:

"... la reducción del campo de percepción social y la dualidad de la orientación perceptiva del mundo social, entre algunos de los problemas destacados. Lo primero se manifiesta en la manera vaga, inorgánica y difusa en que se percibe el mundo no inmediato y directamente referido a la vida cotidiana, mientras que ésta se percibe con nítida claridad, con elementos precisos, que permitan una definición clara del compor-

²³ For a more detailed analysis of this phenomenon see W. R. Armstrong and T. G. McGee, "Revolutionary Change and the Third World City: A Theory of Urban Involution", *Civilisations*, op. cit., pp. 353-378.

²⁴ "Employment and the Utilization of Human Resources in Latin America", ECLA Social Development Division, November 1972 (to be published in *Economic Bulletin for Latin America*).

²⁵ See "Environmental Problems of Urban Development", op. cit., p. 7.

tamiento. Lo segundo se manifiesta en que la vida diaria dentro del propio mundo de la marginalidad se percibe y se define con elementos realistas y, en cambio, se recurre a elementos de contenido mágico para definir el resto del universo social.

"De este modo se puede señalar de una manera provisoria que no solamente se encuentra entre los marginados la presencia de traumas en la formación de la personalidad psíquica, fisuras que dan paso a la inseguridad, a las desviaciones de tipo delictivo en algunos casos o predisposiciones a un cuadro psicótico, sino que la situación de marginalidad afecta un nivel más profundo de la psicología individual y de grupo."²⁶

The two views are not, of course, mutually exclusive; the tendencies are heterogeneous and levels of political, social and economic involvement, and cultural understanding, will vary according to the opportunities offered by different cities, to the social flexibility of the society, to the social and cultural backgrounds of the migrants and even to the generation of *poblador*.

It can be argued that, at least, the migrants are no worse off than they were in the rural areas. By jumping more into the mainstream of national life which is represented by the cities, they have created severe strains on family and community life which have led to the sharpening of a whole range of social problems.²⁷ But in return for these social costs of marginality, the populations in the unfavourable *barriada* environments may enjoy certain benefits in terms of the *de facto* power to wring concessions from the authorities over immediate problems such as housing, water, power supplies, etc.

And various writers have lauded the positive qualities of the shantytowns. Beneath the superficial appearance of environmental squalor, they argue, the *barriadas* represent a chance to exercise self-help among groups of people who have, on the whole, adapted well to the exigencies of city life. Their desire to be self-reliant and to form a stable social entity in the larger society is usually manifested soon

²⁶ Carmen Pimentel Sevilla, *Vidas Marginales*, Editorial Universitaria, Cormorán, 1973, p. 31.

²⁷ For more detailed examples, compare the statements made in various national reports to the Stockholm Conference, and especially:

- (a) "Jamaica: National Report", n.d. (mimeo) p. 18;
- (b) "Breve Consideración sobre la Problemática del Medio Ambiente Humano: Caso Ecuatoriano", op. cit. pp. 11, 17 and 18.
- (c) "Informe Nacional de Bolivia sobre 'El Medio Ambiente Humano'", op. cit., pp. 4-5.

after they have taken land for settlement (admittedly the taking is usually by illegal means). They construct their own housing much more cheaply than the planners are able to, develop many of their necessary services, form their own local organizations, and apparently settle down to integrate into the life of the wider society.

This is doubtless a valid description of some situations, but in the dynamic conditions of Latin American urban life, a number of unanswered questions still remain. How long will such quietism last? The present stability could break down with the next generation which has been led to expect more from society. Its "felt needs" will undoubtedly begin on a higher level of expectation and perception than those of the older migrant generation.

A somewhat broader question of policy-making can also be raised here. It is no doubt true that the *barriadas* of Latin America are a "better than nothing" answer, especially for the policy-makers and planners—who are, in any case, usually presented with a *fait accompli* when land is taken for a squatter settlement. It is undoubtedly better than nothing for the *pobladores*, who find a measure of satisfaction in such settlements, that the authorities have not been able to give them. And it is of value to the middle class which can continue to receive a disproportionate share of public housing allocation. Yet this misses the larger issue that policies of prevention through effective regional development, agrarian reform, and the decentralization of economic activity could open the way to obviate such forms of growth with all their deleterious environmental consequences. Objectively, the squatter settlements represent neither prevention nor satisfactory cure; they are by definition a spontaneous response to social breakdown.

Although the serious practical difficulties impeding effective planning are recognized, the question of the *barriadas* is raised here to remind planners and policy-makers that it exists, not in isolation, but as part of a wider and integrated network of cause and effect.

4. Policies for integrated development

In considering the viability of a development strategy incorporating environmental objectives in Latin America the first step might be to analyse the possible consequences of allowing present trends to continue without interruption—or at most, with partial and short-term

policy interferences in different sectors of the system as individual crises emerge.²⁸

Without attempting to make a detailed extrapolation of every aspect of the continent's development/underdevelopment path it seems logical to expect that the tendencies towards concentration of population and economic activity will continue and that such concentration will be exacerbated by medium to high rates of population growth at least in the next decade or so. In the rural areas migration will probably do no more than partially alleviate the pressure of population on the land, although some relief may be gained through the colonization of new areas. This, however, will have environmental consequences, often of a negative nature.

Moreover, the indiscriminate import of technology and its use without careful consideration of the human and natural environmental consequences will have increasingly adverse effects of the type already described. It seems logical to expect that the destruction and waste of natural resources will continue apace, while inequalities in the sociopolitical structures will lead to widening gaps between the rich and poor groups in society.

None of these imbalances among the variables seems likely to result in any short-term or dramatic breakdown; the existing system has shown a considerable degree of flexibility in dealing with crises. But it is possible to predict that the uninterrupted depredation of the natural environment together with the contradictions inherent in the man-made and social environment will make the maintenance of the present pattern increasingly costly economically, socially and politically.

Many Governments in the continent realize the difficulties in trying to solve social problems by ignoring them and have made institutional arrangements to introduce a certain degree of order into development through the formulation of national plans. There is less evidence to show that such plans, even in the stage of formulation (leaving aside for the moment the discrepancies between formulation and implementation), are founded on an approach to questions of development in which the variables are considered as related parts of a total system.

²⁸ Part of the following outline is based on the structure elaborated in "A Project on Global Energy Planning", by the Group of Experts in the European Center of the Carnegie Endowment, La Mainaz, France, 4-5 May 1973 (typescript).

But the elaboration of development strategies depends on more than the avoidance of disruptive conflicts and the mere harmonizing of the different variables in the development process; to be coherent, planning requires the statement of certain norms and goals demanding social and economic changes if they are to be attained. And in turn, such a positing of principles and aims requires the weighting and selection of certain alternatives in accordance with the goals decided upon.

Emphasis laid on improving the natural and social environment, to take one example, might well call for an adaptation of technology so as to conserve resources, to provide more employment, and to change consumption patterns of society, so that, instead of the use of scarce capital resources for the production of private motor vehicles, investment would be diverted into providing improved public transport services and intermediate (and cheaper) forms of transport—such as bicycles—to serve the majority of the population. Such a policy would be aided, too, by forms of urban planning which, among other things, allow people to live closer to their work and to social and cultural facilities, and so help to create a sense of community within the corpus of the larger urban entity.

Taking the environment factor as the starting point in peripheral regions the planner and policy-maker could come to the conclusion for example that a significant change in life styles and socioeconomic structures is a necessary prerequisite for assuring development on the basis of a higher level of regional self-sufficiency.

The adoption of such a norm would involve much more emphasis on the conservation of resources through multiple use and recycling; on the planned use of local resources—timber, stone, clay, etc.—for building, roads and other infrastructural work; the development of small indigenous locally-run enterprises such as agro-industrial and handicraft industries based on medium or low technology of an inexpensive nature and adapted to local requirements and capacities (but not excluding the use of other levels of technology where necessary for large-scale projects); and it would require the stimulation of latent creativity and initiative within the local community through education and extension services, and through broadening the social bases of participation in decision-making.

Acceptance of a strategy such as this might help to open the way for a much more con-

certed form of development, allowing for the conservation of scarce resources (in, for example, the transport sector where much of the expensive infrastructure of motorways, railways, and terminals could be at least postponed) while making more effective and balanced use of the available factors of development.

To sum up, an important—an essential—step in the planning process is the statement of ideal objectives based on certain norms and principles which are considered crucial for the achievement of more balanced patterns of development. Such normative planning is required to clarify goals and principles among the policy-makers and to detect the inadequacies and contradictions of existing styles of development. But it is obviously not the final condition for planning in societies where the many constraints imposed by socio-economic, political or, to a lesser extent, physical obstacles have to be taken into account.

Feasibility studies will be necessary to try to reconcile the differences between desirable goals and the limitations imposed by the real situation. The constraints on action in most Latin American countries are formidable. Obstacles raised by special and influential groups, the conservatism of government authorities, the deadweight of custom and of traditional attitudes, administrative inefficiency and the sheer lack of qualified human and financial resources are all part of the systematic limitations which the policy-maker is bound to consider in trying to reconcile normative goals with the practical realities of a given situation.

Past experience indicates that Latin American planners have not had conspicuous success whether in finding a satisfactory compromise or in reconciling the different variables which might help to produce more integrated development policies. Attempts to regulate or alter existing tendencies have included:

— policies to slow down population growth, although these have thus far been talked about rather than actively implemented;

— anti-pollution legislation aimed at preventing the physical deterioration of urban and industrial environments,²⁹ but, as with popu-

lation policies, such activity has been undertaken in isolation without regard to socio-economic factors which are the major determinants of environmental conditions;

— regional development policies, using a technical approach borrowed from the affluent nations (which have, themselves, had only partial success despite the wealth of human and financial resources available) that have attempted to slow the growth of the great urban concentrations by channelling economic activity and people into alternative growth poles, created essentially according to a calculus of private economic costs and benefits;

— agrarian reform programmes which have in many cases resolved themselves into “pilot projects” or colonization schemes instead of large-scale redistribution aimed at reconciling greater social equity and economic efficiency. In few cases has an agrarian reform bringing about major economic, social and political change in the rural areas been successfully introduced;

— urban reform, zoning, and housing policies whose impacts have been inadequate compared with the scale of demands imposed by the unbalanced regional development which has taken place in the countries of the continent. It is difficult to calculate how far housing policies have fallen short of needs,³⁰ but the visual evidence leaves little doubt that the influx of migrants into the urban centres, has made a mockery of most housing programmes—and, for that matter, of urban transport, zoning, social service or public utility schemes.

The reasons for the lack of success experienced in most planning endeavours throughout Latin America seem fairly clear. First, the need to select among the various factors to evolve strategies of integrated development has not generally weighed very heavily in the total scheme of Governments’ intentions. Instead “development”, for most policy-makers, has been considered a matter essentially of promoting economic growth, of expanding the production of goods, and of raising the gross national product, rather than in terms of the production and distribution of goods and services to satisfy the social, cultural and environmental needs of all the population. And where, in addition, there are conflicts between

²⁹ A brief report of the work of one such body set up by agreement among the Government of Chile, the World Health Organization, and the United Nations Development Programme in 1963, appears in “*Instituto de Higiene del Trabajo y Estudio de la Contaminación Atmosférica*”, Santiago, Chile, World Health Organization, Geneva, 1970 (mimeo).

³⁰ *Human Settlements*, July 1971, op. cit., p. 16. See also *World Housing Conditions and Estimated Housing Requirements*, United Nations publication, Sales No. 65.IV.8, p. 32.

private and community goals in the growth process it is usually the latter which lose.

Looked at in a slightly different way, it can be said that the failures have resulted from a subordination of non-economic goals by the powerful socioeconomic interest groups which control the political and administrative machinery. The organizations to which advisers and planners offer their suggestions have little power to change this even if they believe in the ideal schemes offered by the experts.

But even if such obstacles can be overcome and the stage of implementation reached, policies often lose their value by being put into practice individually with little reference to other associated issues. The examples quoted earlier indicate that such policies have been conceived of and implemented as isolated measures with limited aims and not as integral and interrelated parts of a larger national strategy.

Or, alternatively, in cases where the problems are seen in their wider context, existing socioeconomic obstacles inhibit effective action being undertaken. Two examples, representing environmental problems at the extremes of urban modernization and rural stagnation, both identifiable in different variations in a good many Latin American countries, will help to illustrate the problems.

First, the crowded centres of the great urban agglomerations have experienced levels of air pollution too high to be ignored. Eventually the authorities conduct studies, pass laws, and set up regulatory mechanisms to deal with the problem. It turns out, however, that important industrial concentrations have already been established on the side of the urban area from which the prevailing winds come. Their output of fumes can be reduced to some extent but not eliminated, and their relocation would require prohibitive costs; and would be resisted by both *entrepreneurs* and workers. The urban public transport system, too, is a major contributor to pollution, and this is an even more intractable problem. Most of the vehicles are old and in poor condition. Transit fares are very low, and it would be difficult or politically dangerous to raise them very much in view of their importance in the budgets of the urban masses. The bus companies can function at a profit only by using old vehicles with a minimum of maintenance. Effective regulations to keep excessively polluting vehicles off the streets would paralyse the transit system, and confront the authorities with unmanageable

protests. The attempts to combat air pollution by regulation, therefore, are likely at best to hold it within limits more tolerable than would be the case without regulation. A drastic reduction in pollution would require thoroughgoing changes in the patterns of urban growth, and even in urban income distribution.

Secondly, certain particularly impoverished groups of cultivators on marginal lands raise goats and make charcoal to obtain a little cash income. Goat grazing and charcoal burning are destroying what little forest cover remains in the hills and causing disastrous erosion. The cultivators themselves are aware of this, but cannot dispense with their supplementary livelihood. Regulations prohibiting goat grazing and charcoal burning thus can be enforced only by repressive means and at the cost of intensifying the poverty, or driving off the land, thousands of families already at the margin of subsistence. An acceptable and effective solution to the apparently straightforward problems of deforestation and soil destruction thus requires capacity on the part of the authorities to resettle or offer alternative livelihood to the families in question, and this in turn requires effective agrarian reform, employment and educational policies.

Public agencies are not necessarily unaware of the causative factors but, because of a lack of capacity to confront the much broader set of problems involved in an adequate response, they have to fall back on palliatives; broader responses run inevitably into the rigidities and contradictions of the whole system. When, to these difficulties are added problems of sheer lack of statistical and other data, and the fact that the societies of Latin America are subject to the constantly changing (and mainly exogeneous) pressures from changing technology which tend to conflict with other development goals, it is understandable that Governments see few alternatives to short-term "solutions".

In fact, stopgap policies seem so far to have justified themselves by keeping the most urgent problems of underdevelopment at bay and by creating minimum living conditions sufficiently flexible to allow most of the population to adjust somehow to their circumstances. Given this situation, the natural—almost inevitable—tendency of Governments is to avoid policy responses of a large-scale nature which might alienate powerful interest groups while not having the counter advantage of attracting immediate support from the disadvantaged sec-

tors of society. In any case, basic changes are not likely to be felt in the short term and few Governments act in terms of the longer period, beyond their own expected tenure of office.

It is through an understanding of problems deriving from the socioeconomic system itself that general development strategies have to be evolved and, in turn, converted into effective operational plans.

Some of the groundwork has already been done in Latin America, and, to judge from the generally favourable response to the concept of integrated development or the "Unified Approach" to development strategies set out by the Economic Commission for Latin America,³¹ there appears to be at least formal agreement to consider planning in a broader perspective. More specifically, some Governments have accepted in principle—or have anticipated—the recommendations of the United Nations Conference on the Human Environment that the environmental factor should be included integrally within the total design of development planning.

Although a start has been made, it would be unrealistic to expect that governmental response to the arguments for a "unified" or "integrated" approach to development will be more than tentative for some time.

In the meantime some of the more important conditions for the implementation of integrated development strategies in the different nations of the continent can be briefly outlined so as to give some appreciation not only of the reality which is to be reconciled with normative goals, but also of the major areas to which the arguments for new approaches might be directed. Such conditions will include:

- the political determination of Governments to initiate such policies, which in turn depends on persuading the influential social and economic groups of their value and viability;

- the operational efficiency and organizational flexibility of the administrative machinery of government;

- the financial capacity of government and the trained manpower available to it; and

- the ability of planners to carry out national development strategies not only in terms of the wishes and cultural values of different social groups (which by itself may imply

³¹ See *Evaluación de Quito: Primer Bienio de la Estrategia Internacional de Desarrollo*, Naciones Unidas, CEPAL, Santiago, April 1973.

merely a passive acceptance of what is being offered) but also with the active—and, at times, the necessarily aggressive—participation of those affected by the plans. The whole question of popular participation in particular is a complex one and its attainment depends in large measure on the education of all concerned in the policy changes. This does not imply, hopefully that people will be manipulated to gain their acceptance of the planners' schemes; just the opposite, that it might involve experts and people jointly working out methods to formulate and implement policies. And this would require mutual education, through contact of both sides in an effort to change attitudes and reduce as far as possible the inevitable incomprehension and mistrust that is likely to arise,³² of course, such conditions involve the need for change, based in part at least on compromise to break down political, cultural and social constraints and open the way for the elaboration of "scenarios" of integrated development.

The final condition to be noted in the dependent market societies of Latin America is that of national autonomy. The implementation of integrated strategies is going to depend on the ability of national, regional and local authorities to act with a considerable degree of freedom from external pressures. And this, in turn, will depend largely on the extent to which the other conditions are achieved.

5. Conclusions

One of the themes that this report has attempted to stress is that, although there are close and interacting relations between population and the environment, such links cannot be considered except in relation to their situation within the wider sphere of societal development. These relationships, in turn, raise further implications for both elements in the development process.

For population, the confrontation with the other development variables may help to clarify one of the issues that has been a source of contention: whether population is a nega-

³² Solon Barraclough, "Rural Development Strategy . . .", *op. cit.*, p. 28, referring especially to the rural situation, writes of the need for "full *campesino* participation" in development policies, and continues, "... all rural development strategies will remain inadequate until the hard political decisions are taken to move directly towards development goals in spite of the powerful interest groups opposed to sharing their power and privileges with the *campesinos* and other hitherto powerless groups".

tive or positive element in the achievement of societal goals. A widely diffused position at present seems to be dominated by the supposition that people are a nuisance, a drain on resources and a barrier to progress.

This is not particularly helpful to countries in which potentially the human resource is by far the most valuable available to society. Within the framework of a long-term policy to slow population growth, there seems to be much greater value in considering the positive attributes of people—as producers, decision-makers, contributors to culture and civilization—rather than as rats in a granary, predatory, destructive, and in the final analysis, dispensable. And the latter attitude is particularly inapposite in the “developing” world where the consumption of the world’s resources *per capita* is extremely low compared with that of the affluent countries.

Looked at globally, development objectives will obviously have to involve a slow-down in the rates of population growth and the achievement of a more balanced spatial distribution but not every nation in the world can or must proceed at the same pace. In Latin America reductions in the growth rate and changes in the distribution of the population will come—if at all—as a consequence of development and not as part of a policy package labelled “zero economic growth; zero population growth”. To reiterate what has been stated earlier in the report, it is precisely through the relevant employment of all the development variables that conditions of greater security will be created in the lives of Latin American rural and urban masses. Such conditions will then allow for changes in attitudes so that children are seen by society as human beings, and not primarily as forms of social security, additional wage earners and props in one’s old age.

Similarly the population-environment relationship ought to be considered in the wider context of the society as a whole. To equate population pressure simplistically with environmental despoliation is, in Latin America, a partial and superficial approach which fails to take into account the systematic pressures which result in the misuse of natural resources in rural areas, however thinly populated, and the degradation of both the man-made and natural environments in the urban centres. Questions of spatial imbalance and inappro-

priate technology and production-consumption patterns have already been discussed and their role in the population-environment-population relationship has been pointed out.

It might, therefore, be most useful to put the relationship clearly into its global setting by asking the following question: who (or which groups in society) is producing a poor environment for whom? And this subsumes a series of related questions. Who is responsible for the pollution caused by the private automobile, and for the inadequate transport services? Who benefits most from the minerals extracted from the countries of Latin America, and who suffers from the manner of their extraction and the appropriation of the returns? Who (or what pressures in society) is responsible for the continuous stream of migration from the poor environmental conditions of the periphery to the often equally poor conditions at the centre? The answers to these will require an approach which is somewhat broader in nature than has been demonstrated in most analyses up to the present.

To conclude, a final comment on the role of the environment itself should be made. As the Founex meeting emphasized on a number of occasions,³³ environmental questions and economic growth ought not to be treated as mutually exclusive alternatives; rather, they should be complementary ingredients of Latin American development programmes. The environmental factor has the potential to bring into focus the socioeconomic and physical structures of the countries of the region and so broaden the basis for unified development strategies.

But this will occur only if the environment is integrated into development policies aiming to promote the well-being of the society as a whole. If it comes to be seen as something extraneous to the daily problems confronting the legislator or planner, or as merely a fashionable issue likely to compete for scarce resources with other demands of apparently greater immediate urgency, it will be either ignored, or, to satisfy national prestige—or loan and credit requirements—will be added as little more than verbal decoration to already decided policies.

³³ See *Development and Environment*, Report and Working Papers of a Panel of Experts convened by the Secretary-General of the United Nations Conference on the Human Environment (Founex, Switzerland, 4-12 June 1971), Mouton, Paris/The Hague, 1972.

LATIN AMERICA AND THE WORLD POPULATION CONFERENCE¹

1. *Demographic situation and prospects of the Latin American countries and principal attitudes to demographic policy*

In a wide-ranging debate, in the course of which statements were made by all delegations present, the representatives of various United Nations agencies and the secretariat of the meeting, the demographic situation of the Latin American countries, the medium- and long-term prospects for their population, and the various attitudes and factors that have a bearing on demographic policy were commented upon at length.

Without going into details, the following paragraphs endeavour to highlight the most important conclusions reached in the course of the discussions. It should be mentioned that these discussions are the first on the subject of population to have taken place between Latin American Governments and, in general, between member States of the Commission, and are therefore likely to be of particular interest to the World Population Conference to be held later in 1974.

The most significant aspect of the debate was its demonstration of the awareness that has developed in just a few years of the importance of demographic factors as a basic element and integral part of the process of the economic and social development. Even considering the differences in the population situation from one country to another—deriving from their historical and cultural background, their endowment with natural resources, their style of development, their economic relations with

other countries, internal social structure, level of industrialization and urbanization, and other variables—the statements of participants left no doubt that Governments and national communities were devoting the utmost attention to the question of demographic growth and to various population processes within the broad context of economic and social development.

The debate made it clear that the Latin American countries were concerned above all with improving the conditions of human life by remedying past short-comings and opening up a horizon of greater well-being and dignity for mankind through integrated development. Their commitment was to the achievement of rapid development in a variety of ways in keeping with their different national conditions. At the domestic level, it was necessary to consider development as an integrated process involving qualitative and quantitative changes and the achievement of a fair distribution of income, increased employment opportunities and greater social well-being.

For that purpose, adequate international co-operation was required in order to ensure fairer economic relations and access to external markets, scientific and technological support, financial collaboration and multilateral or bilateral assistance in the many aspects of development.

The 316 million people inhabiting Latin America today faced a tremendous challenge, greater even than that of the past 25 years, inasmuch as international conditions were still unfavourable and internal disequilibria persisted in many areas.

One of the features of the region's problems was the very trend of the fundamental demographic variables; the rejuvenation of the population, the prevalence in most countries of very high rates of natural increase because of the absence of any significant reduction of fertility to counteract the rapid decline in mortality, and heavy migration from rural to urban areas.

With the exceptions referred to below, Latin America as a whole had in recent decades been the region with the highest annual population growth rate—very nearly 3 per cent. This meant that the population doubled every 23

¹Prior to the World Population Conference, ECLA, jointly with the Secretary-General of the Conference, the United Nations Population Division and the Latin American Demographic Centre, sponsored a Latin American Preparatory Meeting for the World Population Conference, held at San José, Costa Rica, from 15 to 19 April 1974. This text, which is an excerpt from the Report of that Meeting, reproduces only the summary of the proceedings and the conclusions. It therefore does not include the part dealing with the organization of the Meeting or the annexes containing the lists of delegations and documents, statements by the delegates, and comments sent to the ECLA secretariat by delegations after the Meeting.

years. The crude death rate, which was already relatively low, would continue to drop during the next few decades; the crude birth rate, which was close to 40 per thousand, was still determined in most countries by numerous factors that tended to keep it high; the proportion of the population less than 15 years old was around 43 per cent, and that factor—together with the population over 65 years of age—gave a high dependency index. The growth rate of the urban population was nearly 5 per cent per year, in spite of which the population living in rural areas was still increasing at an annual rate of 1.7 per cent, which was faster than the total population growth in most of the developed countries.

It was true that there were already signs of a change, though the process was still slow. The over-all growth rate seemed to have passed its peak in recent years. However, because of the effect of demographic inertia, recent slight declines in fertility from very high levels in some countries with very large populations and some bigger reductions in fertility in smaller countries would take a long time to affect the age structure, the number of persons newly joining the labour force, and internal migratory flows. Consequently, it would be a fairly long time before they relieved the pressure that was being increasingly felt in some States—as was made clear in the course of the debate—on arable land, employment, educational and social services and, in certain cases, on limited national territory.

At the same time, within the general situation so described, the debate made it very clear that there were considerable differences in demographic conditions from one Latin American country to another. A small group of countries had low growth rates and a low ratio of population to present or potential resources; in such countries there was an urgent need for increased demographic growth so that they could exploit their resources and settle population in vast underpopulated territories.

At the other extreme, several physically small countries, some of which had a poor endowment or variety of natural resources, had a very high density of population and suffered real demographic pressures that were further accentuated by high fertility rates. A large group of other countries was in an intermediate situation in terms of territory and resources, but considered that the very high rate of natural increase of their population posed an ac-

tual or potential obstacle to development, either because the population growth alone absorbed a substantial part of their investment capacity—and therefore prevented the full utilization of the labour force—or because it provoked serious imbalances between sectors or between rural and urban areas that made it more difficult to find a solution to the problem of securing integrated economic and social development within a reasonable period of time. Finally, there were some other countries with high population growth rates which, because they had ample natural resources and large areas of unexploited land, considered rapid population growth to be a positive factor in maintaining their rate of development.

It was recalled that, in the course of the United Nations symposia held in Cairo (June 1973)², it had been found that the relationships between demographic variables and economic and social change were highly complex. Although the central role of man as the creative element in development processes and the importance of a growing population in the formation of an integrated economy and large domestic markets were widely accepted, no satisfactory analysis had been made of the consequences of the very high rates of population growth prevailing in many developing countries. Some of the effects of such growth were already apparent, however, as had been noted with respect to Latin America.

In the course of the debate it was recognized that the Latin American countries' knowledge of these relationships was still inadequate and that it would be necessary to learn more about them through the collection of basic data and the execution of systematic research in order to obtain more valid conclusions. That did not, however, rule out the formulation of tentative plans, according to the degree of urgency in each country, that could help them to outline population policies.

Furthermore, some aspects of the development process affected more precisely the demographic variables. As shown by the past experience of countries with various economic and social systems, processes of change which led to a higher real income without great inequalities, with rapid progress in educational and health programmes, greater participation of women in labour and an improvement in their general status, and a rapid increase in communications tended to foster new attitudes

² See *Report of the Symposium on Population and Development*, Cairo, 4 to 14 June 1973.

among couples towards the spacing of their children and the ultimate size of the family.

In some Latin American countries, or in certain parts of such countries—especially in urban areas—there was already a trend towards a decline in fertility, even before the introduction of family planning programmes. That suggested that a demographic policy designed to moderate the birth rate should seek to secure, in the process of economic and social development, a set of changes which affected the motivations of the family. The same could be said of policies tending to increase fertility.

Only a few Latin American countries had so far claimed to have adopted explicit economic and social measures designed to transform the reproductive behaviour of the family by creating suitable conditions for the desired changes. Some countries were pursuing structural changes and development processes that probably had the present or future effect of modifying fertility, and in one or two cases specific targets had even been established. Most Governments, however, did no more than support family planning programmes without their being properly linked to economic and social development plans, while some considered family planning merely as part of a mother-and-child health service.

During the debate, it became clear that the Latin American countries recognized the right of the family—already enshrined in the Declaration of 1958 and in subsequent documents of the United Nations—to decide freely on the number and spacing of their children. However, the information and services needed in order to exercise that right to the full were not very widespread, particularly in rural sectors and urban marginal sectors.

A considerable number of countries had prepared far-reaching national programmes of family planning and responsible parenthood within the framework of a global and integrated conception of economic and social development. Those countries intended to intensify such programmes in coming years as a means of facilitating their development tasks and improving the living conditions of the population as a whole. It was noted that, in some of the smaller of these countries where demographic pressure had increased, those programmes had evolved in accordance with more precise definitions of the demographic growth rates considered to be suited to their situation.

It was concluded from the foregoing considerations that, while the subject of population

policy was daily acquiring more importance in Latin America, it had not yet received sufficient study. That was because population policy involved a wide range of inter-relationships between economic, social, cultural and political phenomena, for which there could be no purely technical solution and for which there could be no question of isolated solutions either. That explained the emphasis placed during the debates on the need for population policy—however it was defined—to be closely related to the other essential aspects of development policy, and on the need to reject partial solutions and external pressures purporting to secure, by the mere introduction of family planning programmes, a reduction in fertility which would automatically raise *per capita* income by a simple process of cause and effect.

It was stressed in particular that population policies, as part of economic and social development plans and programmes, were strictly national matters which each country must discuss, formulate and adopt in accordance with its own cultural characteristics and basic situation and prospects. It was pointed out, in that connexion, that in some Latin American countries population policy must consist of stepping up the growth rate, even through massive support of immigration, in order to make full use of those countries' vast potential in terms of resources.

In other areas, however, the policy might consist of the gradual redistribution of the population by means of internal movements under rural or urban settlement programmes. Even where it was considered necessary to bring about a drop in fertility within a reasonable period of time, redistribution or relocation measures should also form an integral part of population policy.

It was further indicated that, generally speaking, it was impossible to carry out population policies without a simultaneous intensification—and in many cases reorganization—of educational, health, housing, environmental and social policies too.

As a general conclusion, it could be noted that the Meeting demonstrated the very definite interest of the Latin American countries in considering their demographic prospects—immediate or distant—as a vital component of their development problems. At the same time, it was felt that population was not a regional or isolated matter but fitted into a world-wide context involving, in particular, the other developing countries. The Meeting fully recog-

nized the international interdependence which characterized the present epoch and would no doubt become still more accentuated in the future.

The prospect of a Latin American population which could range, according to projections, from 612 million to 650 million inhabitants by the end of the present century was no reason to adopt a pessimistic view of humanity. On the contrary, in view of the priority that would be given to the betterment of the human situation, it should represent a challenge to be taken up with the support of the region's potential in terms of education, science and technology. That challenge could be successfully accepted if society were organized in such a way as to bear the desired fruit, especially for the vast masses who were at present excluded from the benefits of progress.

The participants agreed that, under those circumstances, the Latin American Governments could attend the forthcoming World Population Conference in a constructive spirit which, with the support of international co-operation, would help to create the necessary conditions for placing each country in a position to achieve its objectives.

2. *Draft World Population Plan of Action (ST/ECLA/Conf.48/L.6)*

In presenting this document for consideration by the delegations, the Director of CELADE noted that it had not always been possible to arouse the interest of politicians in the significance of the demographic trends peculiar to each case nor their effect on society.

The discussion at the Latin American level of the Draft World Population Plan of Action³ should give an indication of whether the countries of the region believed that the State had a role to play in the planning and implementation of a population policy, and if so, which variables should receive priority attention, how the combined efforts of countries or groups of countries could contribute to the search for solutions in critical areas, and how ECLA, CELADE and other agencies of the United Nations system could collaborate with the countries so that the Plan, which was conceived at the world level, could become operational at the Latin American level.

She pointed out that the task was a difficult one because of the great heterogeneity of

³In order to avoid constant repetition of the lengthy reference to the "Draft World Population Plan of Action", the word "Plan" will be used to refer to the draft presented in the document referred to above.

Latin American societies and the lack of experience in how to insert population policies in global development policies.⁴

She also pointed out that, as the Secretary-General of the World Population Conference had already said, the Plan had had the benefit of the assistance of the scientific community through the Advisory Committee of Experts specially set up for the purpose and the four preparatory symposia for the Bucharest meeting. The Plan did not entail any kind of international commitment in terms of demographic targets, but merely invited the countries that considered their own rates to be too high or too low to study the problem and decide what action to take. Finally, the Plan did not constitute an independent strategy, but was part of the general development strategy in the context of human rights and in keeping with the principles laid down in the relevant international instruments.

As regards the Plan's recommendations concerning mortality, she pointed out that the document ST/ECLA/Conf.48/L.5 stated that there was a long way to go in reducing mortality in the region, and that if the age-specific mortality rate recorded by Sweden in 1966 were to have prevailed in Latin America in the present five-year period, 1,650,000 lives would have been saved annually in the region, half of them corresponding to children under five years of age.

The Plan also recognized the diversity of national population policies required and strove to reflect the concerns of individual countries. In Latin America it had to be borne in mind that although there were countries, such as Mexico, which had maintained a high level of fertility unchanged in spite of their high rates of urbanization and economic growth, there were others, such as Costa Rica and Chile, where there had been marked and sustained reductions which the forecasts made several years before had failed to foresee.

Although most of the countries maintained that their family planning programmes had no demographic objectives, such programmes did in fact turn into potential instruments of demographic policy because of the latent demand among the female population, especially in urban areas, for information on ways to reduce their fertility. In such programmes, therefore, government policy must be harmonized with

⁴See CELADE, "Population policies and the family: the Latin American case" (ST/ECLA/Conf.48/L.4).

the full exercise of the right of parents to have the number of children they wanted.

As regards population distribution and internal migration, the Director of CELADE said that it must be borne in mind that Latin America was a continent where the population was very unevenly distributed, tending to concentrate in the big cities and occupy the rest of the territory in a very scattered form. Many cities doubled their population every 10 years, but the rural population nevertheless continued to grow at a rate similar to that of the total population of the developed countries. It was possible that a gradual decline was taking place in the predominance of the metropolis, but only in the very long term.

With respect to international migration, she recalled that from being a region of immigration in the 1950s, Latin America had become a region of emigration in the following decade. It was tentatively estimated that the exodus amounted to around 150,000 persons annually between 1965 and 1970. That constituted a phenomenon which the economic integration schemes currently existing in Latin America must take into account and incorporate in their objectives and in the policies designed to secure them.

When the meeting began its consideration of the Draft World Population Plan of Action, the Secretary-General of the World Population Conference voiced some basic queries. Did the Plan represent a flexible and balanced document, compatible with the great diversity of political systems, degrees of economic and social development, natural resources and world demographic problems? Did it really respect both the sovereignty of nations and the fundamental human rights? Could international co-operation in the implementation of demographic policies result in a drop in international co-operation for development? Was it acceptable that the provision of international technical and financial co-operation might depend on whether or not the applicant country put into effect certain population policies?

With respect to these queries, there was consensus among the participants that the Plan before them did indeed respect the sovereignty of nations and the human rights of individuals, that it was balanced and coherent, and that it was also compatible with the diversity of economic, social and demographic situations existing in the world in general and Latin America in particular. It was also considered that in the course of the preparatory work for the Plan it

had been possible to observe an increasing convergence of Governments' views in the field, and it was also pointed out that the document under consideration laid down, without leaving any room for doubt, that international co-operation in the implementation of population policies should not and could not be at the expense of economic assistance for development, but must be in addition to it (paragraph 73 of the Plan).

It was noted, however, that in view of the great importance of the principle of respect for the sovereignty of States in population matters, that principle should be specifically stated in the first paragraph of the Plan. In that connexion, one delegation, which obtained unanimous support, proposed that the Plan should start with the affirmation of the principle of the sovereign right of each State to formulate its own population policies, in accordance with its own objectives and national requirements. Without prejudice to universal solidarity, that basic principle should govern any agreement on world or regional action, so as to back up the work of improving the quality of life for all the inhabitants of the earth through economic and social progress.

One representative said that when exercising that sovereign right, countries must bear in mind the effects that national policies could have on the community of nations in the present increasingly interdependent world, as well as the need to promote the fundamental human rights which were universally recognized.

One delegation considered that, without belittling the importance of national sovereignty, there was an urgent need to tackle population problems at the regional level, with a view to the demographic integration of Latin America.

Another delegation considered it indispensable to define the role of national Governments in the Plan more explicitly and to rewrite the chapter on its principles so as to make it quite clear that respect for national sovereignty was the basic principle of the Plan. It also pointed out that the immense differences between individual national situations and the different views of nations on their roles and positions in the international community prevented the application of a uniform plan of action throughout the region, and much less in the world as a whole. It was therefore necessary to resort to regional and subregional approaches in order to apply plans of that type.

The same delegation considered that the isolation of demographic problems was only jus-

tified in analytical terms, as such problems formed an organic part of a universal complex. The importance was emphasized of approaching these problems in a comprehensive manner, with sufficient accent on the social and economic development of all countries, especially in areas in which most could be done to give dignity to human life, without by-passing the close interdependence existing between human rights and the evolution and prosperity of national communities. Any action which violated human rights jeopardized the long-term viability of these communities.

Another representative stated that the Plan should also clearly establish that the basic objective of every population policy—and hence of the Plan itself—was to improve the quality of all human life, without any discrimination whatever.

It was also noted that—in accordance with the recommendations approved by the Population Commission of the United Nations at its third extraordinary session—the Plan should include: (a) a well-defined and clear declaration of principles and objectives based on those already laid down in the documents and deliberations, and (b) a supporting programme with concise, explicit and reasonable recommendations and options for action at the national and international level, clearly laid out for consideration at the political level on the basis of document 292/Rev.1 (first version of the draft) and of the observations and proposals formulated by the Population Commission during the session in question. The recommendations should also be readily understandable by the general public.

One representative considered it desirable that certain elements already contained in the Plan should be raised to the status of principles in it: (a) the right of couples to determine the number and spacing of their children and to have access to the information and services needed to enable them to exercise that right; (b) the right to mother-and-child attention as an objective in itself, and (c) the improvement of the status of women.

One delegation proposed the addition of the following sentence to paragraph 18 (b): “The improvement of the status of women in the family and in society as a whole is a contributory factor in reducing the size of the family; moreover, offering women the possibility of planning their fertility goes hand in hand with their rights as individuals and with a better social status”.

Another representative—referring to the efforts to reduce mortality and morbidity rates—pointed out that international assistance was also necessary in the countries that had managed to lower those rates significantly, so as to enable them to maintain or further reduce the levels achieved.

One delegation suggested that the following text should be added to paragraph 11 of the Plan: “Attention is drawn in particular to the contribution which family planning can make to the improvement of mother and child health, through reductions of the number of births and better spacing of pregnancies during the most fertile years”.

With regard to the means for affecting fertility levels mentioned in paragraph 14 of the Plan, it was noted that the text should clarify the relation between direct and indirect measures affecting those levels.

In view of the concern of some delegations regarding quantitative targets, it was explained that the targets given in the Plan were based on those set by countries which had fixed targets for themselves.

Also in connexion with the quantitative targets, one delegation wished to place on record—and received considerable support for this—its concern that, while the right of each State to formulate and adopt population policies and to set quantitative targets as regards one or all the demographic variables was recognized, there was a danger that failure to fix such targets might be interpreted as meaning that the country concerned was not tackling its demographic problems or had not adopted a population policy, and worse still limitations might be placed on the right of each country to receive, other things being equal, the international or regional assistance it considered necessary for its national programmes in the area of population or development.

Another representative considered that in the section of the Plan concerning population growth more specific reference should be made to the reduction of such growth in the most developed countries, and suggested the addition of the following paragraph: “The most developed countries are urged to adopt measures to promote the continued reduction of their population growth rate, with the object of achieving bare replacement reproduction rates by 1985—if these have not already been achieved—as well as virtually stationary levels of population as soon as possible after that date”.

Several delegations pointed out that population growth rates must be considered in the light of the population density levels of the countries concerned.

In reply to the doubts expressed by one representative as regards the need for "increased co-ordination" mentioned in paragraph 77 of the Plan, the Secretary-General of the World Population Conference stated that the question of the machinery for implementing the Plan was not on the agenda of the World Population Conference to be held in Bucharest and the decision on this point was the responsibility of the regular United Nations bodies.

It was emphasized that as measures to regulate population growth only took effect over the relatively long term, it was essential to adopt other measures in order to prevent the growing size of the population from becoming a completely insoluble problem in the meantime.

Some representatives considered that the term "family planning" had in practice become associated with birth control objectives, and in the Plan it should therefore be defined in its true sense, so as to avoid mistaken interpretations of the text.

Several delegations pointed out that although the reduction of the birth rate was beneficial in certain cases, in others it might produce an aged population and replacement generations which were not adequate for maintaining national development.

One delegation recommended that it should be taken into account in the Plan that "the family" did not exist in the abstract: each social group had its own family type which was the result of its historical evolution and which conditioned family size.

The meeting considered international migratory flows within Latin America with special interest. One delegation remarked that it did not seem appropriate for the Plan to refer to migration solely as a problem, since in many cases it could actually be a solution. It therefore proposed that considerations should be given to the possibility of resorting to the redistribution of population at the regional level as an alternative means of tackling problems arising from the high population growth of some Latin American countries and as a step towards the progressive demographic integration of the region.

The same delegation mentioned the need to insist that countries receiving migration flows should take appropriate legal steps to ensure

that migrants were not only generators of wealth for the host country, but were also socially and economically integrated into it.

In accordance with the provisions of paragraph 41 of the Plan, it further proposed that ECLA should study the possibility of setting up an intergovernmental body for promoting the redistribution of population among the Latin American countries. Such redistribution would involve not only the physical transfer of migrants, but also the establishment of labour and social security agreements and, in general, the protection of the rights of migrants.

Several delegations expressed agreement with the above proposals on the full integration of immigrants into the economic and social conditions prevailing in the host country. They also recommended the establishment of bilateral and multilateral agreements to achieve this end.

One delegation pointed out that not only rural-urban, but also intra-urban migrations should be considered, and as regards population distribution policies, consideration should be given to the imbalances in age, sex and socio-economic characteristics which could appear as a result of selective migration.

The representatives of five countries of a subregional group recommended the insertion of the following text after paragraph 33 of the Plan: "The decisions which have been taken to date within the framework of regional and in particular subregional agreements constitute patterns of action which should be taken into account by the international community".

Other representatives expressed concern at the serious loss which spontaneous emigration, particularly to neighbouring countries, sometimes entailed for the labour force. The desirability was therefore indicated of studying development measures for the places from which those migrants came, so as to reduce such movements.

As regards the studies carried out so far on the relations between population and other economic and social variables, it was noted that their inadequacy made it difficult to formulate properly founded population policies. Although the research programme contemplated in the Plan was considered highly satisfactory, it was suggested that the conceptual outline should be complemented with proposals designed to make it operational.

One delegation attached great importance to paragraphs 45 to 66 of the Plan referring to

the collection and analysis of data, demographic research—including the study of the interaction between demographic and socio-economic variables—training, education and information. Although many countries had had to formulate their population policies with the data and analysis available, obviously further research should be conducted in order to gain a better knowledge of the consequences of present trends—or any change in these—and to generate adequate information on demographic processes. Technical personnel required for population programmes should also be trained as soon as possible.

In the course of the debates some concern was expressed as regards references in the Plan (paragraph 59) to the training of leaders. One delegation pointed out that this training was altogether different from the training of experts and administrators. A leader was a selector of values, while an expert was merely an economizer of resources in the attainment of those values, and was conditioned to accept given external values, which might not be adaptable to his cultural environment. This could be a definition of subversion: turning a leader into a follower destroyed the very concept of leadership.

One representative expressed reservations regarding the fact that in paragraph 79 of the Plan its biennial review was linked with the United Nations Report on the World Population Situation. The latter report could be analysed at the same session and thus be a related document, but it would be inadvisable to merge them, as both texts would suffer in the process.

Finally, it should be noted that in addition to the observations and suggestions made during the debates on the Plan—many of which are contained in annex IV of this report, apart from those given in the foregoing paragraphs—the participants agreed that the Plan was a good basis for the deliberations in Bucharest, where the Latin American countries proposed to continue expressing their comments and point of view so as to improve it as an operational instrument, in which capacity it was of great importance as a fundamental component of the development strategies established by the international community for the present decade.

3. Conclusions

From the summary of the discussions given in the foregoing pages and the statements made by the representatives of the member States of

ECLA and of the international agencies it is possible to draw certain conclusions, some of which have in fact already taken the form of recommendations or suggestions. In this third part of the report, these conclusions are placed in order and reviewed.

It should be noted first of all that the aim of this part of the report is to identify the topics and problems on which there have been clear signs of consensus in the deliberations of the Meeting, together with the points of initial coincidence of views and possible agreements among the different countries represented at it.

The following paragraphs give a concise summary of what are considered to have been the main conclusions of the work completed today.

1. There is an increasing awareness of demographic problems in Latin America and growing attention is being given to them within the broad context of economic and social development. There is consensus that, in order to solve problems of this kind, decisions must be adopted at a political level, whatever their orientation, content or scope.

2. In this sense, recognizing public interest in population matters, Governments are in agreement on the need to emphasize that all decisions on goals and methods of carrying out population policies are by their nature matters which concern the principle of national sovereignty. There is general agreement that countries should be free to set their own population goals and that these should always respond to national considerations.

3. It is recognized that, in accordance with the International Development Strategy and the Quito Appraisal, the prime task is integrated development on the basis of greater social equality, structural change and the participation and welfare of the mass of the population. This development will affect demographic variables and, in particular, may affect reproductive behaviour and family formation.

4. The Governments reassert that the improvement of life—with unrestricted respect for human rights—constitutes the basic objective of all actions in this field. The need to broaden the capacity of decision of individuals by promoting their more effective participation in economic and social affairs is thus indicated as part of this objective.

5. Population policies are not considered as an alternative to economic and social development but as one of the means of achieving it.

6. The population policies adopted by States in the exercise of their sovereign rights should in no way affect the criteria determining the allocation of international economic and financial co-operation.

7. During the process of demographic transition an extraordinary effort is called for to achieve economic and social development with a constantly increasing population. The international community and the developed countries should co-operate with the developing countries in this effort, by means of economic, trade and financial measures aimed at fairer international economic relations. It is particularly important to act upon the economic variables through increased international co-operation in those countries which, though they have high rates of population growth, also have a low population density and in the future will require a bigger population to make full use of their resources and occupy more effectively their economic space.

8. It is recognized that, taken as a whole, the rate of growth of the population of Latin America is the highest of any region in the world, and the high birth rate, plus the decline in mortality, means that there will be a large proportion of young people in the population for a considerable period. This in turn means that the over-all growth rate cannot decrease significantly before the end of the present century. Taken individually, however, the countries show differing conditions: (a) some show slow growth but possess vast spaces and resources, (b) others, though also possessing space and resources, have high growth rates; (c) others are in an intermediate situation; (d) still others, owing to their small territory or lack of resources, show symptoms of present or potential over-population.

9. Most countries, in recognition of human rights and as a basic contribution to the improvement of health, provide family planning information and services.

10. The great majority of the Latin American countries reject the idea of establishing quantitative targets in population programmes.

11. In general, the urgent need to consider policies for the internal geographical redistribution of population is recognized.

12. The existence of international migration problems is likewise acknowledged. However, some countries consider international migration as an instrument of population policy which may provide an alternative solution to problems of unequal population growth.

13. The need to promote integrated education, health, employment and other social policies as an essential component of population policy is established.

14. Population policies should be linked with development strategies and should concern themselves in this context not only with mortality and the birth rate, but also with the geographical distribution of the population, its relation to natural resources and the environment, and with international migration.

15. Development policies should give special attention to regional development, to the incorporation of new areas and depressed areas, to the creation of human settlements, to the more rational use of natural resources and to the adoption of measures which, while compatible with the accelerated rate of economic growth required, avoid the deterioration of the environment.

16. In the light of the statement of the Governments represented at the Meeting, the application of the World Plan of Action in Latin America will be inseparable from measures to intensify development.

17. On the one hand, there are all the questions relating directly to the population growth rate and to internal and international migration; on the other, there are the implications involved in considering the population variable in economic growth and social development.

18. As regards the first aspect, the discussion indicates that some member Governments advocate the drafting of special laws and favour the creation of institutions to prepare decisions and carry out the action of the public sector.

19. As for the second aspect, it is not just a question of including the population variable in development planning and programming methods, but rather of forecasting the consequences that the structure and rate of growth of the population may have for general plans and specific policies.

20. There is general agreement that national development plans and strategies must consider the population situation and trends as a fundamental aspect of public action in three respects: (a) as regards their interrelationship with the other factors affecting the process of development; (b) in the context of the social policy of Governments; and (c) in the light of national development projects and taking into account the most significant political and cultural consideration in each country.

21. The need to eliminate the barriers which hinder the full incorporation of women in social, economic and political life is considered to be a topic of the greatest interest. Only thus will women be able to carry out to the full their role as citizens and as one of the basic elements in the family nucleus.

22. As regards the improvement of family well-being, it is noted that the family constitutes the social nucleus on which the changes generated by development converge, while in its turn it affects the future behaviour of individuals for their entire life. Any population policy should bear in mind not only the effect produced on the family nucleus by variations in mortality and in the birth rate, but also the problems which affect its formation and modify its stability.

23. As stated earlier, in the light of the different social and economic situations of the countries important proposals were made in the Meeting regarding the conclusion of bilateral or multilateral agreements aimed at regulating migration among the countries of Latin America and facilitating the absorption of migrants, with the fullest respect for their human rights.

24. Generally speaking, the representatives of member Governments support the basic concepts of the World Plan of Action and make a point of its flexibility and its respect for the sovereignty of the countries.

25. The deliberations give grounds for concluding that—on the basis of respect for the sovereignty of the countries and recognition of the variety of national situations and orientations as regards development policies—there is a broad base for international collaboration within Latin America.

26. The proposals made by the Governments constitute a challenge to international co-operation which will call for an unprecedented effort on the part of ECLA, CELADE and other intergovernmental agencies. It is indispensable not only to assemble and organize human and material resources but also to find strategies which will offer a flexible and timely solution to the needs of the countries. New ideas and orientations need to be prepared and new possibilities opened up for harmonizing the imagination and bold thinking required with the search for practical ways to assist Governments which so request.

27. In view of the positions that Governments have adopted regarding the problems and policies of their countries, and in accordance

with the World Plan of Action, international agencies must be in a position to increase their activities in the fields of research, technical assistance, orientation and evaluation.

28. It is considered that the countries themselves are basically responsible for carrying out the necessary research, both on demographic matters and on the relations between population and development, for the formulation of the relevant policies. In this work, however, they should have the continuing support of the United Nations agencies operating in the region, which can and must co-ordinate their action in order to collaborate actively with the countries in the fields of research, training and the collection of economic, social and demographic data.

29. In so far as Governments adopt development strategies and policies incorporating demographic variables there is ample scope for international technical assistance. Although the limited extent of knowledge in this field still constitutes a serious difficulty, there is clearly an urgent need to make a serious effort to define the parameters and criteria of a population policy.

30. The population policies formulated by certain Governments and the development strategies prepared have, for the most part, assumed that there will continue to be a rapid increase in the size of the population over the next 20 years. Under these circumstances, it will be indispensable to accelerate the rate of development, while at the same time seeking more effective means of creating employment and providing such basic services as will help to turn the population into a factor of progress. The assumption of a creative attitude towards the challenge of demographic transition entails the adoption of new criteria and guidelines for urban growth, the geographical distribution of the population, rural development and the transfer and adaptation of technology.

31. It is necessary to implement social and economic policies systematically designed to avoid the marginalization of broad sectors of the population. For this purpose, it is indispensable to find realistic formulas for bringing education and health services to the vast majority of the population and transforming the patterns of rural life by increasing production and employment in this sector. Likewise it is necessary to prepare formulas for programming an expansion of the cities compatible with very high rates of urban growth.

32. All the delegations agreed on the desirability and expediency of holding a further regional meeting early in 1975 to assess the results of the World Population Conference in Bucharest and its implications for Latin America. It will also be useful to examine the experience and results of the different ap-

proaches adopted by the countries. In this respect, the Meeting at San José welcomes the offer of the Mexican delegation that Mexico City should serve as the venue for these new joint activities of the Latin American countries within the context of ECLA, CELADE and other United Nations agencies specializing in the population field.

DIFFERENT DEVELOPMENT MODELS OR STYLES

I. GENERAL APPROACH

Long experience has already been accumulated in analysing the most important aspects of the national economies. From its conception, the Economic Commission for Latin America (ECLA) has studied the economic development of the Latin American countries and has put forward its ideas regarding economic policy and the requirements for a rational approach to it. It has also recently undertaken the task of carrying out long-term over-all economic projections for the countries of the region. These studies must, however, be extended in scope and in depth to cover as many important economic and social aspects as possible, including the sectoral and regional structure of production, industrialization, import substitution, the foreign trade deficit, income distribution, external dependence, human and natural resources, urbanization, population, and fiscal, credit and monetary problems.

It is of particular interest to examine different concepts or styles of development and the relevant policies and strategies. Such studies can only be meaningful and useful, however, if they are integrated in as complete an over-all framework as possible, since to consider each problem or factor on its own would mean assuming—as a conditioning element—that all other factors were the same—which in practice may be more unrealistic than many other hypotheses—or it would mean accepting and applying a series of assumptions in an implicit, indiscriminate and improper manner, without explicit examination. In other words, to analyse each factor separately and disregard the rest would be to deny that the social, economic and political system evolves as a result of the constant interaction of all its component parts. Thus, for example, a given production policy influences the policies on human resources, technology, financing, wages and other factors, and is in its turn affected by them. It therefore seems unavoidable to organize these interrelationships along systematic lines: this can be done with a greater or lesser degree of accuracy according to the analytical instruments used.

The lack of sufficient statistics to prepare large-scale analytical or econometric models that will meet the above requirements has forced research specialists to employ techniques like numerical experimentation which facilitate progress in this important field.

In principle, the numerical experimentation model is based on an accounting scheme which is calculated yearly with the aid of the usual coefficients, propensities, elasticities and rates on which most information is available either directly or through international comparisons. Thus it is not too risky to formulate some reasonable conjectures.

When this model is applied to a simple policy—for example, increasing the share of labour-intensive technology—several of its principal effects can be foreseen without the need for any model at all. Thus in the example given employment will clearly increase while investment rates, and possibly imports, will decline. Even in this simple case, however, the model is useful for:

(a) Confirming the above deductions and quantifying them more or less accurately, as the data permit;

(b) Deducing the indirect effects, which may sometimes be important and are not easy to foresee (for example, the effects of the policy on the distribution of income, changes in the sectoral structure, and government and enterprise accounts);

(c) Accumulating all these effects over several years, which generally reveals final results that are difficult to predict at the time the policy is announced; and

(d) Calculating, in particular, the effects of complex policies whereby a number of measures are applied simultaneously with not always convergent results, so that it is not possible to guess their final effects.

Thus, for instance, it would not be easy to use a mental or deductive scheme to forecast the feasibility and consequences of a policy combining a labour-intensive technology with

an improvement in the distribution of income, which changes the sectoral structure of demand and affects import requirements.

It must be stressed that the reliability of the quantitative results will depend on the accuracy of the available data and on the hypotheses formulated regarding technical coefficients (productivity of labour and capital, average useful life, input and import substitution coefficients) and behaviour parameters. If the data are to some extent unreliable, the result of an isolated application cannot be taken as a forecast but only as a qualitative indication. Nevertheless, the model contributes towards a constant improvement in the results, and because it is a working instrument that is perfected in the course of time as regards both the information it processes and its actual structure, results perhaps originally regarded as provisional gradually improve in quality as more and more reliable data are used.

Furthermore, the possibility of working with an integrated model which includes the basic aspects of a country enables the short and the long term to be considered coherently. It is already a commonplace to repeat that short-term measures are meaningless unless they are inserted in a long-term frame of reference charting the general course that the countries wish to follow; in other words, short-term policy should respond to a national conception. It is usually forgotten, however, that unless this conception or image is explicitly stated, the fundamental element will be left to chance, or to the conjunctural struggle between social sectors.

The first phase of the work has consisted in applying the model to a style of development which is essentially the style predominating in Latin America as a whole, and an attempt has been made to compare the functioning of the economy in the medium and long term with the achievement of certain social and economic objectives that are considered to be of basic importance. The method used simultaneously considers the demographic and

educational aspects, social stratification, consumption, production and investment, foreign trade, ownership of capital, technology, income distribution and fiscal policy, and it determines how the principal variables will be modified as a function of the attainment of certain goals.

In the present stage of the work the objective has been to identify the major problems which are likely to arise in a continuing development of the traditional type, and, once these are known, to investigate the possible alternative solutions and what each of these in its turn would require. One of the central advantages in using a numerical model is that the important aspects are not only identified; their relative size is also estimated. For example, the problem of insufficient employment opportunities has received increasing attention. The projections of the model not only indicate that this is likely to remain a problem for some time, but also provide numerical estimates of its varying size with different rates and structures of economic growth. And this in turn makes it possible to specify the necessary magnitude of the changes which would be required to resolve the problem.

The data used in the model correspond closely to estimates for the region as a whole. The projections involve numerous assumptions which depend in part on policy decisions and so of course cannot be applied without qualification to any particular country. Nevertheless, much of the analysis can be usefully applied to individual countries whose general situation does not vary greatly from the regional average, introducing qualifications where the particular economy is sufficiently different from the structure used; or where policy measures are expected to alter the assumptions used in the projections. A central objective of the continuing work programme is to develop variants of the model based on data for each of several different "types" of economies—that is, representative of the variations in economic structures within the region—so that the implications of these differences can be analysed more fully.

II. THE BASIC PROJECTION

The starting point of the analysis is, then, the basic projection of the model. This begins with estimates of the situation which prevailed in the region at the end of the 1960s, and then assumes that the future pattern of development will be similar to recent historical experience. Essentially this means that economic

growth will continue to be centred around a modern sector whose products and production methods are patterned after those prevailing in the advanced industrial countries; and the higher income groups will continue to have consumption patterns styled after those prevailing in the Western industrialized countries.

The model works by assuming the achievement of certain goals, and then determining what is required to meet these goals, and what happens to important variables in the process. The major goal is in terms of consumption levels. Values for the entire model are calculated yearly, and the programme is carried to the year 2000.

The consumption goals are set for three different income groups. The highest income group is high urban, with 10 per cent of the population when the model begins, whose *per capita* consumption levels increase 3.4 per cent per annum. This is in line with the basic assumption of *continuismo*, permitting consumption patterns of this group to follow the rising levels in the industrialized countries. The other two income groups are low urban with 40 per cent and rural with 50 per cent of the population when the model begins. *Per capita* consumption of these two groups rises more slowly, averaging somewhat more than 2.5 per cent per annum. This lower average rate reflects the fact that within these groups there are large marginal elements whose incomes and consumption are likely to rise quite slowly.

Educational standards are raised so that by the end of the century practically all of the relevant age group is enrolled in elementary schools. In secondary and higher education over 80 per cent of the relevant age group is enrolled in the cities and over 20 per cent in the rural areas. These are large increases in enrollment; but it is basically the consumption changes which determine the over-all requirements and changes in the economic system.

Some of the other more general assumptions which underlie the functioning of the model are as follows. With respect to the population, the increase is at an annual rate of 2.9 per cent when the model begins and declines only slowly to 2.7 per cent during the last decade of the century. As already noted, half the population is rural at the end of the 1960s and a fairly moderate but steady migration to the urban areas is assumed, reducing this proportion to about one third by the end of the century. In absolute terms however the rural population continues to increase throughout the period at rates of somewhat more than 1 per cent per annum.

With respect to production, each of the major economic sectors is divided into two parts—relatively modern type production and more traditional type production—and incomes, productivity levels, capital requirements, etc. are different in the two areas. A basic assump-

tion linked to the type of growth projected is that the relative importance of modern type production will steadily rise: at the beginning of the model modern type production accounts for about 55 per cent of the total and this proportion rises to about 70 per cent at the end of the century. The shift is only relative however and there are substantial increases in more traditional type production in all sectors, including agriculture, throughout the period.

These are only a few of the more general assumptions used. There are many other more specific assumptions, the most important of which can be more usefully noted in the following sections dealing with the major results and requirements shown by the basic projection of the model.

1. Growth

The most general result is the increase in the gross product required to meet the goals set, primarily, as noted above, the rising consumption levels: these goals require that the gross product increase at an average rate of 7 per cent per annum during the last three decades of this century. Growth rates of this magnitude are difficult to achieve, especially for prolonged periods. Over the 20 year period 1950-70, for example, no country in the region was able to achieve an average growth rate of 7 per cent, although several countries did register rates of 7 per cent or higher for one of those two decades.

The first general conclusion which is specified by the use of a numerical model is therefore that a high growth rate is required to fulfil what at first glance seem rather modest goals: *per capita* consumption levels which rise at 2.5 per cent per annum within each of the two major population groups, and at a 3.4 per cent rate within the minority high income group.

Of the two principal factors which require the total growth rate to be so much higher than these *per capita* figures, the most important is the rapid increase in the population. In addition however there are important movements from lower to higher income groups, and it is assumed the new entrants are incorporated at the prevailing consumption levels. The largest of these movements is the rural-urban migration, even though, as noted above, this has been projected at a fairly moderate rate. A more rapid rate of migration would require a higher growth rate to achieve the given *per capita* consumption goals.

In this situation it should be noted that any reduction in the total growth rate requires a disproportionate reduction in the rates of increase in *per capita* consumption. For example, a 5 per cent rate of growth (only slightly below the regional average of the past two decades) would be consistent with a *per capita* consumption increase of less than 1 per cent per annum, on the average, within each of the three major population groups. Similarly, increases in the total growth rate above the 7 per cent level would make possible more than proportionate increases in the *per capita* consumption figures. This aspect is of considerable importance and is discussed further in a following section.¹

Within the total gross product different elements grow at different rates, of which two may be mentioned here. First, in all sectors modern type production grows more rapidly—on the average at rates somewhat higher than 8 per cent. This follows from the assumption that modern type production accounts for a rising proportion of the whole. But there is substantial growth in traditional type production as well. Even in traditional agriculture production must increase at a rate of about 2 per cent per annum, despite the fact that it is a declining proportion of agricultural production and the agricultural sector itself is a declining proportion of the gross product. Traditional type production increases much more rapidly in the industrial and services sectors.

The other element which should be mentioned here is investment. Investment is initially about 17 per cent of the gross product and this proportion rises to 23 per cent at the end of the century—even though there is no increase in the growth rate. That is, the investment of 17 per cent of the gross product is sufficient to produce a production increase of 7 per cent at the end of the 1960s, but 23 per cent is required in the year 2000 to produce the same percentage increase. This is despite fairly optimistic assumptions about capital requirements: within the modern and traditional areas, respectively, of each sector the amount of investment required per unit of output is assumed to remain unchanged. That is, it is assumed that the investment required in the year 2000 for a then modern plant capable of producing 1000 units of output will be the same as the investment now required

for a modern plant producing that volume of output. It is sometimes expected that investment requirements will increase because technological advance will involve the use of ever more capital (per unit of output). This however need not occur and a different assumption has been used in the model. If investment requirements should increase then the investment coefficient would of course rise even more.

The share of the gross product required for investment does nevertheless rise, and with no corresponding rise in the rate of growth. This is essentially the result of the growing importance of modern type production. For while capital requirements do not increase within the modern area, capital requirements are substantially higher for modern type than for traditional type production. Thus a relative shift of production from the traditional to the modern area within a sector requires more investment, and the investment coefficient as noted rises throughout the period; growth dominated by the increase of modern type production involves increasing investment requirements. The corollary to this is a decline in labour requirements (per unit of output), an aspect discussed further in a later section.

2. Employment

It is at once clear from the basic projection that the major economic problem involved in this type of development is the provision of adequate levels of productive employment, with its closely linked issue of income distribution. Although there is a steady improvement in the employment situation during the 30-year period, the change is not of sufficient magnitude to transform the basic employment structure. Despite the high projected growth rate, the problem of unemployment and/or underemployment remains nearly as serious at the end of the century as it was in 1970.

What happens to employment depends on two central assumptions in the model—the rate of increase in production and the rate of increase in productivity—and as these assumptions are different for different areas of the economy it is necessary to discuss them separately. As will be seen both assumptions are fairly optimistic from the present point of view so that it is not likely that the magnitude of the employment problem is exaggerated by the assumptions used.

The more modern areas of the economy are those where productivity levels, and hence incomes, are the highest and it is employment

¹ See page 55, section (c).

in these areas which is of primary interest. The objective of a development style oriented towards the expansion of modern type production is to incorporate the entire economy into these areas, and so the extent to which they succeed in incorporating the labour force is an important criterion in judging this type of development.

As already noted it is assumed that the relative importance of modern type production rises gradually in each sector and as a result modern type production as a whole increases at a rate in excess of 8 per cent per annum (industry at a higher and services and agriculture at lower rates). The rates of productivity increase assumed are quite moderate in view of this rapid expansion of production and the substantial volume of new plant and equipment it presupposes. The fastest increase is assumed in agriculture where there is most scope for modernization and increasing efficiency: productivity is assumed to rise at 4.6 per cent per annum in the modern agricultural area. In industry the increase in productivity is projected at slightly less than 4 per cent per annum in the more modern area and at 3.4 per cent in the traditional area.² In the more modern part of the services sector productivity is assumed to increase at the rate of 3.4 per cent per annum. Taking into account on the one hand the large gap between initial productivity levels, even in the modern areas, and those already achieved in the industrialized countries,³ and on the other hand the continuing technological advance, productivity could easily increase more rapidly than has been assumed.

Despite these rather favourable assumptions, the more productive areas of the economy do not rapidly absorb the available labour supply. Initially the industrial sector, including both the modern and traditional areas, plus the modern areas of the agricultural and services sectors account for about 37 per cent of the

² The traditional part of the industrial sector is considered here as productivity levels are much higher than those of traditional type activities in other sectors and are similar to those of the modern agricultural area. Since the aim is to determine the amount of employment in areas with fairly high productivity levels, traditional type industry is included here along with modern activities in the different sectors.

³ What is referred to as the more modern area is a broad concept and includes much more than enterprises using only the latest technology. For this more modern area as a whole the initial level of productivity is only about one third the 1970 economy-wide average for industrialized countries such as France or West Germany. The potential scope for modernization and increases in productivity is therefore very great.

labour force. Employment increases fairly rapidly—at about 4 per cent per annum in the modern areas as a whole and at about 2 per cent in traditional type industry—but with the labour force itself expanding rapidly this is not enough to basically change the employment structure. At the end of the century the more productive areas might absorb up to 45 per cent of the labour force; the figure varies slightly depending upon the sectoral structure of the economy projected for the year 2000. A further 10 per cent are government employees. But after 30 years of rapid growth about 45 per cent of the labour force is still either unemployed or occupied in traditional type agriculture or services, at low productivity levels.

The extent to which employment increases in the traditional type agriculture and services areas again depends on the assumptions made regarding productivity, but here the situation is fundamentally different from that in the more modern areas. In the latter it is assumed that the basic orientation is towards the use of modern techniques, so that existing technology and rates of technological advance in the industrialized countries are a major consideration. But in the traditional areas productivity levels are far below those even in the more modern areas within the country, so that other orientations and determinants must be assumed. It could of course be assumed that rapid increases in productivity occur to bring the level up to or close to that of the more modern areas. The result would be to generate very large volumes of open unemployment. A more realistic assumption is that the traditional agricultural and services areas absorb those who are unable to obtain employment in the more modern areas, and that productivity trends depend basically on how many have to be so absorbed. This is the assumption used in the basic projection.

At the beginning of the period about 53 per cent of the labour force is either unemployed or engaged in traditional agriculture or services, and this proportion declines to perhaps 45 per cent at the end of the century. But in absolute terms the size of this under-privileged group rises steadily, doubling in the course of 30 years. The rate of productivity increase in the traditional type agricultural and services areas has been set so that, given the increase in production, the bulk of this increase is absorbed and there is no sharp rise in open unemployment. Productivity in these areas has therefore been assumed to increase at about

2 per cent per annum (somewhat higher in agriculture and lower in services). While sharp increases in open unemployment are avoided this means that the gap between productivity levels, and hence earned incomes, in these areas on the one hand and in the more modern areas on the other is steadily increasing. By the end of the century productivity levels in traditional type agriculture and services are only around one quarter of the national average, and are of course an even smaller fraction of the levels in the modern areas alone.

The implications of this situation for the distribution of income are dealt with somewhat more fully in the following section. Here the important point to stress is only that, with rather favourable assumptions, the basic projection shows no fundamental improvements in the employment problem: after 30 years of rapid growth about 45 per cent of the labour force is still engaged in activities with very low productivity levels, or is unemployed.

It should be recalled that the model distinguishes only two levels of technology: a more modern area and a more traditional area. In reality of course there is a more or less continuous range from the most modern installations down to subsistence level activities, and any division must be to a degree arbitrary. Thus, just as the more modern area includes much more than only those enterprises using the latest techniques (as was noted above its average productivity is far below the level of the more advanced industrial countries), so the traditional area includes more than just subsistence level activities.

It is of considerable interest to investigate further the implications of defining more narrowly both ends of the technological scale—the modern and the subsistence type activities—and a revision of the model now under way will specify three technological levels, and this will be an important aspect of future work. Meanwhile it is possible to estimate the approximate magnitude of this problem by re-defining the two technological levels now used: the higher to include both modern and intermediate type techniques, and the lower, only in the agricultural and services sectors, restricted to subsistence and near subsistence type activities.

At the beginning of the model about 40 per cent of the labour force is estimated to be either unemployed or engaged in subsistence type agriculture or services, and after 30 years of rapid growth about one third of the labour

force is still in one or the other of these categories. Further, the productivity level of this more restricted group is only 10-15 per cent of the national average at the end of the century. Although the relative importance of the group declines somewhat there is again no fundamental change in the basic situation: in absolute terms this segment of the population increases steadily at around 2 per cent per annum and nearly doubles in size over the 30 year period. There is, however, a major shift in composition. At the beginning of the period the great bulk of this group is in the agricultural sector, but even with the relatively moderate migration assumed most of it would be urban, engaged in subsistence type service activities, by the end of the century. These figures can be regarded as only very approximate, but they do indicate a probable order of magnitude for what may be the major social problem faced by a growth centred on the expansion of modern type production. It is hoped to be able to illuminate this area more fully in the course of future work.

3. *The distribution of income*

The insight into the distribution of income which can be obtained from the model follow directly from the employment structure and its evolution, discussed in the preceding section. As noted, there is a large segment of the population occupied in activities with very low productivity levels, and this is one of the basic problems involved in bringing about a better distribution of primary income—that is, income received from participation in the production process.

It is useful to specify three broad groups to illustrate the type of income distribution which prevails. At the lowest level there is a very large group, at the beginning of the period rather more than half of all income recipients, and whose incomes are limited by the low productivity of their occupations. The bulk of this group is in agriculture, mostly non-skilled or own-account workers in traditional type agriculture, but also a large segment of non-skilled workers in the more modern area of agriculture. Incomes of those in traditional agriculture are limited by low productivity, while non-skilled wages in more modern agriculture do not rise greatly above this level because of the close exposure to the pressures of the traditional area. Finally, about one fifth of this low income group it made up of non-skilled or own-account workers engaged in traditional type services in the cities, and incomes of this

segment too are limited by the low productivity of these activities—although incomes here are estimated to be higher than those of the low income agriculture workers.

The second, the broad middle group comprising somewhat more than one third of all income recipients, is urban, composed of non-skilled and semi-skilled workers, small-scale artisans and the like, in both the modern and traditional areas of industry and in the more modern area of the services sector. Here incomes are considerably higher than in the low income group: productivity levels are much higher and it is often the case that even wage incomes are protected to some extent from the pressures of excess labour in the low productivity areas.

Finally, there is the high income group, composed of the more highly skilled wage-earners, professionals, entrepreneurs, etc. in all sectors. These account for about 10 per cent of all income recipients at the beginning of the projection.

The initial distribution of income among these groups is highly unequal. With the average income of the low income group = 1, the relative average incomes are approximately as follows:

High income group	16
Middle group	3
Low income group	1

In terms of shares, the top group (10 per cent of the total) receives about half of total income, the middle group about one third, and the low income group only about 15 per cent.

What occurs during the 30 years of the basic projection depends on the assumptions made regarding rates of productivity increase and on what happens to relative shares, but with reasonable assumptions the situation is similar to that already analysed with respect to the problem of employment: there is some improvement, but the basic imbalance remains. By the end of the century there has been some upward shift in the relative composition of the labour force: the low income group declines to less than half of the total, the middle group is marginally larger, and the high income group is considerably larger, accounting for about one sixth of all income recipients. This upward shift of course reflects the growing importance of the more modern areas and the increased use of more highly qualified labour. Relative average incomes, again with the average income of the low income group = 1 would be approximately as follows:

High income group	13
Middle group	3
Low income group	1

Despite the improvement, relative incomes remain highly unequal and close to half the labour force remains in the bottom group at a very low level.

An important aspect to stress is that primary incomes of the low income group are determined almost entirely by the productivity levels of the traditional type areas of agriculture and services. Many of these are own-account workers and their income is a combination of both wage and "profit" income; and for the group as a whole incomes include the great bulk of the available value added. The amounts which accrue as profits to members of other income groups, or represent tax payments (all incomes are calculated net of taxes in the model) are a small proportion of the total in these areas. There is therefore little scope for incomes to rise by assuming an increase in the share of the total available; incomes of this low income group rise only to the extent that productivity increases.

As explained in the preceding section, productivity rises relatively slowly in these areas and the increase in incomes is thus limited. In absolute terms the average income nearly triples over the 30-year period, and at the end of the century reaches the original 1970 level of the middle group; in relative terms the position vis-à-vis the middle group remains unchanged. From a narrower point of view the situation is less favourable. During the 30 years of the projection there is an important shift in the composition of the low income group: the relative importance of agricultural workers declines while those engaged in traditional type services increases substantially. As the average income in traditional type services is higher than in traditional agriculture, this shift alone causes the over-all average income to rise and this accounts for a major part of the tripling of that average during the 30 years of the projection. The average income in traditional type services alone increases only by about two thirds over the period, and so in relative terms the gap between this group and the middle group (both urban) widens considerably.

While incomes of the low income group depend almost entirely on productivity levels, incomes of the middle and high income groups depend also, and to a major extent, on how

the total is distributed. These latter two groups are for the most part urban, and the value added in the urban sectors is divided between them. The middle group is non-skilled while the top group represents skilled wage-earners, professionals, entrepreneurs, etc. and is assumed to receive distributed profits of enterprises. The distribution between these two groups therefore depends on the relative share of profits versus salary income, and also on the relation between skilled and non-skilled salaries.

The basic projection assumes that salaries and profits each remain a constant percentage of the value added in each area, and that the relation between skilled and non-skilled salaries does not change. The result is that the average income of the top group is a somewhat smaller multiple of the others at the end of the century. The reason for this is only that profits accrue to the high income group as a whole, and as this group increases considerably in size—from 10 per cent to 16 per cent of the total—the proportion of profits available *per capita* declines, and so the relative average income of the group declines also. Nothing is said about the distribution within this top 16 per cent, which could be itself very unequal and thus maintain the original degree of inequality.

Other assumptions could of course be made about the trend of relative shares between profits and salary income, but to be realistic these would more likely worsen further rather than improve the distribution. With the assumption used of constant shares, non-skilled wages in the higher productivity areas rise at a rate of about 3.5 per cent per annum. This is a fairly rapid increase in the face of the fact that throughout the period around half of the labour force continues in traditional type activities, at much lower income levels, and must be presumed to exert some pressure on wage rates of non-skilled workers in other areas. Should this pressure be effective wage rates of incorporated non-skilled workers would increase more slowly, their share of the total would decline in favour of a corresponding increase in profits, and there would be a shift of income from the middle to the high income group. Only if the pressure from the large low income group is effectively sealed off would it seem reasonable to assume that wages of the middle group might rise faster than 3.5 per cent per annum, thus reducing the profit share and shifting income away from the high income group.

But a major point to keep in mind is that this possibility of a changing profit share can in any case only affect the distribution between the top and middle groups. Those in the large low income group can only improve their position via a substantial increase in productivity levels, or by the elimination of the traditional type activities and their incorporation in a more productive area.

4. *External sector*

In the purely quantitative terms of the model the external sector is the major bottleneck to a rapid growth centred around the expansion of modern type production. The pressure for imports generated by the continuing introduction of new type products and processes is likely to be great, and to require a rapid and steady increase in foreign exchange earnings if it is to be met.

Here too the results depend upon the assumptions used, but it is clear that rather rigid requirements must be met if a balance is to be maintained. The central necessity is to keep the trade balance in approximate equilibrium. If this can be done the over-all balance is not likely to be a serious problem, but if the trade balance turns negative there is a cumulative impact and the over-all balance of payments progressively deteriorates.

The difficulties involved in maintaining the trade balance during a period of rapid growth are illustrated by the basic projection, where the principal assumptions are: (1) exports increase at the same rate as the gross product, (2) there is no increase in the individual import coefficients, and (3) the terms of trade remain constant. Any one of these assumptions could prove optimistic, and a less favourable assumption would lead to a rapid deterioration of the balance of payments.

First, the projected rate of increase in exports of 7 per cent per annum is very high: it means that the volume of exports is multiplied by nearly 8 times over the 30 years of the projection. Even for shorter periods of time rates of increase of this magnitude are not common. For example, the average rate for the region as a whole for the 10-year period 1960-1970 was 4.7 per cent per annum, and while a number of the small countries did achieve a rate of 7 per cent or better none of the large or medium-sized countries was able to expand the volume of exports at that rate. A further factor to be taken into account is that the bulk of exports in 1970 is provided

by traditional primary products and these cannot be expected to increase at such a rapid rate except in exceptional circumstances. New exports, especially industrial products, must therefore expand at considerably higher rates and in their turn come to comprise the major part of total exports by the end of the century.

The import coefficients—those applied to spending on consumption, raw materials and intermediate products, and capital goods—are held constant at reasonably low levels. When the projection begins, import of finished consumer goods are only slightly over 1 per cent of total personal consumption, intermediate imports are about 7 per cent of total inputs, and capital goods imports are less than 15 per cent of total investment spending.

Even with the individual import coefficients held constant there is a gradual increase in the relative importance of imports because of the changing structure of the economy. There is a general increase in the relative importance of imports because of the rising weight of the industrial sector—investment coefficients are higher in industry and imports are a somewhat larger proportion of intermediate inputs. The general increase in the relative importance of modern type production also requires greater imports of capital goods—total investment requirements are higher in modern than in traditional type activities, and imports are a larger proportion of the total. Finally, it is primarily the high income group which spends on imported consumer goods and as the size of this group increases, along with its share of total income, this too results in some rise in imports. The total result of these shifts in the structure of the economy is that imports rise from not quite 9 per cent of the gross product in 1970 to 10.5 per cent at the end of the 30-year period, even with the individual import coefficients held constant. This means that in the basic projection there is a moderate but steady deterioration in the trade balance: when the model begins there is a small surplus of export income over import costs, but by the end of the century import costs are more than 10 per cent higher than export earnings.

This trade balance is the basic determinant of the over-all balance-of-payments situation. There is already an important external debt, with its consequent interest and amortization costs, at the beginning of the period and as the trade balance turns negative, and is financed by further borrowing, this grows

steadily. Leaving aside other capital flows for the moment, this process, if uninterrupted, means that these interest and amortization costs, even with very favourable assumptions regarding interest rates and repayment conditions, themselves come to represent nearly 10 per cent of export earnings by the end of the century. That is, the total deficit directly attributable to the growing trade gap is somewhat more than 20 per cent of total export earnings.

An imbalance of this magnitude is of course not likely to be sustainable for a prolonged period, and would have to be corrected by one or a combination of (1) exports increasing at an even more rapid rate, (2) a reduction of one or more of the import coefficients, or (3) an improvement in the terms of trade. Failing this the only alternative would be to reduce the high growth rate and thus import requirements. It needs to be kept in mind in this respect that the assumptions used are fairly moderate and that if, for example, there should be a deterioration in the terms of trade the imbalance would be even greater than that indicated.

Assumptions about private capital inflows in the form of direct investment do not basically alter the situation. Projecting a rapid increase in the importance of foreign investment—its share of total capital rising by half—does result in a substantial capital inflow. But about half this net inflow, again with fairly favourable assumptions, is offset by the remittances of profits and the difference is not enough to offset the trade imbalance. Further, this is the case with a projection of steadily rising capital inflows. If for any reason the inflow is interrupted—a not unusual situation in the real world—while the charge of remittances of profits remains, this becomes a further aggravating factor in the overall balance.

5. *Government*

The basic projection indicates that the financing of the public sector may not be a major problem in this type of development: both the high growth rate and the concentration on modern type production contribute to a rapid increase in government receipts and permit a substantial expansion of government expenditures without undue financial strain.

The principal assumption on the receipts side is that within each area of economic activity an unchanging proportion of the value added accrues to the Government in some form

of tax payment (no distinction is presently made between different types of taxes). As the gross product increases rapidly, so does government revenue. Further, as government receipts from the more modern area are greater in relative terms than those from more traditional type activities, the rising share of modern production adds to the government revenue total. Over the 30-year period government receipts rise from about 17 per cent to about 18.5 per cent of the gross product as a result of the changing structure of the economy—with no increase in tax rates in any individual area.

Current expenditures are projected at a fairly rapid rate of increase—in particular it will be recalled that there is a very large expansion of educational services—but there is no difficulty in financing these expenditures. There is a steady and even slightly rising surplus on current account throughout the period amounting to around 25 per cent of total receipts. This is an important point to note from the projection. There are major elements of

current public spending which do not necessarily increase in line with the increase in the gross product, so that the rate of growth of the economy, via its impact on revenues, will be a central factor in determining the government financial position: slow growth rates will mean lagging revenues and recurrent financial crises, while a high rate of growth could itself largely resolve these difficulties.

Capital spending, particularly on infrastructure, is projected to rise very rapidly, the total at the end of the 30-year period being more than 11 times the initial level. Capital spending by the public sector is a rising proportion of total investment spending and, as has been noted in an earlier section, investment spending itself is a rising proportion of the gross product. Despite this large increase in projected investment spending the over-all government budget does not become seriously unbalanced. There is a small total deficit in 1970, and this increases gradually throughout the period of the projection, but after 30 years it is still less than 10 per cent of current receipts.

III. THE PROJECTED RATES OF INCREASE AND APPRECIATION OF THE MAGNITUDES INVOLVED

One of the most important aspects of the basic projection, and at the same time one which is easily overlooked in describing the general results, is the size of the rates of increase assumed and the magnitude of the changes which would occur over the 30-year period. It is simple enough, for example, to talk of 7 per cent per annum economic growth rates, but it is more difficult to convey an appreciation of the enormous changes implied by such rates. And it is essential that these magnitudes be clearly understood—they are of the essence of the process of socio-economic-political change involved in a process of rapid economic growth.

It is first useful to emphasize that the rates of increase mentioned in the preceding sections are average rates which must be maintained throughout the entire 30-year period; and that even a temporary period of slower increase seriously affects the end results. Two examples will serve to illustrate this point. Suppose the gross product does increase for most of the period at 7 per cent but that during the 5 years 1975-1980 difficulties are encountered and the rate of growth slows temporarily to 5 per cent, still a respectable rate

by historic standards. The result would be that from 1980 on the values of many variables would be nearly 10 per cent less than those shown in the basic projection: in the year 2000 the gross product, *per capita* incomes, government receipts, etc. would be nearly 10 per cent less than the values recorded. Further, the decline would in several instances have a much greater impact through falling in its entirety on an important balance. For example, the 10 per cent decline in government receipts changes a small deficit into a large one and means a major deterioration in the government financial position. Probably the most serious impact of this sort is in the area of employment, where the reduction in total employment means that much of the already limited improvement in the employment situation would be lost: employment in the more productive areas of the economy would rise only to around 40 per cent of the labour force at the end of the century (from an initial level of 37 per cent).

As a second example, suppose a similar lapse in the rate of growth of exports: for the 5-year period 1975-1980 temporary difficulties arise and exports increase at 5 per cent, still

a relatively high level. This again illustrates the impact of a decline falling upon an important balance. Whereas in the basic projection import costs are rather more than 10 per cent higher than export income at the end of the century, here they would be more than 20 per cent higher than export earnings. And since this large increase in the trade deficit begins in the late 1970s, larger borrowing would be required from that point to finance the deficit. Taking this into account, and adding the increased interest and amortization costs implied, the total deficit on this score would amount to close to half of total export income by the end of the century. This is a much more serious situation than the corresponding deficit of somewhat more than 20 per cent of export earnings calculated in the basic projection.

It is therefore important to emphasize that the rates of increase noted in the discussion of the basic projection are average rates and that even a temporary decline from these levels can seriously affect the end results.

But it is even more important to appreciate the magnitude of the changes implied by the rates of increase projected for the principal variables. Take first the population. At rates of increase which begin at 2.9 per cent per annum and decline slowly to 2.7 per cent after 1990, the total population is multiplied by nearly 2.3 times over a 30-year period. Where in 1970 there was one person there will be nearly $2\frac{1}{3}$ by the end of the century. Even with low death rates the population then will be largely "new": those already born in 1970 will comprise only about 30 per cent of the end of the century population, about 70 per cent of that population being still unborn in 1970. The changes in the urban area are greater. Even with rather moderate assumptions about migration the urban population is multiplied 3.7 times over the 30-year period, and of the end of the century urban populace only 1 in 5 was a city dweller in 1970—the remaining 4 were either unborn or will have migrated from the rural areas.

The changes in the economic aggregates are very much greater. The gross product indicates the total size of the economy and a 7 per cent rate of increase means that after 30 years the economy is more than $7\frac{1}{2}$ times as large as it was at the beginning of the projection. This would mean, for example, that if the projection were applied to Brazil or to Mexico either economy would around the end of the

century reach a size approximately double the 1970 gross product of all the countries of Latin America combined.

But it is the increase in relation to the starting point in the country itself that is most significant. The economy of the year 2000 represented in the basic projection is an almost entirely new construction. Most of the plant and equipment which existed in 1970 will have been replaced by the end of the century and will therefore be new, but the economy would be "new" in a more fundamental sense: over 85 per cent of the production would represent expansion, production which did not exist and had no counterpart in 1970. The 1970 economy is only a small fraction of the economy of the year 2000 and would represent only a minor enclave within the new structure which would arise by the latter date.

Similar comments would apply to several of the other major economic variables. Personal consumption and exports, for example, increase at rates similar to that of the gross product and so the magnitudes of the changes involved are the same. But there are two central areas where the growth is even more rapid and the magnitudes thus even larger: industrial production and investment. The volume of industrial production at the end of the 30-year projection is nearly 9 times as large as at the beginning, while the volume of investment is multiplied by more than 9 times. The proportion of end of the century industrial production and investment which would be "new", that is which had no counterpart in 1970, would therefore approach 90 per cent. The magnitude of the increase in investment can perhaps be better appreciated by relating it to the stock of capital in existence at the beginning of the projection: with the level of investment reached at the end of the century it would require only about a year and a half to invest an amount equal to the entire capital stock of the country in 1970. That is, the equivalent of the entire 1970 economy could be recreated in only about a year and a half. This again illustrates the relative insignificance the existing economic structure would have within the economy projected for the year 2000.

There are numerous aspects of this situation which could with great value be investigated, but only two general points can be mentioned here. First, the enormous changes which would occur over a period of 30 years cannot be too strongly emphasized. Thirty years is a brief

period of time in cultural-historical terms, and profound changes in living patterns, social relations, etc. are implied in the impersonal numbers of the basic projection. Unless much more thought is given to what these changes are likely to be and how they might be effected as smoothly as possible, they could easily give rise to severe individual, social and political difficulties. Rapid economic growth is sometimes regarded as the solvent for dissolving many if not all problems, but while it can indeed contribute to the solution of many difficulties, the very achievement of rapid growth will itself require major adjustments in the structure of society. If these are not foreseen and measures taken to effect them as smoothly as possible, rapid economic growth could turn out to create problems as serious as those it resolves.

The second general point which needs to be emphasized is the extent to which the economy at the end of the century depends on what happens during the course of the projection, and how small within the total is the economy which existed in 1970. A major consideration which follows from this is that if rapid growth is envisioned, longer-term planning must concern itself essentially with those population groups and those production facilities and incomes still to be created; the existing structure, despite the importance it must appear to have at the moment, loses its dominance surprisingly soon within a rapidly expanding total.

It is of course necessary to be able to control the growth process to the extent desired, and achieving this control may require major changes in existing structures. But once the desired control is achieved almost exclusive attention can be given to the process of expansion as it is the course of this expansion which will determine the structure which will exist in the coming years. Take, for example, the controversial issue of the importance of the public sector in the area of industrial production. Once the growth process is controlled this share can be adjusted almost at will even without interference with existing production facilities—industrial production more than doubles every 10 years, giving wide scope for changing the proportions of public and private control.

Changes of many kinds can probably be brought about with considerably less conflict via controlling the process of expansion than

if the changes have to be made by altering already existing relationships, and this is an important advantage which the achievement of rapid growth offers. The reverse side of the coin is also important: no matter how existing relationships are changed the effect can be easily negated if the growth process cannot be controlled.

Only the enormous changes which occur over the entire 30-year period have been stressed above. It is this longer-term aspect which is most commonly overlooked, and as even 30 years is a brief period in socio-historical terms it is of great importance that measures be considered to make the transition as smooth as possible. But most political and planning horizons are not nearly so long, and so it also needs to be stressed that very substantial changes are involved over shorter time intervals as well.

In only five years time, with the growth projected in the basic experiment, the urban population expands by more than one fifth, with the implications this has for various types of infrastructure requirements; the gross product increases 40 per cent; industrial production and the volume of fixed investment are 45 per cent higher; imports rise by nearly 45 per cent with consequent requirements for exchange availabilities; and the government budget is operating well over 40 per cent above its initial level.

Over a period of 15 years all of these changes would of course be much greater. The urban population would expand by nearly three quarters; the gross product would be more than $2\frac{3}{4}$ times as large; industrial production, the volume of fixed investment and the level of imports would each approximately triple; and the government budget would be only slightly less than triple its initial level.

The high rates of growth projected result in very rapid changes in all areas. As these rates are cumulative the resultant changes are enormous over longer periods of time and so illustrate more strikingly the point being made. But it must be kept in mind that these high rates operate continuously, and once a growth process of this magnitude is set in motion very substantial changes occur, and need to be prepared for, within surprisingly short periods of time.

IV. THE PROBLEM OF EMPLOYMENT

The issue which clearly stands out as the major unresolved problem in the basic projection is the limited capacity for employment in the more productive areas, and the closely linked implications for the distribution of income. This is therefore the first issue which must be analysed, in terms of possible variations in the basic projection which might improve this situation, and the specification of what would be required to bring about "full employment" of the labour force.

It will be recalled that the problem, as stated in the basic projection, is not so much open unemployment, but rather that a major proportion of the labour force is unable to obtain employment in the more productive areas and so is employed in traditional type agriculture or service activities at very low levels of productivity and income. The solution is therefore either to expand employment in the more productive areas and thus shift workers out of the traditional areas altogether, or to increase production and productivity levels within the traditional areas so as to reduce the disadvantage vis-à-vis the modern areas. The ultimate objective in either case would be a more uniform distribution of productivity levels, and incomes, throughout the economy; but the paths towards the objective would be very different, and would in effect imply different styles of development.

The different variants of the basic projection which have been investigated cover three general possibilities. First, if growth is to continue to be of the sort postulated in the basic projection—based primarily on the expansion of modern type production, with both products and production methods following the patterns established in the advanced industrial countries—then the problem can only be resolved via higher growth rates, thereby absorbing all of the labour force in the more modern areas.⁴ Secondly, the growth could be based primarily on an expansion of the more modern areas, but with a limited increase in productivity levels in these areas, thus absorbing more labour with

⁴ That is, it can only be resolved in this way within the 30-year period of the projections. Over a longer time period it could eventually be resolved with the growth rate shown in the basic projection, especially if the rate of population increase declined further and, after a 15 to 20 year lag, the less rapid growth of the labour force itself began to reduce the numbers which had to be absorbed. This aspect will be investigated further in future studies.

the same rate of increase of production. The problem here too would be resolved by absorbing the entire labour force in the more modern areas, but the products and production methods in these areas would progressively depart from the patterns prevailing in the advanced industrial countries. Thirdly, there could be a relatively small expansion of the more modern areas and the growth process could instead concentrate on the more traditional areas, the aim being to increase production and productivity levels and thus progressively reduce the disparity with the modern sector. Here there would be no shift of labour out of the traditional areas and the economy would eventually be integrated by raising this area to the level of the more modern area. Here too of course production patterns in the advanced industrial countries would not be closely followed.

Both the second and third variants listed would imply a development style markedly different from that which has been almost universally followed in the region during the post-war period of industrial growth. They are presented here only as logical possible alternatives for the solution of the employment problem, and no general analysis of the difficulties which would be involved in introducing a style of this sort is attempted. It may be noted however that these different styles do not readily fall into the familiar alternatives of State-controlled or private-enterprise-oriented growth. While private-enterprise-based growth is commonly associated with the first variant, and might be more difficult to adapt to the other two variants listed, a socialist type economy must also face the employment problem, and has also to date been primarily associated with the first of the variants listed.

In the following, each of the three possibilities is discussed in more detail and what would have to occur if the employment problem is to be resolved by the end of the century is specified.

1. *More rapid growth of the more modern areas*

If there is to be a continued concentration on the expansion of modern type production, the employment problem can only be resolved by the end of the century if growth rates substantially higher even than those of the basic projection are achieved.

(a) *Increased government spending*

Prior to analysing the requirements of a general increase in the economy, it is of some interest to note the possible impact of a commonly proposed solution: an expansion of government activity. An increase in general government spending, probably through an increase in social programmes, plus a public works programme would not only be useful in itself but would also provide considerable employment. An experiment was therefore undertaken to estimate how important additional employment of this sort might be within the context of the situation shown in the basic projection. It was assumed (1) that general government employment increased much more rapidly (about 4 per cent per annum as against an increase of 3 per cent per annum in the basic projection) and (2) that spending on infrastructure investment was throughout the period about one third more than the already large figures of the basic projection.

The result would be an important increase in productive employment: in the year 2000 a further 3 per cent of the labour force would be government employees or employed in more modern type activities as a direct result of the expanded public works programme. But while employment for 3 per cent of the labour force might mean a major improvement in terms of reducing open unemployment, particularly where this is concentrated in one region of the country or in the urban areas, it does not fundamentally change the problem represented in the basic projection. With rather more than 45 per cent of the labour force either unemployed or engaged in traditional type agricultural or service activities, the 3 per cent figure represents only a marginal improvement.

The effect on the government budget is much more profound. Whereas there is no serious financial difficulty in the basic projection, in this experiment, with no increase in tax rates, even the current account is in deficit by the end of the century and the over-all deficit rises to close to half of total income. To maintain an approximate balance would require that tax rates be increased by about one fourth from quite early in the period.

The conclusion from this experiment must be that an expansion of government activity alone cannot be expected to make a major impact on the employment problem presented in the basic experiment. Even a rather marginal improvement would produce a financial crisis and/or require a substantial increase in the

relative importance of the public sector in the economy.

(b) *Higher rates of general economic growth*

The solution of the employment problem would therefore have to involve a generally faster rate of growth for the entire economy, and an experiment designed to specify the rate required is the next which must be analysed. As the objective is to absorb the entire labour force in the higher productivity areas, the basic assumption in this experiment is that in the agricultural and services sectors the share of the more modern areas in total production gradually rises to 100 per cent (that is, traditional type production is gradually eliminated in these sectors). The economy is then projected to expand at a rate fast enough to absorb the labour thus released plus all unemployment by the end of the century. General government activity and infrastructure investment are projected at the higher levels of the experiment just described above.

The rate of expansion required is very high: the gross product would have to increase at an average rate of approximately 9 per cent per annum. Production in the more modern areas would have to increase even faster to absorb the decline in traditional type activities: in the industrial sector at nearly 11 per cent per annum (despite the fact that the more traditional area would still account for 30 per cent of industrial production at the end of the period); in services at well over 10 per cent per annum; and even in the agricultural sector, whose share of the gross product declines by one third, modern type production would have to increase 9 per cent per annum. Much more investment is of course required to achieve these increases and the level of investment is always sharply higher and rises to 28 per cent of the gross product at the end of the 30 year period.

All of the earlier comments about the importance of appreciating the magnitude of the changes implied in the basic projection apply here with much greater force. The gross product is multiplied by nearly 13 times during the 30 years of the projection (less than 8 times in the basic projection) so that the 1970 economy is a very small fraction of the economy to be created. At the end of the century the gross product would be some 70 per cent larger even than the figure reached in the basic projection. More modern type production in the industrial and service sectors would be multiplied

on the average somewhat more than 20 times, and even in the agricultural sector by more than 13 times. Investment at the end of the century would be more than double the level reached in the basic projection; and the entire 1970 stock of capital would represent only about 9 months' investment at that level. While the rate of population growth remains unchanged, the elimination of low income agricultural activities and the absorption of this group in more productive areas involves a much more substantial migration to the urban areas and at the end of the century the rural population would have declined slightly from the 1970 level even in absolute terms, and would represent less than 20 per cent of the total population. The projection of growth rates of this magnitude would therefore involve much greater changes even than those already commented on in the basic projection.

The impact of the greater growth in at least two areas needs to be specifically noted. First, the higher rates of government spending projected in the preceding experiment resulted there in a major deterioration in the government financial position. These higher rates are maintained here, but the faster growth of the rest of the economy would increase government receipts (assuming no change in tax rates) so sharply that there would be no financial difficulty. Receipts rise more rapidly than current expenditures so there is a steady increase in the current account surplus: receipts are about 40 per cent greater than current expenditure at the beginning of the projection and rise to considerably more than double such expenditures after 30 years. This is more than sufficient to finance even the large volume of capital expenditures and there is a substantial and rising over-all surplus.

The sharp increase in government receipts in part reflects simply the rapidly rising production and income levels, but it also results in part from the growing dominance of more modern type production. Government income is closely linked to the modern areas, and as the shift to this type of production occurs governments receipts rise even as a proportion of the gross product. It is useful to bear in mind that this link gives Governments everywhere a vested interest in the promotion of modern type production.

The second impact to note—on the balance of payments—is by contrast unfavourable. Import volumes rise rapidly, both because of the higher growth rate and because of the increas-

ing dominance of the more modern areas, where import coefficients are higher, and at the end of the century total imports are double the level reached in the basic projection. With exports at the level of the basic projection the trade deficit rapidly assumes unmanageable proportions, and this experiment illustrates the extent to which the balance-of-payments situation looms as an obstacle to very high growth rates. If it is assumed that the deficit is financed by borrowing, the external debt grows very rapidly and absurd situations are soon postulated: by the early 1990s all export earnings would be required simply to service the debt and nothing would be left to meet import requirements. In reality of course the growth rate would have to be reduced in such circumstances. As the balance of payments is likely to be the major bottle-neck to the achievement of high growth rates this situation is analysed separately in more detail in a later section.

To return to the central point of this experiment, the problem of employment, it is worth elaborating somewhat the sense in which this would be resolved. The low productivity (and income) areas in the agricultural and services sectors would be eliminated, and the large proportion of the labour force engaged in these activities, or unemployed, would be absorbed in the more productive areas of the economy. But it should not be supposed that, even with the very high growth rates projected, all production is fully modern at the end of the century. First, 30 per cent of industrial production would still come from the more traditional area, where productivity, although well above the very low levels of traditional type agriculture and services, is still far below that in the modern area. About one quarter of the labour force would be engaged in more traditional type industrial production at the end of the century. Secondly, the productivity increases in the more modern areas have been projected at the same moderate rates used in the basic projection so that even these areas do not reach impressively high productivity levels.

For the economy as a whole the average productivity at the end of the century would be similar to the level already reached in 1970 in industrial economies such as those of France or West Germany; and would likely be only about half the level which would then prevail in these countries. There would still therefore be a great deal of scope for raising productivity levels by introducing modern methods. If it

had been assumed that this had occurred—that the larger investment volumes in this experiment had resulted in greater modernization and higher average productivity levels—then rates of growth even higher than those noted would be required to absorb all of the labour force in more productive areas by the end of the century. This is the qualification which must be placed on the resolution of the employment problem in this experiment: there would still be a wide range of productivity levels throughout the different sectors of the economy, and large scale modernization could still give rise to major unemployment—even after 30 years of extremely rapid economic expansion.

It has been repeatedly noted that the employment problem is closely linked to the distribution of income, and the resolution of this problem, in the sense described above, would bring about a major improvement in the income distribution structure as well. In the description of the basic projection three large income groups were distinguished—a low income group engaged in traditional type agriculture and services, a middle income, and a high income group—and a major factor in the inequality was the low level of income and productivity of the large bottom group. With the resolution of the employment problem as described in the present experiment, this bottom group disappears—it is absorbed in the middle and top groups—and this aspect of the inequality is eliminated. At the end of the century there would be only two major groups, the top group with somewhat more than 20 per cent of the population and the middle group with the rest, and the disparity in average incomes would be of the order of 5 to 1 in favour of the top group.

This degree of inequality would still be somewhat greater than that which currently prevails in most of the Western advanced industrial countries, but it would represent a major improvement over the situation shown in the basic projection. Too much cannot be made of this finding: the division is only between two major groups and there might be great concentration within the top group. Further, the division between these two groups depends upon the assumption made with respect to the trend of relative shares (they have here been assumed to remain constant).

Nevertheless, it is clear that the incorporation of the entire labour force into the more productive areas of the economy would bring with it a major improvement in the distribution

of income. The really low income group would be eliminated, and in addition the pressure which the existence of such a group must exercise on non-skilled wages in the more productive areas would disappear. There would still remain limits to the extent to which wages might rise since, as noted above, there would remain considerable scope for modernization and any large increase in wages would probably lead to labour-saving innovation. But the distribution of income between the two large groups would depend in important degree on the division of the total between profits and wages, and a major part of the pressure holding the labour share low would have been removed; the large poor group where incomes were held down by low productivity levels would have been eliminated. These and other aspects of the distribution of income require further study and it is expected that this will be an important part of the future work programme.

The conclusion to be drawn from this experiment is not overly optimistic. Given the general conditions which prevail at the beginning of the projection, a very high rate of growth is required to absorb all the labour force into the more productive areas of the economy by the end of the century. It is unlikely that many economies will be able to expand steadily at an average rate of 9 per cent for a period of 30 years and so a continuing emphasis on the expansion of modern type production is likely to mean that the employment problem, as it is defined here, will continue into the next century in many countries. In the strictly numerical terms of the model the principal obstacle to the achievement of growth rates of this magnitude is the balance of payments situation. Once the employment problem is solved this will bring a major improvement in the distribution of income.

(c) *The qualitative difference of higher growth rates*

The very great changes implied in the growth rates of the basic projection and in those of the experiment just described have already been emphasized, but there remains one aspect of these higher growth rates which must be noted. It in fact requires moderately fast growth simply to maintain the status quo in most of Latin America; only above this rate do improvements begin to be possible; and if the growth rate can be pushed progressively higher other critical points may be passed and solutions to

other problems begin to be possible. An increase in the rate of economic growth in this relatively high range may therefore represent a qualitative type change: a difficulty which previously was not improving much, or was becoming worse, begins to improve and an eventual solution can be foreseen.

There are two factors which require a reasonable rate of growth just to maintain the status quo. First, the population is growing rapidly so that production must increase at least as fast to prevent a fall in the over-all average *per capita* income. But there are also shifts occurring in the population structure, the most important of which is the movement from the rural areas to the cities, and these are shifts from lower to higher income groups. If the average income within each group is to be maintained then the newcomers must be incorporated into the group at the prevailing income levels and this will require a further increase in production to cover the upgrading involved in these population shifts. Some individuals will be better off, but the average income of each major group will only be maintained at a constant level. If the newcomers were not incorporated at the existing income level this would mean that the average of the group, and the income of many individuals within the group, would be driven down, with the social unrest which this would almost certainly produce.

An experiment was therefore designed to determine the growth rate required to maintain the status quo as here defined, and to illustrate the results of such a growth rate. A substantial annual increase in the gross product is required: an average rate of 4.5 per cent throughout the period of the projection. At such a rate there are not likely to be serious balance-of-payments problems as the pressure for imports is much less than that shown in the basic projection. The government financial situation is precarious however. With unchanged tax rates revenues increase rather slowly, and an increase of current expenditures at the rate projected in the basic experiment would lead to a deficit even on current account after only about five years and the deficit would grow steadily and rapidly larger. It would of course be impossible to finance the public investment foreseen in the basic projection. At this rate of growth the employment situation would actually deteriorate further. The proportion of the labour force employed in the more productive areas would decline rather slowly but

steadily, and at the end of the century around two thirds of the labour force would be either unemployed or employed in the low productivity and income areas of traditional type agriculture or service activities.

The first critical level is therefore an economic growth rate of around 4.5 per cent, sufficient only to maintain the status quo in the sense that average incomes of each of the major groups would be held constant. As growth rates rise above this level improvements *per capita* income become possible, and these are more than proportional to the increase in the growth rate itself. For example, in the basic projection the rate of increase in the gross product, at 7 per cent, is only about 2½ percentage points higher than the status quo minimum rate, but this is more than fully reflected in the increase in average incomes: within each of the major population groups the average income rises substantially, at rates ranging around 3 per cent per annum. This would represent a qualitative type change, a movement from a position of stagnation to one where incomes are rising fairly rapidly for all groups.

Other aspects also begin to show the same kind of change. Most important, the employment situation is gradually changed from one of deterioration to one of improvement as the growth rate rises. At the 4.5 per cent income status quo rate it deteriorates, a rate of around 6 per cent is the critical level where the proportion of the labour force engaged in the more modern areas remains approximately constant, and at the 7 per cent rate of the basic projection the situation is slowly improving. The government financial position passes through a similar transition, and at the 7 per cent rate of the basic projection both a large volume of current expenditures and major public investment can be financed without undue difficulty.

If growth rates can be pushed still higher these qualitative type changes continue. At the 9 per cent growth rate projected in the experiment described above the employment problem can be resolved within a 30-year period and a major improvement in the distribution of income occurs; and rapidly rising government receipts provide the financing for further large increases in social spending and public investment.

There is one negative aspect to note: the balance of payments. At the status quo growth rate there is unlikely to be any difficulty, but as the rate rises from that level rising import

requirements are increasingly likely to exert severe pressures on the balance and to bring about a crisis. As has been noted this is a major obstacle to the achievement of higher growth rates. But the important point to emphasize here is that it can sometimes be very important to push what might conventionally be regarded as a satisfactory rate of economic growth even higher, to the range of the very high rates mentioned here. The achievement of such rates could sometimes bring about the solution of a problem which had appeared intractable even at moderately high rates of expansion.

2. *Limited productivity increases in the more modern areas*

The second way in which the employment problem might be resolved would be to adopt production techniques which used more labour than those assumed in the basic projection. As output expanded in the more modern areas productivity would rise less rapidly and a larger proportion of the labour force would be incorporated into these areas at any given rate of growth. An experiment was therefore designed to estimate how fast productivity could increase if the objective is to absorb all the labour force into the more modern areas by the end of the century, and assuming a continuous economic growth at the 7 per cent rate of the basic projection.

Here as in the preceding experiment it is assumed that all production in the agricultural and services sectors is gradually absorbed into the more modern areas; traditional type production in these sectors, with its low level of productivity and income, gradually disappears. Productivity in the more modern areas and in the more traditional areas of the industrial sector is then projected to increase at a rate which would permit the employment of the entire labour force in these areas by the end of the century (apart of course from those employed in the public sector).

Productivity could rise only very slowly if this employment goal is to be met. For these higher productivity areas as a whole productivity could increase only about 60 per cent over the 30-year period, a rate of increase of 1.5 per cent per annum. In view of the great increase in production which would occur over the period of the projection—production in these areas as a whole would be multiplied more than nine times—and the volume of in-

vestment in new facilities required to achieve such an expansion, the increase in productivity is very small and implies a large departure from the production techniques of the advanced industrial countries. Even within the more modern areas productivity at the end of the century would be only around half the economy wide average already reached in 1970 in the more advanced industrial countries of Western Europe (and of course would be a much smaller fraction of the levels likely to prevail in these countries 30 years later).

It is important to note that this slower increase in productivity within the more modern areas does not mean that the average productivity of the economy as a whole is held down; the economy wide level of productivity rises at the same rate as in the basic projection and reaches the same figure at the end of the century. But in the basic projection this total average was the result of adding together two widely different groups, those in the more modern area with its relatively high and rising productivity level, and those in traditional type activities with very low productivity. In the present experiment by contrast, these two groups are gradually integrated at an intermediate level, and the slower increase in productivity within the modern area is offset by the declining importance of the low productivity area.

But the slower increase in productivity in the more modern areas does as noted, mean that these productivity levels would fall further and further behind those of the high income industrial economies, and these areas would cease to be "modern" if this is taken to mean the employment of the latest production techniques in use in those countries. This would mean that for a development of the sort projected here to be feasible it would be necessary to devise new types of technology which used more labour and less capital. It is to be stressed that this would require a major technological effort, with a different orientation than that which has characterized technological advance in the industrial countries—the emphasis would be on increasing efficiency by reducing capital and material costs rather than by saving on labour requirements. It would probably be possible to achieve this only to a limited extent by adopting already known but less modern techniques, that is techniques which have been used but have been replaced by others which are more efficient essentially because they use less labour.

For the most part the required techniques would have to be developed.⁵

This requirement of a major technological effort would probably mean that a solution to the employment problem via the style of development discussed here is likely to be a feasible alternative only for a large economy. As a technology of this sort—modern but relatively labour intensive—is not currently in general use anywhere there would be limited possibilities of borrowing or exchanging technology and so of specializing and relying on developments elsewhere to fill in the gaps. Only a large and relatively self-sufficient economy could hope to support the cost of such a reorientation of the more modern areas and the technological effort implied. If one or more large economies should choose this style of development it would then become more feasible for smaller economies to link themselves to these efforts and choose to follow a similar path.

The effect on the distribution of income of this type of solution to the employment problem would be basically similar to that already described in the preceding experiment. The large group with very low productivity and income levels is absorbed into the two higher groups, and this major element in the

⁵ In discussions of technological change it is often assumed that this has occurred through the introduction of new techniques which use more capital and less labour, per unit of output, and that there is therefore a wide range of alternative techniques available which can be efficiently used, and which would involve the use of more labour. That they are not used is ascribed to the relative prices of capital and labour which prevail, and to various other factors. There are no doubt numerous cases of technological change of this sort. But there is also no doubt that much technological change is of a quite different sort: it introduces a new and "superior" product and/or it makes possible a reduction of both capital and labour costs per unit of output, and may save on material costs as well. The ratio of capital to labour still rises as there is a greater reduction in labour requirements, but the new technique is more efficient than the old in an absolute sense and does not depend on relative prices for its adoption. In cases of this sort the use of a previously existing technique implies either the production of an "inferior" product or would simply be inefficient, requiring the use of more of everything. The assumption in the basic projection is that on the average technological change is of this sort—it is assumed that, within each sector and area the investment required per unit of output remains constant while labour requirements decline (productivity increases). This assumption is consistent with such historical data on capital-output ratios as exists and implies that in general there will not be readily available efficient alternative techniques which use more labour.

inequality would disappear. Less can be said about the distribution between the remaining middle and top groups however. It would no longer be reasonable to assume constant shares of profits and of wages in the value added within the higher productivity areas, as the amount of capital per unit of output is presumably declining while the use of labour is much greater than in the basic projection. There is therefore much more room for speculation about the wage and profit shares, and as this is a major factor in determining the distribution of income between the two remaining large groups there is more uncertainty about this distribution. This is a further aspect of the distribution of income which it is hoped to investigate more fully in future work.

The balance of payments would also be less of a bottle-neck in a development style of the sort projected here. Total investment requirements would decline, by comparison with the basic projection, and the development of an independent technology would reduce the proportion of total requirements which would be imported. Both factors would mean smaller imports of capital equipment, and since in the basic projection this was the fastest growing component of the import structure this would represent an important easing of the procedure on the balance of payments.

The general conclusion from this experiment is that if the employment problem is to be resolved by the end of the century with economic growth at the 7 per cent rate of the basic projection, and with a continuing emphasis on the expansion of modern type production, productivity would have to increase very slowly in the more productive areas of the economy. This would mean that the more modern areas would progressively depart from the technique in use in the high income industrial countries, and would require a major technological effort if the economy is to remain efficient. The range of uncertainty about any projection is inevitably greater here as a development style of this sort has not as yet been adopted anywhere.

3. *Concentration of growth on the more traditional areas*

The bulk of the employment problem is not represented by open unemployment, but rather by the fact that a large proportion of the labour force is engaged in traditional type activities at very low levels of productivity and income, and the preceding experiments considered resolving the problem by absorbing these workers

into the more productive areas and eliminating these traditional type activities altogether. Here the opposite possibility is considered: rather than shift this part of the labour force, the development process itself could be oriented around the more traditional areas with the objective of increasing production, and income and productivity levels.

This would be a still more extreme departure from the usual expectation that economic growth will be dominated by the expansion of modern type production. Relatively little attention would be given to the more modern areas here and they would account for only a minor proportion of the growth in production. Rapid economic growth would still be an objective, but the bulk of the rising production would come from the more traditional areas, and a major objective would be to raise productivity and income levels closer to those already prevailing in the more modern areas. This would clearly be a very different style of development and no attempt at a general analysis can be undertaken in the present context; it is presented only as a logical possible alternative solution to the employment problem and the discussion is limited to this aspect.

The essential assumption in the experiments designed for this purpose is that by the end of the century productivity in the more traditional areas of the agricultural and services sectors (the two large poor groups in the basic projection) is raised to half the national average—as against only around one quarter of the national average in the basic projection. Again the rate of increase in the gross product is the 7 per cent rate of the basic projection and the average productivity for the labour force as a whole is unchanged. What has to be determined is: with these assumptions, to what extent would the growth process have to be concentrated on the more traditional areas if full employment is to prevail at the end of the century.

The extent to which higher productivity in the traditional areas of the agricultural and services sectors would involve a shift in the orientation of the growth process can best be seen by noting what occurs if productivity is increased and no other changes are assumed. An experiment was therefore run which assumed that productivity in these two traditional type areas rose to half the national average at the end of the century and that all other assumptions remained as in the basic projection; the result would be that at the end of the century over 20 per cent of the labour force

would be openly unemployed. This reflects the alternative discussed earlier in the analysis of the basic projection: if these traditional type areas absorb the large fraction of the labour force not required in the more productive areas, then productivity remains low, whereas if these traditional type areas do not absorb this excess labour, productivity levels can rise but only at the expense of substantial open unemployment.

This dilemma can be resolved within the present context only by shifting production away from the more modern areas, with their relatively low labour requirements, to the more traditional type areas, where labour requirements are much greater. The question then is to what extent such a shift would have to occur. A second experiment checked the effect of holding constant the relative importance of the more modern and the more traditional areas within each sector—it will be recalled that in the basic projection there is a steady increase in the dominance of the more modern areas. A shift of this magnitude is not sufficient however and the result would be that at the end of the century more than 10 per cent of the labour force would be openly unemployed.

For this sort of development style to provide full employment would therefore require not only that there be no shift in the structure of the economy towards an increasing predominance of the higher productivity areas. In fact a shift in the opposite direction would have to occur: there would have to be a progressive relative shift in production towards the more traditional type areas of the economy.

The shift required would be a substantial one. For full employment to prevail at the end of the century the more modern areas would have to decline steadily in relative importance, from initially accounting for about 55 per cent of total production to accounting for only about 40 per cent of the total at the end of the century. The more traditional areas would boost their share of the total correspondingly, from about 45 per cent in 1970 to about 60 per cent at the end of the century. In terms of employment the predominance would be even greater: more than three quarters of the labour force would be employed in the more traditional areas at the end of the century.

Within the framework of the rapid increase in total production which is projected, this major shift in relative importance would occur while all areas continued to expand: production

in the more modern areas would be multiplied nearly six times over the 30 years and in the traditional areas by more than 10½ times. Only the emphasis would be changed, a further illustration of the large changes which can be brought about by controlling the expansion process. There would be no interference with existing modern type production (this type of production would even continue to expand fairly rapidly), but whereas in the basic projection nearly three quarters of the increase in production is provided by the more modern areas, in this projection less than 40 per cent of the increase comes from these areas. It is this re-orientation which gradually changes the structure of the economy.

The impact on the distribution of income would be of a different sort, but with an end result similar to that of the earlier experiments. The three major groups distinguished in the basic projection would remain and they would account for similar proportions of the labour force. But incomes of the large bottom group would be raised substantially as a result of the higher productivity levels, and the average income of this group would be close to that of the middle group by the end of the century. The improvement in the distribution is therefore rather similar to that which resulted from previous experiments.

There would also here be a favourable impact on the balance of payments. Import coefficients in the more modern areas are higher and the decline in the relative importance of modern type production would therefore mean reduced pressure for imports and an easing of the balance-of-payments situation. For similar reasons the financial position of the public sector would be less favourable however. Government revenues are closely tied to the more modern areas and unless there is a change in the tax structure the reduced relative importance of these areas would mean lagging receipts.

It seems unlikely that any Latin American countries will formulate a development policy

of the sort projected in this experiment. The more modern areas have very generally been regarded as the most dynamic, and the low income and productivity areas of the agricultural and services sectors as the least dynamic areas of the economy, and this would pose major difficulties for any policy which aimed at concentrating the growth process in these latter areas. A further problem is that the low "productivity" in traditional type services is often simply a reflection of a very unequal income distribution structure, and if incomes of this low income group were raised sharply the market for an important part of these personal services would in the process disappear. To the extent this is the case the only solution for the low incomes is to absorb this part of the labour force in other activities.

It is therefore not to be expected that any Government will undertake a policy of this sort, which in the conditions stated in the model would lead to a substantial decline in the relative importance of the more modern areas. The primary interest of the approach examined here lies not in its forming the centre of a development strategy aimed at resolving the employment problem, but rather in the possibility of combining this approach, as a secondary factor, with either of the two orientations considered previously. Resolving the employment problem while retaining an efficient economy is likely in the end to depend primarily on (1) achieving very high growth rates or (2) devising more labour intensive, efficient techniques within the more modern areas; but both approaches present formidable difficulties and the resolution of the employment problem could extend well into the next century in some countries. In these circumstances efforts to increase production, and hence productivity levels and incomes in the poorest areas of the economy play a valuable secondary role in the general strategy, alleviating the position of the poorest groups during the considerable period which must pass before a definitive solution can be achieved.

V. EXTERNAL SECTOR

As already noted, one of the obstacles to a high growth rate is external disequilibrium, with a fairly slow expansion of import capacity contrasting with a rapid increase in the need for imports. It is because of the acceleration of development itself that there is a constant rise in the demand for imported

goods; the modernization of the economy—which, since the pattern of development, being imitative, follows in the footsteps of the industrialized countries—takes the form of the steady incorporation of new products and processes and exerts presumably strong pressure for the importation of new goods; attempts to

expand and, above all, diversify exports so as to compete on external markets require a modern export sector which, at least in its early stages, depends on imports of machinery and equipment, while the possibilities of substitution are limited owing to the fairly low import coefficient.

If the increase in the purchasing power of exports, which is the main factor in the capacity to import, is not sufficient to finance the imports required, either the external debt increases or the growth of the product is slowed down. In the model, the growth rate of the product is determined by the desired consumption targets, and so the analysis concentrates on the repercussions of specific growth rates on external resources.

Obviously, the findings will depend on the assumptions employed; however, since the latter are favourable, they represent in a sense the minimum problems and magnitudes involved in the external sector. The basic assumptions employed, as stated above, are: (a) an annual growth rate of exports of 7 per cent; (b) constant import coefficients; (c) constant terms of trade; (d) a 4 per cent annual rate of interest on the external debt; (e) 5 per cent annual amortization of the debt; and (f) a constant flow of external resources in the form of direct investment and an annual return on foreign capital of 5 per cent.

The rate of projection of exports over 30 years is high not only because of the magnitudes that this growth implies but also because of the change in the structure of exports that it entails; new exports, particularly of industrial products, must expand considerably faster in order to offset the relatively slow growth of traditional exports. The import coefficients are constant at the 1970 level for the various types of goods, in terms of the consumption of each segment of the population, the level of production of each sector in the case of intermediate imports, and investment per sector and technique in the case of capital goods. These coefficients (indicated in the basic experiment) are sufficiently low for it to be difficult to reduce them further; hence their maintenance at a constant level means considerable substitution. As regards the terms of trade, it is assumed that the trend of prices of exports and imports will be similar, which is consistent with the importance attached to new exports. The terms of the external debt and other inflows of foreign capital are favourable as far as the entry of such capital, the

return on it and the terms of the debt are concerned.

For all these favourable assumptions, there is still a systematic tendency towards external disequilibrium. Imports continue to grow faster than exports and result in a moderate but constant deterioration in the trade balance. By the end of the century, the trade deficit is more than 10 per cent of revenue from exports. The size of this deficit would not seem so great were it not that it is assumed to continue over a prolonged period. It is easy to appreciate that a negative balance of this magnitude would over 30 years, accumulate an additional debt equal to three times the value of initial exports; even if the interest on this debt is at the low rate of 4 per cent, the balance-of-payments deficit on current account would increase appreciably and accelerate the process of accumulation of the debt. Taking these factors into consideration, the balance-of-payments deficit on current account by the year 2000 would represent more than 15 per cent of exports. The external debt, for its part, would be almost 10 times higher at the end of the century than in 1970. These magnitudes do not make allowance for movements of capital and are directly attributable to the trade deficit resulting from the desired growth rate.

The problem, therefore, depends on the possibility of meeting the growth rate of imports required by the proposed rate of development. If current income fails to do so, then economic growth would have to depend on the inflow of external financial resources. However, since this implies an outflow of funds in the form of profits, interest and amortization, it may in fact actually aggravate the tendency towards an external bottle-neck. The basic projection assumes that the annual inflow of foreign capital in the form of direct investment would rise steadily from 10 per cent of export earnings in 1970 to nearly 20 per cent by the year 2000. However, this large flow of resources would be considerably reduced by the remittance of profits, which by the end of the century would amount to almost 11 per cent of exports (even assuming a fairly moderate return). In other words, the net contribution from this source would be reduced to less than 9 per cent of income from trade, which would not be enough even to meet the trade deficit.

Account must also be taken of interest and amortization in respect of the external debt, which mounts up as external resources prove insufficient. Since revenue from exports and

direct investment do not suffice to finance imports, interest and amortization in respect of the accumulated debt have to be paid for out of additional debts; thus, the rate of accumulation of external debt accelerates and the servicing of foreign capital becomes an increasing burden. The figures show how, in 1970, debt servicing represents 10 per cent of exports compared with 12 per cent in the year 2000.

If the remittance of profits is included, the balance-of-payments deficit on current account is even larger, rising from about 7 per cent of exports in 1970 to over 27 per cent of export earnings by the end of the century. These deficits require a steady increase in the gross inflow of capital which, by the year 2000, would amount to approximately 34 per cent of exports, more than 3 per cent of the gross domestic product; the corresponding net contribution would amount to only 11 per cent of export earnings.

Briefly then, it can be said that, from the standpoint of the external bottle-neck, the possibility of maintaining a steady annual growth rate of the product of 7 per cent depends, on the one hand, on a rapid development of exports and, on the other, on an inflow of external resources to alleviate the systematic tendency of the economy towards external disequilibrium; the nature and terms of this flow of capital would therefore have to be such that the service payments on it could be met fairly easily. It should be emphasized that external resources are a complementary factor and that the main issue is the growth of exports.

Obviously, import substitution (in other words, the restriction of the volume of imports) is an alternative method of reducing the external deficit that serves a similar purpose as the increase in exports. It was pointed out at the start that the global import coefficient suggested serious difficulties in bringing about further substitutions successfully; however, if import requirements could be reduced—in respect of capital goods, for example—the pressure on the balance of payments would be reduced. In any case, the implicit product-elasticity coefficient of imports is 1.05, which is not very high considering the expected acceleration in the growth rate of the gross domestic product.

In addition to the problem of the external sector within the context of the basic projection, an analysis is made here of certain variations so as to clarify a few other points: first,

the impact of the terms of trade (being taken as constant, this was not considered); secondly, the sensitivity of the external deficit to export earnings; finally, the repercussions of higher economic growth rates on the balance of payments.

With regard to the terms of trade, a hypothesis was used that, by the year 2000, the over-all terms of trade would be 83.3, based on the various different trends of prices of imported consumer, intermediate and capital goods. The direct impact would be felt on the purchasing power of exports, which in that year would be 17 per cent lower than the basic projection; that is to say, the same volume of exports would generate income permitting the acquisition of a 17 per cent smaller volume of imports. Put differently, the imports needed to maintain the annual growth rate of the product at 7 per cent would require a 20 per cent increase in the volume of foreign currency. Obviously, the negative trade balance would deteriorate considerably, amounting to 32 per cent of export earnings. If remittances on profits and interest on foreign capital are added to this trade deficit, the balance-of-payments deficit would amount to over 50 per cent of exports. As a result, the external debt would rise rapidly to intolerable levels; by the year 2000, it would be almost four times total export earnings and its servicing would account for more than 30 per cent of exports. To meet these service payments and cover the trade deficit, a gross annual inflow of foreign capital equal to over 75 per cent of exports would be needed, that is to say almost 8 per cent of the gross domestic product. This situation would arise despite substantial direct investment, which might even exceed remittances on profits and therefore help to alleviate the external debt. Under these circumstances, the external bottle-neck of the economy would prevent the proposed growth rate from being reached.

The growth of the product is another important factor. Because of the unfavourable trend of import prices, a slight reduction would occur in the rate of expansion of the economy with the result that, by the end of the century, the gross domestic product would be 1 per cent lower than that shown in the basic projection. Owing to the higher prices of imported inputs, the value added by a given level of production would be lower at the sectoral level—all other factors remaining constant. However, since the market value of the imported components would increase, the invest-

ment ratio would be higher in terms of the domestic product.

Two variations were introduced in respect of export earnings. The first assumed that the growth of exports would be slower during the period 1970-2000, and the other assumed different rates—higher and lower—for certain sub-periods. In the first case, the annual growth rate of exports was taken as being slightly over 5 per cent; in the second, one assumption was made that the annual growth rate would drop to 5 per cent during the period 1970-1975 and the other that the rate would be slightly higher, around 8 per cent, during the period 1970-1974. The findings point to the tremendous importance of the trend of exports on the external disequilibrium, since the sensitivity of the trade deficit and balance of payments is such that the magnitude of the impact is much greater than the direct fluctuations in their purchasing power.

The projection of exports at an annual rate of 5.2 per cent (which is not as low as it might seem, considering that exports would still practically quintuple over 30 years) would mean a considerably lower level of earnings by the year 2000, 40 per cent lower than with a growth rate of 7 per cent. Consequently, the trade deficit is appreciably greater, amounting to 70 per cent of exports. The slower growth of the latter has a negative impact on the growth of the product while import requirements only drop by 8 per cent. The mere existence of a trade deficit of this magnitude shows how intolerable this situation would be; it would be virtually impossible to achieve the proposed growth rate but, for the sake of illustration, let us see the kind of external financing that would be needed to cover it, without considering the inflow of external capital in the form of direct investment which, as indicated before in connexion with the hypotheses considered, would not only offset the payment of profits but would slightly reduce the additional need for external resources. If the growing trade deficit were financed by further loans from abroad, the external debt would, by the year 2000, be almost 10 times greater than the value of exports. Debt servicing would absorb almost 80 per cent of foreign currency generated by exports and would require a gross inflow of foreign capital of over 140 per cent.

The other possibilities considered underline the important role of exports in the external bottle-neck and show how sensitive the trade

and balance-of-payments deficit is to variations in its growth rate. Generally speaking, these deficits decrease or increase more than proportionally to variations in export earnings, owing to the indirect effect of the accumulation of external debt and the constant increase in service payments. From this standpoint, the expansion of exports (or the reduction of import requirements as a result of substitution) should play a more important role than external financing in resolving the external disequilibrium. One must not forget, however, the possible positive effect of an inflow of foreign capital, which would complement domestic resources and lead to higher growth rates and which have not been dealt with here.

Finally, in order to obtain an idea of what a higher growth rate would mean for the external sector, an analysis is made of the effect of an annual average economic growth rate of 8.8 per cent up to the end of the century. Obviously more imports would be needed owing to the change in the structure of production and in demand resulting from an acceleration of the rate of growth, and their expansion is proportionally greater than that of the product; with regard to the basic projection, while the domestic product is less than 80 per cent higher, imports would have to be more than doubled. In other words, if exports remain constant the trade deficit rises significantly. With an annual growth rate of export earnings of 7 per cent, by the year 2000 there would be a negative trade balance almost 30 per cent greater than the volume of exports; that is to say that the ratio between imports and exports would be 2.3 to 1. Obviously, it would be impossible to finance a trade deficit of this size. The foreign capital that would be needed would be out of all proportion and the accumulated debt-servicing by the end of the century would be greater than the value of exports. The external bottle-neck would not permit such a rate of economic expansion. For the trade deficit to be reduced to 20 per cent of exports by the year 2000, the latter would have to expand at an annual rate of 9.5 per cent, always assuming that the terms of trade remained at the 1970 level. The significance of this rate is clear if one considers that the 1970 exports would have to increase 15 times in order to meet the level indicated for the year 2000.

The external sector thus imposes a serious limitation on the rate of expansion of the economy, which is dependent essentially on the trend of exports. Considering the trade deficit alone,

it would be necessary for exports to increase by at least 7.5 per cent per year so that the gross domestic product could expand steadily at an annual average rate of 7 per cent over 30 years (assuming that further substitution is not possible). A more rapid growth of the economy would require a more rapid growth of exports.

The salient points of the analysis can be summed up as follows:

(a) There is a systematic tendency towards external disequilibrium because import requirements grow more quickly than exports;

(b) The import requirements increase as the

growth rate of the economy accelerates owing to the structural changes involved (even if the individual import coefficients remain constant);

(c) In the long term, the trade and balance-of-payments deficit increases (or decreases) more than proportionally to fluctuations in export earnings, owing to the indirect effect of payments on foreign capital;

(d) Increasing remittances in respect of profits on foreign capital accentuate the external disequilibrium;

(e) The external bottle-neck inevitably limits the rate of growth of the economy.

SOME CONCLUSIONS ON INTEGRATION, INDUSTRIALIZATION AND ECONOMIC DEVELOPMENT IN LATIN AMERICA¹

Introduction

What role can basic industry play in the development of Latin America in the next few years?

Is a policy in favour of the export of manufactures, based essentially on the sectors that have already attained a high degree of efficiency, sufficient to keep development going? Is import substitution really as played-out as people tend to say?

What contribution can economic integration make to the development of Latin American countries? Is integration important only for the medium-sized and small countries with small markets, or can it also be important for the large countries? Is the market of the latter really as large as is often thought and is it sufficient to permit them to produce manufactures directly for the international market, without worrying about Latin America?

What relationship is there between economic integration and the approach to industrial development—i.e., through import substitution, the export of manufactures, or a combination of both? Is integration mainly of interest to basic industries?

Should the advantages of integration be sought only under conditions of free trade, or should it also involve a certain minimum of regional programming, or at least harmonization of development policies?

Has integration had really significant favourable effects on the development of the countries of Central America so far? Have these effects been quite minimal in the case of LAFTA, as is generally said? Is it really true

that serious problems stand in the way of achieving a balance among the countries taking part in integration schemes?

These are the questions that have given rise to this study. Although it is not yet possible to answer them completely, a great deal can be done towards classifying the problems they raise. To do so, it has been necessary to consider economic integration as a process which is closely linked to industrial development, the transformation of trade, and changes in the structures of production.²

The process of industrialization and development in Latin America is going through a transitional stage. Left behind is the phase of development based almost entirely on import substitution geared solely to the domestic market of each country. In many countries of the region, the export of manufactures to other Latin American countries and to the rest of the world has made considerable progress and is now firmly established, although it still suffers from various teething troubles which have prevented it so far from accounting for any really significant share of industrial production.

The reaction against the undeniable shortcomings of import substitution processes geared solely to the limited sphere of each country's own market has been very strong and has become deeply rooted both at the intellectual level and in terms of the policies pursued. Criticism is quite justifiably levelled at the following aspects of such processes: the poor degree of efficiency of many industrial activities that have only been able to expand thanks to strong and indiscriminate protection; the clear illogicality of the under-utilization of capacity by many sectors of industry in countries where capital is particularly short; the fact that manufacturing has not only shown limited capacity to absorb manpower productively, but has also failed to achieve an adequate rate of industrial

¹ This document is a summary of the conclusions of a recent ECLA study entitled "*Integración, sustitución de importaciones y desarrollo económico de América Latina* (ECLA/PC/DRAFT/109), which attempted to define more accurately the present state of industrial development of the Latin American countries, future requirements in this field, and the role that economic integration can play in facilitating the growth of industry and making it more efficient. The material on which the conclusions were based can be found in the document referred to.

² This does not mean that the considerable relevance of integration to transport, energy, movement of capital, agriculture and so on should be overlooked.

growth over long periods and has done little to encourage the more rapid creation of employment opportunities; and the orientation of manufacturing towards a market to which only a limited section of the population has access, thereby excluding a vast number of people whose purchasing power is not sufficient for their demand to exercise a positive influence on development.

As far as practical economic policy is concerned, there has been quite a marked change in the character of the economies of many countries, which have tended to become much more outward-directed, as may be seen from the rapid growth of imports.

Many of the criticisms that have been levelled at some of the fundamental aspects of import substitution in the past are undoubtedly justified. This does not mean, however, that the pendulum should now be allowed to swing to the opposite extreme of ignoring the obvious progress that has been made in industrialization and development, in the creation of a manufacturing infrastructure that opens up new horizons, and in the acquisition of experience in production and organization and the formation of manpower resources of all levels which have in many cases enabled international standards of competitiveness to be reached, thus allowing countries to start exporting manufactures.

A proper appreciation of past progress and present achievements in import substitution and industrialization is not only interesting from the historical and academic point of view: it is essential for the correct interpretation of the nature of the stages that lie ahead and the selection of the most appropriate development policies for dealing with them.

Such an appreciation can only be obtained by means of a more extensive sectoral analysis than has been carried out so far. An analysis of this kind reveals that progress has been very uneven. Major advances in certain sectors contrast with conspicuous backwardness in others: often precisely those sectors that play a decisive role in development and therefore seriously hamper and restrict the growth of the entire economy when not sufficiently advanced.

It is therefore necessary to avoid the kind of over-simplified and inaccurate generalizations that deem the export of manufactures and import substitution to be contradictory activities. An analysis by countries and by specific sectors, and the introduction of a

regional as opposed to a national concept, give a more accurate idea of the contribution that basic industry and economic integration can make towards the more rapid and unimpeded development of Latin American countries.

The extraordinary boom that took place in the world economy in the last few years—particularly 1972 and 1973—was reflected in exceptionally large increases in the prices of Latin America's traditional exports and in the volume of exports of both primary and manufactured goods. The prospects of the world economy for the next few years are much less promising, however. Although this is not the place to go into matters that are covered by other ECLA studies, it is not unduly pessimistic to assume that the growth rate of the world economy will be less on average during the rest of the 1970s than over the past 10 years, and inflation in the developed countries will probably be even higher than in the recent past. This may mean that it will be more difficult to maintain a high growth rate of exports to countries outside Latin America and that the prices of the region's imports will rise faster than those of its exports.

The significance of regional economic cooperation and of the development of certain sectors producing capital and intermediate goods must be carefully reconsidered with an eye to the situation that will have to be tackled in the coming years. This study is intended to contribute to that reconsideration.

1. *Uneven progress in industrialization*

Progress in industrial development in Latin America has varied widely from sector to sector and country to country. Some countries of the region have not yet reached stages of development that others have already left behind them. In addition to this, however, even in the largest countries where the process of industrialization is most advanced there are big gaps between individual sectors that are reflected in very different import coefficients.³

³ The import coefficient and proportion of exports in relation to production are used here as indicators of the degree of progress of domestic production. These coefficients must, however, be looked at in the light of the size of the country's market: with its large market, the United States has a low coefficient in both cases, although it is a very advanced country. On the other hand, the Scandinavian countries, which are smaller, have higher coefficients. The important point is the similarity or difference between the import and export coefficients of various subsectors making up a broad sector of the economy.

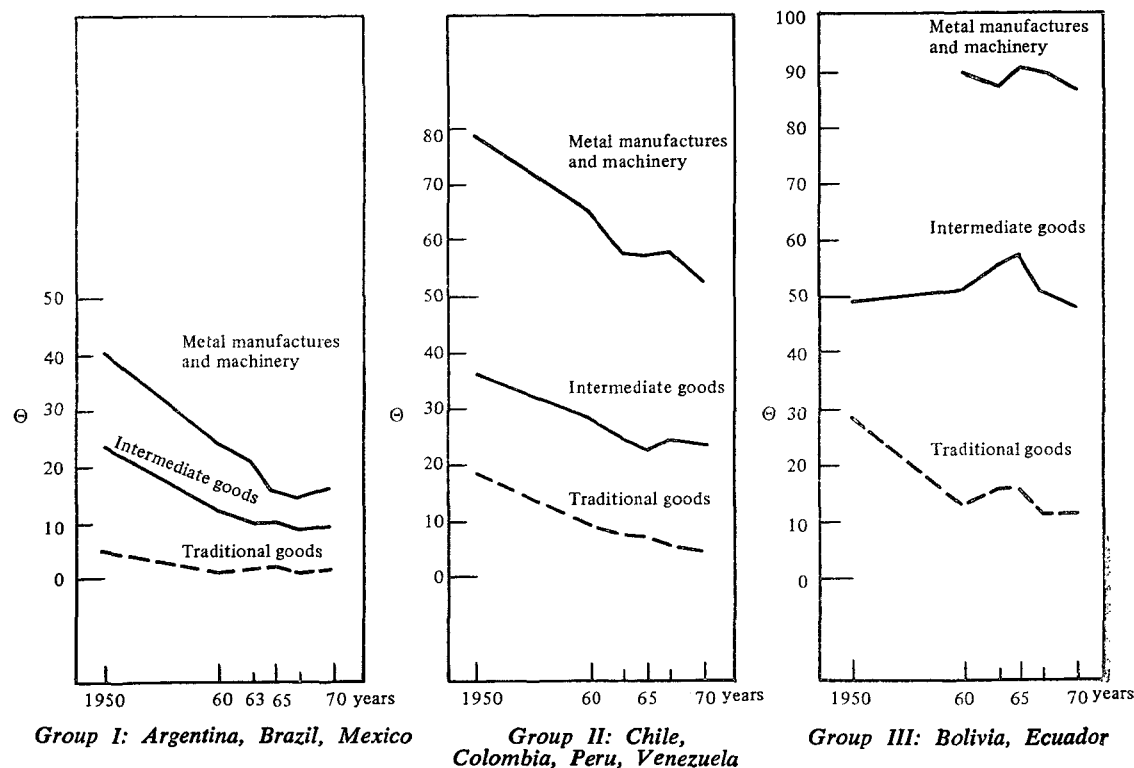
Whereas in 1970 (at 1960 prices), these more advanced countries (Argentina, Brazil and Mexico) only imported products of traditional industries corresponding to 2 per cent of their demand for intermediate goods and 16.5 per cent of the demand for metal manufactures

and machinery (figure 1). The import coefficients for certain subcomponents of the metal manufactures and machinery industries that are very important for industrial growth were even higher. Thus, in 1970 (at 1960 prices) imports in the vital non-electrical machinery sector still represented 40 per cent of demand in Brazil, about 25 per cent in Argentina and 81 per cent in Mexico. Generally speaking, production of capital goods is, on average, less advanced than that of consumer goods. Among capital goods, in turn, production of those which correspond specifically to individual industries, where they form the backbone of the industry's production equipment and determine the technological level of the sector concerned, is less advanced than that of capital goods for general use that are employed indiscriminately

Industry in general may be highly dependent upon foreign trade, and in a country with a small market, this has to be so if it is to operate on a suitably productive scale. If the country has reached a high level of industrial development, the exports of its more advanced sectors will be relatively large compared with the corresponding imports. In a country at an early stage of development, on the other hand, exports will be mainly of more elementary goods and imports of the more sophisticated kind. The average import coefficient for the whole of the economy may increase in Latin American countries as progress is made in industrialization and import substitution in certain key sectors.

Figure 1

LATIN AMERICA: PROPORTION OF DOMESTIC DEMAND COVERED BY IMPORTS IN SELECTED INDUSTRIES, BY GROUPS OF COUNTRIES



SOURCE: ILPES.

Note: The traditional goods industry includes the following sectors: food, beverages, tobacco, textiles, clothing and footwear, wood and cork, furniture, and leather manufactures; the industries mainly producing intermediate goods consist of the following

sectors: pulp and paper, rubber, chemical products, petroleum products and non-metallic mineral products (cement, glass); finally, the metal manufactures and machinery industry includes iron and steel and non-ferrous metals, metal products, non-electrical machinery and transport equipment.

in a number of industries. Even among machine tools, those that are for more general use and meet less strict technical requirements (such as those that are used for repairs) are produced on a large scale—in terms of domestic demand—than the more sophisticated machine tools which are tailor-made for a specific purpose and therefore incorporate a non-standard item of technology calling for a certain degree of technical creativeness.

Technological progress in the production of any article—textiles, food, consumer durables, chemical products, etc.—is usually reflected in the creation of a correspondingly new piece of specific equipment. It is therefore no accident that Latin America should lag in the production of these specific capital goods. Owing to its meagre capacity for creating or even adapting technology, together with the lack of a policy on science and technology and the shortage of appropriate resources, it does not create any new equipment, any new productive techniques, or any new consumer goods requiring new techniques. It almost always copies what is created in developed countries.

Far from being random, the differences in the growth rates of the various branches and sub-branches of industry have a clear implication: the backwardness is precisely in the production of goods that have a vital role in the process of technological innovation. Instead of specializing in one activity from start to finish so as to produce final goods, some of the principal types of intermediate goods and, above all, equipment—a policy which could well be adopted by countries which are technologically well ahead in a given sector and would therefore not suffer by having to import other goods—Latin American countries have in fact embarked upon a kind of horizontal specialization and left technological innovation entirely to other countries. In other words, there has been a big increase in the production of a great number and variety of goods. All of them, however, depend fundamentally on technology that is entirely generated elsewhere and imported, with little or no adaptation, in the form of capital goods in which the technology is incorporated.

This is especially important because competition on the world market is not just a matter of achieving lower costs and better quality, but above all of producing new goods or introducing improvements to existing goods. New models of motor vehicles and of consumer durables in general are typical examples of this.

It is not only these types of goods that are affected, however: this applies to all products, as is evidenced by the constant new types and models of shoes and clothing, new ways of presenting or preparing food, etc. The lack of innovative capacity thus puts Latin American industry at a considerable disadvantage when competing against other countries. Where innovations have been introduced, results have generally been very positive. In itself, importing technology is necessary and desirable: every country in the world, even the most advanced, does it. The problem is simply that Latin America's dependence on imported technology is so complete and one-sided.

Even the larger countries of Latin America are far from having made sufficient progress in the production of a broad range of capital goods, and domestic demand depends very largely on imports. As a result, the industrial sector and the process of development are very vulnerable and dependent upon other countries.

As mentioned above, progress in industrialization varies from sector to sector. Looking to the future, it can be said that industrial progress must be more selective and specialized and that the sectors that have so far remained backward must be developed, while the export of manufactures must be increased. In quantitative terms, import substitution cannot continue at the same rate as in the past, but it does have unquestionable importance in qualitative terms and in key sectors. This is obvious from the fact that it is precisely the sectors that are most backward in the process of import substitution that produce such vital items in terms of development, as capital goods (particularly specific goods) and certain vital intermediate goods.

Study of the present situation in Latin American countries also shows that in many cases the import coefficient is still high, reflecting the considerable potential that exists for import substitution in vast areas of the economy. It is also clear that the import coefficient has stabilized at higher levels in some countries than in others, presumably owing in part to the size of their market: certain sectors of industry, by their very nature, require a certain scale of production and cannot develop beyond a certain point in medium-sized or small national markets. This is indicative of the possibilities offered by integration and highlights the important role it can play in the development of Latin American countries. In many cases, import substitution can and must be combined with the

promotion of exports, by establishing industries which not only satisfy domestic demand but also meet part of the demand from other countries in the region and even compete on the world market.

There can be no doubt that henceforth the centre of gravity of import substitution policy must be different from that of the past and must vary from one type of country to another. In large countries, import substitution in respect of capital goods and certain intermediate goods can play a fundamental role, its function as regards consumer goods, in contrast, being less important. In the medium-sized and small countries, however, import substitution in respect of consumer durables and even certain non-durable goods still has an important part to play. Of course, these countries also offer a great potential for import substitution in respect of capital and intermediate goods, which has little scope in small markets but is feasible with integration.

2. Acceleration of the growth of imports

Up to 1965 the average growth of imports was 40 per cent that of the product, in other words, an annual growth of 6 per cent in the product was accompanied by a growth rate of 2.4 per cent in imports. Between 1965 and 1973, however, the ratio between the two growth rates rose to an average of 130 per cent, so that the same annual growth rate of 6 per cent in the product was now accompanied by an increase of 7.8 per cent in imports.

The behaviour of imports is still more notable in some Latin American countries. In Brazil, imports increased between 1965 and 1973 at a rate which was almost double that of the growth of the product, and in Argentina, from 1966 onwards, the growth rate of imports was approximately 1.8 times that of the product. Peru and Central America offer a marked contrast to these two cases: in Peru, the elasticity of imports compared with the product in recent years has been less than that observed up to the first half of the 1960s, while in the Central American countries, owing to the substitution and contraction of imports towards the end of the 1960s, the growth of imports in comparison with the growth of the product has been less than that which took place before 1968; the activity of the Central American Common Market has permitted the substitution of imports from the rest of the world, and this has influenced the results to a considerable extent.

This rapid growth in Latin American imports explains why, despite large-scale increases in exports and after long years of positive trade balances, Latin America went back again to negative trade balances between 1970 and 1973 (figure 2). This is a fact of great significance, for while the increase in the purchasing power of exports is partly the result of a structural change in them (growth of manufactures) it has also largely been the result of temporary and reversible causes such as the increase in the prices of some basic commodities. The accelerated growth of imports, however, reflects the effect of structural characteristics of the economy which, were exports to be restricted in the future, would entail a costly and difficult readjustment of the economy which could very likely only be achieved by sacrificing the growth rate of the product, as has already happened in the past. Any relaxation of the concern with the external strangulation which has affected many countries in recent years might thus prove to be premature.

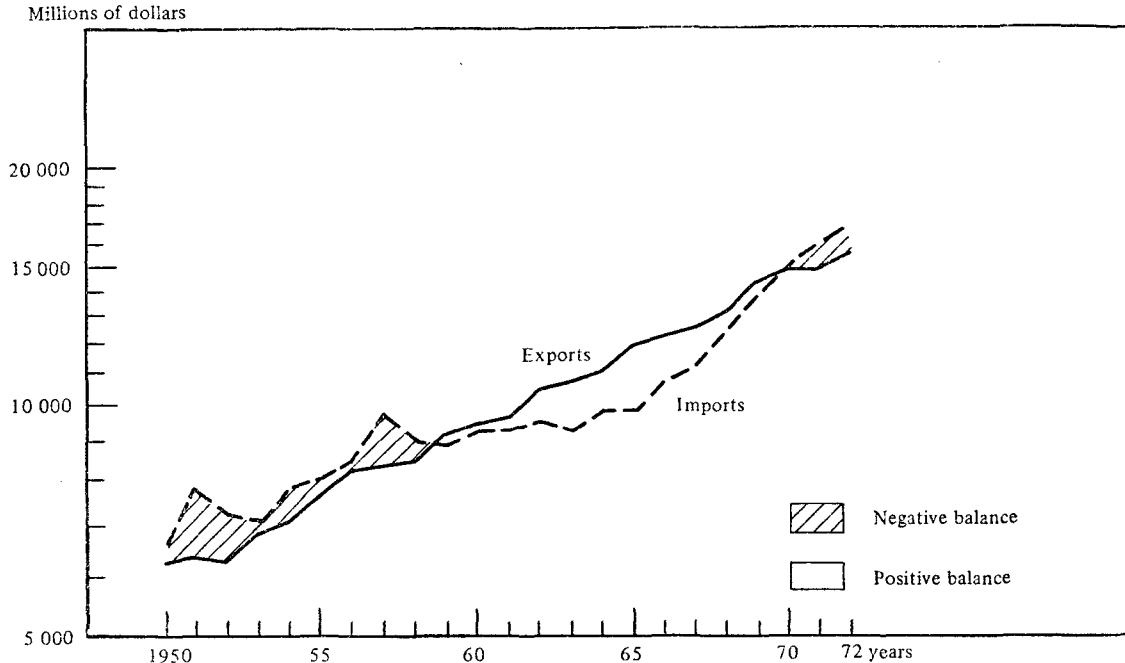
Among the reasons for the large-scale increase in imports, some of the most important are the following.

First, as the *per capita* income of a country increases, the structure of demand changes and the demand for goods with a higher import content increases more rapidly. This occurs because the middle and higher income sectors, which play an important part in actual demand, keep wanting more complex goods as their simpler needs are satisfied and their incomes increase. As regards consumer goods, for example, the demand for more sophisticated consumer durables increases more swiftly than that for simpler goods which satisfy more elementary needs. This fact is more noticeable because the new goods resulting from technological change are designed and created abroad, with the result that Latin America systematically has to import them in large quantities. In the case of capital goods, as mentioned earlier, the import coefficient is also very high. Thus, as earnings increase, the proportion of high-import-content goods in the total demand also grows, and therefore imports increase more rapidly than the product. If the growth of the product is speeded up, a further increase takes place in the proportion of investment and there is therefore an additional tendency towards an increase in the import coefficient. The import coefficient for the economy as a whole may therefore increase even though the coefficient for each of the sectors remains

Figure 2
LATIN AMERICA: EVOLUTION OF IMPORTS AND EXPORTS OF GOODS AND SERVICES (EXCLUDING FACTOR PAYMENTS) BETWEEN 1950 AND 1972

(Millions of dollars at 1960 prices)

Semi-logarithmic scale



SOURCE: ECLA.

stable, as a result of a change in the structure of demand which causes the demand for goods with a higher import content to increase more rapidly. This means that even if there is neither an increase nor a decrease in domestic production as compared with imports in any sector of the economy, there will still be a tendency for import requirements to grow more rapidly than the product. Thus, when the import coefficient remains steady, in developing economies like those of Latin America, this means that in some sectors of the economy import substitution is taking place and offsetting the effect of this change on the structure of demand.

Secondly, even when there is local production of more sophisticated goods, these initially contain a high content of intermediate goods and capital from abroad, and although demand is apparently satisfied by national output, in fact this causes a high level of imports.

Thirdly, intra-area trade has boosted the growth of exports, and although this is of con-

siderable benefit to the economies of the countries concerned, since it represents a factor of expansion, this increase in exports obviously means at the same time an increase in the imports of the countries both as a whole and individually, since the balance of trade of each country with the rest of the area is a basic political consideration and there can be no systematic increase in exports without a proportional increase in imports. In some cases this increase in intra-area trade stems directly from economic integration decisions, while in others it is due to indirect effects of the same processes; this point will be dealt with below.

Fourthly, in many countries the restrictions on imports from outside Latin America which were in force up to the middle of the 1960s have been eased. The desire to introduce greater competitiveness in the economy, and the increase in the availability of foreign exchange due to the faster growth of exports, have led many countries to adopt policies which make their economies more open to the exterior, with

less protection and consequently increased imports of many types of goods. This may be seen in the increased import coefficients of many sectors of the economy in various countries of the region.

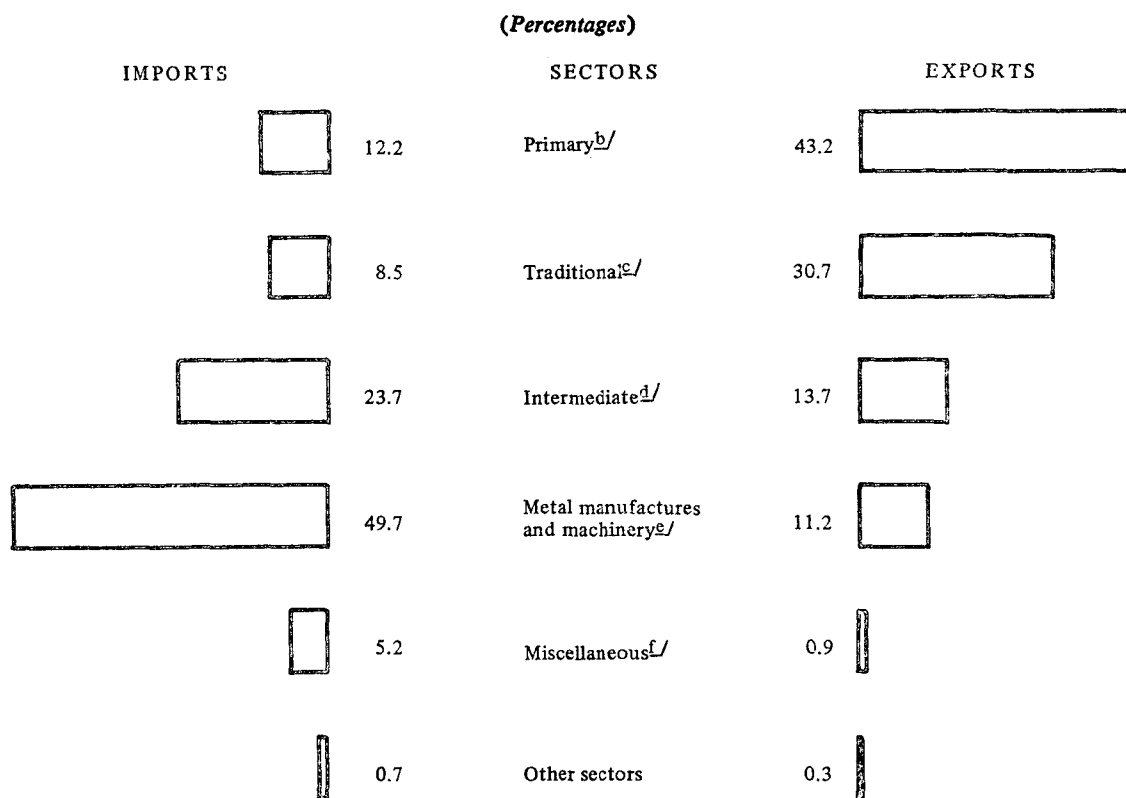
Fifthly, in some Latin American countries there has been an extraordinary increase in externally financed imports in some years. The increase in suppliers' credits for machinery and equipment, which is closely linked with this situation, has its unfavourable aspects because the terms of interest and amortization of these credits are frequently onerous and therefore severely overload the servicing of the external debt, which is already beginning to weigh heavily on the balance of payments.

3. *Asymmetry of external trade as a sign of immature development*

The structure of imports and exports even the relatively more developed Latin American countries shows a very marked asymmetry: the two are very different from each other, and they are also very different from those to be found in mature developed economies (figure 3).

In the developed countries the structure of imports is fairly similar to that of exports, considering both from the point of view of the sector of origin of the goods. It may be asked why the sector of origin is important. The answer is that different sectors have different types of significance for economic de-

Figure 3
LATIN AMERICA: COMPARATIVE STRUCTURE BY SECTORS OF IMPORTS AND EXPORTS OF GOODS IN 1970^a



SOURCE: ECLA, on the basis of the Statistical Annex of document ECLA/PC/Draft/109, op. cit.

^a The data are based on a sample from: Argentina, Brazil, Chile, Mexico, Venezuela and Central America.

^b ISIC divisions 01 to 19.

^c ISIC divisions 20 to 26 plus 29.

^d ISIC divisions 27 and 30 to 33.

^e ISIC divisions 34 to 38.

^f ISIC divisions 28 and 39.

velopment. Exports of primary commodities indicate the availability of natural resources. Exports of semi-processed goods indicate initial progress in the industrialization process, making possible the export of primary commodities which have undergone some degree of industrial processing and thus incorporate a certain content of manufacturing labour, which is better remunerated than that employed in the production of primary commodities. The ability to export the products of light industries—non-durable consumer goods and consumer durables—represents a further step and means that the country is in a position to export manufactures proper. Exports of goods produced by basic industries, especially the specific capital goods mentioned earlier, take place when the country achieves a degree of maturity which enables it, at least in some sectors, to move up into the technological and industrial vanguard and compete on an international level in the production and sale of goods incorporating the innovations which are constantly taking place in the various industries.

Each of the Latin American countries exports some primary commodities and imports others under competitive conditions; the availability of natural resources reflected by this is a positive fact of undoubted importance, as is underlined by the recent developments regarding petroleum and the keen interest of the developed countries in ensuring themselves a normal and adequate supply of primary commodities. The Latin American countries have also succeeded in making some progress in the export of semi-processed primary commodities, although they still have a long way to go in this area, since generally speaking they export the majority of their primary products with little or no processing. The most advanced countries of the region are just beginning the stage of exporting manufactures from their light industries (non-durable and durable consumer goods), but the exports of these industries still constitute only a small share of total output. Furthermore, the Latin American countries export light industry products mainly to other Latin American countries, while the primary and semi-processed products are mainly exported to developed countries. Lastly, progress in the export of goods produced by the basic industries, specific equipment, etc., is very modest to the point of being practically insignificant, even in the most industrialized Latin American countries.

The structure of imports in the Latin American countries is also uneven, and reflects

their present level of development. Primary products are imported by each country to the extent dictated by insufficiencies in their own natural resources, but generally speaking these products do not represent a very high proportion of imports, especially in the more advanced countries of the region. Imports which are important, however, are the purchases of fuel—petroleum and coking coal—which have to be made by many countries and which latterly have created difficulties with their balance of payments. In some cases, imports of some unprocessed or semi-processed metal products such as copper and aluminium have reached appreciable levels, as have imports of food products (wheat, meat, etc.).

It is very difficult to cut down on these imports of primary or semi-processed products, since generally speaking they are essential needs, but they do not normally account for a very high proportion of imports, especially in the relatively more developed countries of the region. Imports of light industry products (non-durable and durable consumer goods) have tended to drop sharply and even to disappear in the more industrialized countries of Latin America, because of the process of import substitution, and at the present time these goods account for only a very small proportion of total imports. However, the products of basic industries—some intermediate goods and especially capital goods—have been accounting for an increasingly large share of total imports. Imports of goods from the engineering and chemical industries, which together accounted for 53 per cent of total imports of goods in 1960, now exceed 65 per cent of total imports. All these goods are essential; their decisive importance in imports is a result of the peculiar nature of the industrialization process observed in Latin America, which as already stated, has systematically left the basic industries lagging behind.

As is well known, the increasing predominance of essential industrial goods in imports is the reason why, despite the great advance in import substitution and industrialization, development has failed to bring any decrease in the external vulnerability or the balance-of-payments problems of the Latin American countries. The problems of the external sector are of a different nature nowadays, but they are no less serious. Indeed, their manifestations have been becoming more critical, because the problems of the trade balance cannot now be solved by the easy means of reducing non-

essential imports, since these have already been suppressed. When the purchasing power of exports drops it becomes necessary to sacrifice essential imports to the detriment of the level of economic activity and especially of the rate of capital formation and growth.

Generally speaking, as far as manufactures are concerned, the import structures of the mature developed economies are similar to their export structures. These countries import and export goods from the light industries producing non-durable and durable consumer goods and from the basic industries producing intermediate and capital goods. Appreciable differences are to be observed in some of them, but these involve primary goods: the Western European countries and Japan import primary products in much larger quantities than they export them, since their limited natural resources in these fields put them at an obvious disadvantage at the present time in comparison, for example, with the United States. In this case too the asymmetry between the structures of imports and exports has adverse consequences for the economic process. But these developed economies have no serious problems as regards any manufactures, since they have been building up production and export capacity in different types of industrial sectors which ensures their balanced internal development and also a balanced and dynamic performance in their external trade.

The fact of having export capacity and competitive ability in different types of industries (light and heavy, durable and non-durable consumer goods, and industries producing intermediate and capital goods) does not mean that a country cannot specialize. Indeed, specialization lies at the root of production, which must be at an appropriate scale in order to be competitive. The mature developed economies export all types of goods, but not every model of every type of product. In each of the industrial sectors, they choose a group of products on which to concentrate their efforts of production, technology, innovation, competition and export. They export these goods and in turn import others coming from the same sector of economic activity: thus each country exports and imports textiles, exports and imports basic chemical products, exports and imports consumer durables, exports and imports capital goods. This means that the country specializes in some chemical products and imports others, and does the same with textiles, capital goods, etc. This is very different

from what takes place in the economies of Latin America, which, as already stated, systematically export certain types of goods (primary products, some semi-processed goods, a very few non-durable and durable consumer goods and almost no basic intermediate goods and production equipment) and import, also systematically, the goods which are not represented in their exports: intermediate basic goods and capital goods. This not only reflects unbalanced internal development and is a hindrance to the creation and adaptation of technology, but is also the main source of chronic external strangulation: the goods exported are those in which world trade grows most slowly,⁴ while the goods imported are those with a higher demand elasticity with respect to income and imports of them therefore tend to grow at a systematically higher rate than the growth rate of the product. The interplay of these two different growth rates of world trade in exportable goods and the demand for importable goods is the basic reason for the chronic tendency of the trade balance to become a deficit. As long as there is no change in the relative structure of exports and imports which will make them more symmetrical and more similar to each other, there can be no solution to the problem of the balance of payments, nor will the conditions be achieved for smooth and sustained growth.

But there is a further fact which aggravates the situation. Even supposing that the import coefficients for goods from each and every one of the sectors of economic activity are maintained steady, the coefficient of elasticity of total imports with respect to the product will increase as the growth rate increases: i.e., not only is the elasticity coefficient greater than unity, so that imports tend to grow more rapidly than the product, but in addition this situation gets worse as the rate of growth speeds up, so that the coefficient of elasticity itself increases.

As already explained in outline, diversification of exports and progress in the production of basic intermediate and capital goods cannot be achieved by the dispersion of industrial development. It has already been pointed out, and will be obvious later, that specialization

⁴ If the great low-income masses of Latin America, Asia and Africa were really brought into the market, the elasticity of demand for primary products with respect to income could change. There does not seem to be any likelihood of such incorporation into the market soon enough or on a big enough scale to change the present situation in this respect, however.

is essential in order to achieve adequate scales of production and to be able, by concentrating efforts and the scarce resources available, to cope with technological, economic, financial and organizational problems in order to produce more sophisticated goods which can compete on the international level. This may be achieved in a manner compatible with the sectoral diversification of trade already mentioned, by the adoption of intra-sectoral specialization and by abandoning the pattern of inter-sectoral specialization which the countries of Latin America have followed to date.

It is worth noting in passing that intra-area imports and exports have a much higher degree of symmetry with respect to production and demand in the Latin American countries than imports and exports to and from other regions. This difference in the performance of intra-area trade compared with trade with the rest of the world reflects the way in which the economic integration of the Latin American economies, whether formal or not, is contributing to the development of the countries—although as yet only on a small scale—and to achieving a better balance in the structure of the economy and trade.

4. *Size of market and development*

To judge by the number of inhabitants, Latin America and several of the countries which form part of it have a fairly extensive market. But this extensiveness is more apparent than real. If the behaviour of the demand of social sectors with different income levels is observed, it may clearly be seen that only persons with a *per capita* annual income of more than 500 dollars generate any significant demand for industrial goods other than food-stuffs. More than 80 per cent of the demand for manufactures other than food-stuffs in Latin America comes from persons whose incomes are higher than the figure mentioned, but half of the population of the region has an income of less than 500 dollars.

The situation is even more marked as regards domestic demand for products from such industries as the chemical and non-electrical machinery industries, which alone account for more than half the total imports of the region. Only 20 per cent of the population of Latin America—whose patterns of demand and consumption are similar to those of Europe—may be considered to be fully incorporated in to the market for these goods; this 20 per cent is made up of persons with annual *per capita*

incomes of more than 1,000 dollars, and these are the persons who generate a significant demand for the products of these industries.

The engineering industries include the production of some relatively simple consumer durables within the reach of the middle-income strata of the population. As regards more sophisticated goods which are the subject of more dynamic demand, the situation is still clearer, since only a small minority has access to them.

In practice, then, industrial development is based on and activated by a small sector of the population. It is thus not surprising that although the factories are too small, even so a very considerable proportion of their production capacity never comes to be used. Efforts at saving, capital formation and absorption of external finance are frustrated to a large extent because only partial use is made of the plants set up with this capital. Only the high degree of protection which industry in Latin America has enjoyed has enabled it to become established and to prosper despite the small factories, the under-utilization of the capacity of production and the high costs which all this involves.

To sum up, the actual market of the Latin American countries is much smaller than the potential market. The low *per capita* income, together with its unequal distribution, means that a very large proportion of the population is unable to translate its needs into effective demand.

Thus, the effective market of the whole of Latin America for the chemical and non-electrical machinery industries is no larger than that of individual European countries like France or Italy, and in addition it is fragmented because the degree of integration among the countries is still very small. The proportion of the population practically excluded from the market because they have an annual income of less than 500 dollars is 30 per cent in Argentina, 40 per cent in Venezuela, 50 per cent in Chile, 60 per cent in Mexico, 80 per cent in Colombia and 90 per cent in Honduras.

In addition to the internal limitations of the domestic market in each country, there is the separation between countries. Factories are split up so that each can attend to a national market, but as even the countries with the largest populations have effective markets which are small by international standards this requires a very high level of investment per unit of production and raises costs to above international levels, thus making it much more

difficult to give continuity and drive to the policy of exporting manufactures outside the region. These disadvantages can only be offset by means of subsidies.

Even the largest of the Latin American markets, Brazil, which in 1973 included 40 per cent of the population of the region, only accounted for 32 per cent of the regional product, while Mexico accounted for 26 per cent; among the smaller countries, Bolivia and Ecuador each accounted for approximately 1 per cent of the Latin American product. In terms of this economic indicator, all the Andean countries together come between Mexico and Argentina, although their population exceeds the populations of each of these countries.

As regards local sectoral demand, Brazil is again the largest market, although in some sectors it is surpassed by the Andean Group and in others by Argentina or Mexico. On the whole, and subject to certain differences, the three largest countries of the region and the Andean Group area constitute markets of comparable size.

The backwardness of the basic industries which has already been mentioned, and the

large imports of goods produced by such industries abroad which are made necessary by this state of affairs, paradoxically enough mean that Latin America as a whole represents a world client of considerable size. Thus, for the engineering products exported by the United States, Latin America is four times as big a market as Japan, and for European exports of the same items the Latin American market is only a little less than half that of North America. As regards European exports of non-electrical machinery, Latin America purchases three times more than Japan and only a little less than the United States, while the Latin American countries as a whole absorb Japanese exports equivalent to half of what that country exports to Europe.

The importance of Latin America as a world purchaser of machinery and equipment not only brings out the bargaining power it could have if a co-ordinated policy were applied but also clearly indicates what could be achieved through the balanced development of the corresponding industries in the countries of the region with an eye to regional markets, instead of keeping them segregated by countries.

Similar considerations apply to the chemical industry (see table).

Table

COMPARISON OF PRICES IN LATIN AMERICA AND IN THE DEVELOPED COUNTRIES FOR SELECTED CHEMICAL PRODUCTS

(Dollars per ton)^a

Product	Argentina 1966	Brazil 1968	Mexico 1964	Peru 1966	Venezuela 1965	United States 1967	Europe 1967
Sulphuric acid	73	47 ^b	34 ^b	92	77	30	31-40
Caustic soda	198	151	126 ^b	166	155	121	75-103
Sodium carbonate	—	137	52 ^b	—	50	34	35-53
Refined glycerine	545 ^b	...	680 ^b	610 ^b	555 ^b	550 ^b	560-830
Urea	—	186	107 ^b	—	97 ^{b c}	110	84-97
DDT	1 011	480 ^b	580	—	—	375	240-260 ^d
Polyethylene	955	533	477	—	—	380	220-250 ^d
Carbon Black	390	324	240	—	285	140	165-200

SOURCE: See document ECLA/PC/DRAFT/109, op. cit., for data relating the possibility of progress in each industry to the size of the market in the ship-building and motor industries.

^a Exchange rates used: official rates corresponding to the price data.

^b Price less than 1.5 times the European price or international average.

^c Price below cost.

^d Usual international level.

In many of the basic chemical industries in Latin America a given capacity requires between 40 and 50 per cent more investment than in the developed countries, owing to the small size of the installations. For most of the chemical products on a selected list (including sulphuric acid, caustic soda, sodium carbonate, urea, DDT, polystyrene, and carbon black), prices in Argentina, Brazil, Mexico, Peru and Venezuela are between 50 and 300 per cent higher than those charged by standard-size international factories. As the most competitive international factories are naturally much larger than those of standard size, the disparity with their prices is even greater. For the rest of the countries of Latin America the difference with respect to international prices is greater still.

Another significant example is the shipbuilding industry. The individual capacity of Latin American shipyards is between 12,000 and 80,000 gross tons per year (only one has a capacity as high as 150,000 tons). In Japan, Sweden, Spain and the United Kingdom, in contrast, the normal capacity of each shipyard is between 500,000 and 700,000 gross tons per year, and in some exceptional cases it is as high as 1,400,000 tons. The fact that the Latin American shipbuilding industry is oriented towards separate national markets means that, despite the substantial demand for ships in the region as a whole, which exceeds the production of average European countries with traditionally established production and demand, the existing shipyards are small and the vessels they build are also small. In Latin America, the production of general service cargo ships still predominates, in contrast to the large-scale construction of specialized vessels which takes place in the developed countries. The existing diseconomies of scale prevent Latin America from following the marked present trend towards the production of big tonnages and specialized vessels.

A third highly significant example is that of the motor industry. For an annual output of 10,000 vehicles per factory the extra costs involved in the assembly and production of many components amount to between 50 and 200 per cent on top of the normal cost. For an output of 50,000 vehicles, although these extra costs are much lower, they still amount to between 20 and 75 per cent for many of the parts. With an output of 100,000 vehicles, the extra costs are much more reasonable (between 5 and 30 per cent), and although they still considerably hamper the possibilities of competing on the international market, they come fairly close

to international conditions. With this latter volume of output, the uncertainty which arises tends rather to involve the capacity to continue competing in the face of technological change and its effects on the economies of scale. Only one Latin American factory has reached and exceeded the figure of 100,000 vehicles per year; all the rest are well below this figure and frequently do not even reach the 10,000 vehicles mark, thus confirming the great disadvantage at which the region finds itself as regards competing internationally with its motor vehicle production, except in isolated cases of spare parts and components where the economies of scale are smaller. Such exports as are made—predominantly from the region—are made possible thanks to high subsidies, but a strong sustained outward-directed policy of expansion could not be maintained without rationalizing the factories, and this in turn would require better use to be made of the regional market as a whole and more efficient co-ordination of policies between the countries.

Economic integration opens up possibilities for increasing the size of markets and may therefore help to activate the traditional industries—especially the basic industries—and make them more efficient. In many sectors, in order for this expansion of the market to be effective it is not sufficient to open up local markets to intra-area trade: the liberation of trade, although necessary, is not enough and a certain amount of concerted policy-making is also required in the form of programming, agreements on investments, long-term trade agreements aimed at favouring specialization, etc. If this is not done, the proliferation and duplication of plants in each of the sectors may neutralize a substantial part of the potential positive effects of the integration and regionalization of the market. Adequate concentration of policies could go a long way towards improving efficiency, lowering costs, and reducing investment needs, although it is not always realistic to expect to reach the optimum level.

Obviously, Latin American integration cannot be proposed as a substitute for the internal reforms needed to permit the effective incorporation into the market of large sectors which are still outside it at present. Integration among countries which enables more rapid and efficient progress to be made in the basic industries does represent, however, a very important complement to national efforts aimed at overcoming the internal economic and social problems of the countries.

5. *Some lessons of the Latin American integration experience*

Observation of the integration process in Latin America reveals some lessons of obvious interest.

The evolution of the Central American Common Market (CACM), which gives quite a clear picture of some of its possibilities and problems, shows three distinct stages. The first, covering the period 1961-1964, was characterized by the implementation of the reciprocal trade liberalization and tariff equalization programmes; during this period there was very rapid economic growth stimulated to a great extent by the industrial development fostered by area free trade and the protection of the common external tariff. The total gross domestic product rose by an average of 7 per cent per year, the industrial product by 9.9 per cent, and intra-zonal trade by 42.6 per cent. The period 1965-1968 was one of adjustment and occasional tension owing to the rapid growth of intra-zonal transactions: commercial imbalances began to appear between the Central American countries as a result of the different approaches of domestic policies and the varying initial levels of development, which enabled some of the countries to make better use than others of the advantages accruing from reciprocal trade, but intra-zonal trade continued to grow at an annual rate which was still very high, although somewhat lower than that of the preceding period. From 1969 onwards, however, there was a drop in intra-zonal trade and consequently also in industrial development: this crisis in the CACM, which helped to check the growth of intra-zonal trade, was largely due to inadequate progress in the concerted policy, which contained only a minimum of programming.

Unlike LAFTA, the growth of intra-area trade which took place in the Central American Common Market was based almost entirely on manufactures. Substitute industrialization developed strongly on the basis of free trade within the zone, aided by the common external tariff, and this also exerted some influence on structural change in industry. The integration process and the corresponding opening-up of intra-zonal trade gave rise to considerable import substitution in the case of goods originating in third countries, and as a result the traditional industries of the countries of the area were able to meet almost all of the increase in demand for products of this kind which occurred from 1961 onwards. The

degree of effective integration of the economies of the five countries of the Common Market in these sectors is now strong.

There has also been a vigorous expansion of intra-zonal trade in the industries producing intermediate goods and metal manufactures and machinery, accompanied by a high degree of import substitution and a major increase in production. There is also a high degree of integration in these sectors of production, but in this case the favourable effects are to be noted primarily in the production of consumer goods or those goods produced with more traditional techniques; the effects are much less marked in the case of capital goods, and those requiring more advanced technology. There have also been important changes in respect of toilet articles, pharmaceuticals, paints, other products of the parachechemical industries, and consumer durables. In the basic chemicals industry and other industries producing intermediate goods which require more advanced technology, as well as in those producing capital goods, however, the import substitution rate has been much lower and there has been only a limited degree of intra-zonal trade, the few exceptions to this state of affairs being found in the more highly programmed part of the integration policy (the integration industries), in such fields as the manufacture of insecticides, fertilizers and caustic soda.

The basic industries, whose important role in the general development process has been mentioned before, require a more systematic effort, since mere trade liberalization is not enough, even when accompanied by a common external tariff.

In other words, the integration process has made more headway through free trade than through a deliberate policy containing a considerable programming element, so that the most important economic advances stemming from integration have occurred precisely in the more traditional industries, for which the liberalization policy was most favourable. In contrast, the basic industries producing intermediate goods and capital goods—with the exception of those already mentioned—could not develop in a comparable manner, mainly because of the absence of a policy on the establishment of factories enjoying the concerted support of all the countries.

This does not diminish the importance of the increase in trade and the development of the metal manufactures industry producing consumer durables since it can be said that

this would not have been possible for countries like those in Central America without integration. A very large proportion of the industrialization and development shown by the Central American countries today is strictly due to integration.

Another important observation arising from examination of the Central American case concerns the distribution of the benefits of integration between the member countries of the CACM. These have all received clear and considerable benefits from the process, inasmuch as they have increased their exports of manufactures, achieved higher rates of industrial development and general economic development, and brought about important positive changes in their productive structure. The benefits have not been shared equally, however. Those countries which were in a better position to start with because they had a relatively more developed productive structure, and which also applied suitable policies to make better use of the advantages of the area market (El Salvador and Guatemala are particularly note-worthy in this connexion), have consistently shown positive balances in their intra-zonal trade, reflected in a relatively higher content of manufactures, and experienced more significant induced effects in their domestic economies. Those countries where conditions were less favourable—Honduras is the most striking example—have shown trade deficits with the area and experienced a much smaller degree of transformation in their trade structure, judging from the manufacturing content they have managed to incorporate in their exports. This is further proof that an integration policy based principally on free trade combined with a common external tariff, though it may favour all, tends to offer greater benefits to those economies which were initially better prepared to take advantage of liberalization. A judicious policy containing a good measure of programming, which has been relatively little used so far in Central America, since the planned programming elements have not been fully implemented, can help to equalize opportunities in favour of those countries which are initially less developed and compensate through special measures for their initial disadvantages stemming from a less evolved productive structure.

A few facts and important conclusions should also be mentioned as regards the Latin American Free Trade Association.

In spite of LAFTA's slow progress, which now amounts to virtual stagnation, the reci-

procal trade between the countries of the Association is nevertheless of great significance, more on account of the products involving a high degree of manufacturing which predominate in it than for its actual volume. Primary commodities or semi-manufactures still account for a large share of intra-zonal trade—a larger share than in Central America, of course—but the higher rate of growth of this trade is due at present to manufactures, and particularly to chemical and engineering products.

Furthermore, engineering and chemical products produced in each country of the Association account for a higher proportion of the total exports of each one of them under these headings. For example, exports of motor-vehicles to the rest of the area amount to 94.5 per cent of Argentina's total exports under this heading, and the figure is similar for Chile (though in this case the exports consist exclusively of components), while the figure for Brazil is 86 per cent. Almost 60 per cent of Argentina's exports of essential chemical products go to other countries of the area, and the proportion is also high among the other LAFTA members. In the most dynamic industries (engineering and some chemical products), even in the case of Argentina and Brazil the area market absorbs an appreciable share of total exports. In sectors where competition on the international market is particularly difficult, the area market plays a major part, since it assists the Latin American countries in the initial stages of their export efforts.

Some country figures for 1972 are given below by way of example.

Argentina exported 126 million dollars' worth of engineering products, 98 million of them to LAFTA. It may be noted that the following proportions of Argentina's specific exports went to LAFTA countries: almost all the motor vehicles (94.5 per cent); 72 per cent of the electrical products, and 74 per cent of the exports of boilers, machinery, and mechanical equipment and implements. Argentina's main client for many of these products was Chile, but sales to other countries of the Andean Group or Brazil were in many cases equal to or higher than those to Chile.

As regards Brazil's exports, in 1972 a very large share of total exports of chemical and engineering products also went to LAFTA countries. Of the exports of engineering products, 65 per cent were directed to LAFTA, including 58 per cent of Brazil's exports of

boilers, machinery, and mechanical equipment and implements, and its entire exports of mechanical and electric typewriters. Of the exports of motor vehicles, 86 per cent go to Latin American countries. Brazil's main Latin American client is Argentina, but in many cases imports by the countries of the Andean Group (in particular Chile and Peru) reach similar or even higher levels.

In brief, in respect of both Argentina and Brazil, LAFTA absorbs approximately 70 per cent of their exports of engineering products.

Another important aspect to which attention should be drawn in connexion with LAFTA is the trade resulting from complementarity agreements or from other instruments which, either because of their legal similarity or the nature of the goods covered by the agreements, may be considered very similar to these. As a whole, complementarity and other similar agreements are of considerable significance in connexion with the most important items of intra-zonal trade, in spite of the fact that their scope is limited to very specific sectors and that their progress has not been spectacular. Trade under these agreements accounts for some 100 million dollars per year, which represents 22 per cent of the total value of manufactures and semi-manufactures coming within the group of liberalized imports in zonal trade. In the case of Argentina and Brazil, 70 per

cent of their intra-zonal imports of chemical products are covered by complementarity agreements, and the proportions are also high in Mexico and Chile. Figures are also high for engineering products (around 50 per cent).

Another factor worthy of mention in connexion with LAFTA concerns the trade balances and the trade structure in different types of countries. The larger countries (Argentina, Brazil and Mexico) have tended to show consistently positive balances in their trade with the medium-sized and small countries, while the latter have in many cases shown deficits in their trade with the larger ones. The trade structures of these two types of countries also reflect different trends. Thus, for example, the countries of the present Andean Group have tended to specialize in exports to the larger countries of the Latin American area on the basis of their natural resources (non-ferrous metals (mainly copper), wood, pulp and paper, etc.) while they are net importers of more highly processed goods from the larger countries.

In conclusion, it may be pointed out that at present there is a definite trend towards reciprocal trade between neighbouring countries or those with common historical links, the ties between Latin American countries which do not share these features being generally weaker.

WIDENING OF THE CARIBBEAN INTEGRATION PROCESS¹

Preface

Consideration of measures for widening the geographical scope of the integration process in the Caribbean immediately brings into focus some questions of relationships of non-CARIFTA/CARICOM countries with the CARIFTA/CARICOM group. This note concentrates on the provisions and procedures relating to membership in, accession to, and

¹ This note on some institutional procedures and aspects of the Caribbean integration process was prepared by the Port-of-Spain Office of the Economic Commission for Latin America.

association with the Caribbean Community and the Caribbean Common Market.

The expressed interest of some non-CARIFTA/CARICOM countries has been "to seek Observer Status" presumably as an initial step in developing a close working relationship. It has to be appreciated however that the term "observer" is a generic one covering a wide range of situations. The object here is to clarify the arrangements in the CARIFTA/CARICOM framework, and to identify the possibilities for the development of relationships for initiating the integration process between the CARIFTA/CARICOM group and other Caribbean countries.

I. THE RELEVANT BACKGROUND

The integration process established by the English-speaking countries of the Caribbean has stimulated wide interest in the area, and there is substantial goodwill both among the participants and non-participants regarding widening the scope of integration. The Caribbean area, however, presents a variety of political, socio-economic, ethnic and language features influenced by its history and its former or present status of dependency. This considerable fragmentation of the Caribbean into language and culture groups, according to historical association with Metropolitan countries, presents some special problems for expanding the integration process among the countries of the area.

As a general rule, the isolation between English-speaking, Spanish-speaking, French-speaking and Dutch-speaking countries has been so strong that countries in any one group are largely ignorant about the economic and social characteristics of countries in the other groups. Aside from differences that derive from language, there have been few established communication links and no tradition of travel between the countries, so that the stock of everyday knowledge which populations usually have about neighbouring countries barely exists. It needs to be borne in mind too, that the Carib-

bean countries are not contiguous, and are in some cases separated by large expanses of sea.²

Governments in one culture group faced with making decisions regarding the development of economic relationships with countries in another culture group therefore have the initial problem of obtaining basic information and disseminating it within their own countries. Beyond this there is the need also for specific information as the basis for analysing and assessing the implications of alternative lines of action. In the Caribbean situation the problem of assessing the advantages and disadvantages of participation in integration is even more acute, because the fact-gathering systems are not highly organized; very little specific economic and social data is published; and what is published seldom circulates in other countries of even the same language group.

The first step therefore is to overcome the lack of basic information and general knowledge about the neighbouring countries, which is necessary in the process of informing pub-

² For a fuller exposition reference may be made to the paper "ECLA AND THE CARIBBEAN: Some thoughts on Strategy for the Future—ECLA/POS 72/6."

lic opinion. This of course has to be supplemented by the specific social and economic statistics required for detailed analysis, always bearing in mind that the statistical information, where it exists, is seldom on a common methodological basis.

Then there is the need for Governments to have the facility of access to specific explanation of the meaning and functioning of the

integration instruments. The physical aspect of making copies of the authenticated texts of the instruments in the original language widely available throughout the Caribbean area ought not be too difficult. However, there are still the problems relating to authenticating versions of the texts in other languages, bearing in mind that differences in legal codes make it difficult to transfer exact textual interpretations from one culture pattern to another.

II. TERMS OF THE INTEGRATION INSTRUMENTS

The provisions of the Caribbean Free Trade Association (CARIFTA) Agreement did not stipulate any particular set of qualifications for joining the Association.³ The concept was that any country whatever contemplating any kind of formal association with the CARIFTA group could enter into consultation with the Council of Ministers and from these consultations would evolve the suitable terms of association. The legal instruments of CARIFTA placed no limitation on the nature or scope of such consultations, which it was envisaged would be determined by the particular circumstances of the countries involved. The Council of CARIFTA was empowered by the Agreement to decide whether or not discussions should be initiated, to conduct negotiations if it was so decided, and to determine the procedures that would apply.

It is therefore worth noting that the provisions of the Agreement allowed not only for other countries to accede to CARIFTA, but also for the CARIFTA countries as a group to enter into any form of association that might be deemed desirable with any third country or group of third countries. In each case the CARIFTA Council decisions would reflect the reciprocal rights and obligations and the common actions that could be taken by the consulting or negotiating parties.

Only three cases were considered in terms of these CARIFTA provisions. The underlying circumstances were sufficiently different to result in two broad types of actions. These cases however stimulated close examination of the scope and acceptability of several types of relationships some of which were outlined later in this note. In the light of the results of the

³ Article 32 of the CARIFTA Agreement: the articles of the various instruments to which reference is made in this note are reproduced in the Appendix.

examination some specific decisions were taken and these are also indicated. The CARIFTA arrangements are however being superseded by the CARICOM provisions, and while the CARIFTA precedents are directly relevant in that many decisions will need to be taken over to CARICOM, any new cases that arise will be considered in the context of CARICOM provisions.⁴

The Treaty establishing the Caribbean Community (CARICOM) contains somewhat similar provisions to those that had been made in CARIFTA except that accession to any kind of membership is now specifically limited to countries in the Caribbean region. In this regard the CARICOM Treaty lists the countries that have always participated in the Commonwealth Caribbean Heads of Governments Conferences as those to which membership is automatically open. It also provides for accession of other Caribbean countries to full membership of the Community.⁵ As with the CARIFTA provisions, there is wide flexibility for negotiating the terms of accession to membership and the manner in which such terms would take effect. It has to be noted, however, that certain qualifications apply to membership in the Caribbean Community. The Conference of Heads of Governments need to be satisfied that the acceding country is . . . "able and willing to exercise the rights and assume the obligations of member-

⁴ The dates of withdrawal from CARIFTA notified in accordance with Article 33 are:

30 April 1974—Barbados, Guyana, Jamaica, Trinidad and Tobago

October 1974—Belize, Dominica, Grenada, St. Kitts-Nevis-Anguilla, St. Lucia, St. Vincent

January 1975—Montserrat

⁵ Articles 2 and 29 of the Treaty establishing the Caribbean Community.

ship".⁶ On the basis of this assessment the terms and conditions of membership would be negotiated.

To allow for the diverse situations of the Caribbean countries, this instrument provides for a variety of alternatives. Although it is envisaged that members of the Caribbean Community would also be members of the Caribbean Common Market, there is the scope for a country to be a member of the Community and not of the Common Market.⁷ There is the provision, too, that membership in the Community is possible even given differences in levels of constitutional competence.⁸

The CARICOM Treaty in addition provides for Associate Membership which is also limited geographically to the Caribbean region, the qualification being the same as for membership.⁹ In this case also the terms and conditions of association need to be negotiated with the Heads of Governments Conference. And it is worth noting that no specific link is made between associate membership in the Community, and membership or associate membership in the Common Market.

The Caribbean Common Market Agreement, which is annexed to the Caribbean Community Treaty, follows the pattern that membership is automatically open to the previous participants in CARIFTA.¹⁰ Also similarly as with the Community Treaty, membership in the Common Market is open to any Caribbean country. Here again there are alternatives, in that it is possible for a country to elect to be a member of the Caribbean Common Market but not of the Caribbean Community.¹¹ In addition there is provision for associate membership to the Common Market. It should be noted, too, that this is independent of associate membership in the Community.¹²

⁶ The wide variety of constitutional situations of the Caribbean countries always has to be borne in mind. CARIFTA included in its membership four fully independent countries, six partially independent states, and two territories in colonial status. Among the non-CARIFTA countries the situation is no less diverse, resulting in a variety of degrees of constitutional competence to undertake legal obligations.

⁷ Article 31(1) of the CARICOM Treaty.

⁸ Article 31(4) of the CARICOM Treaty.

⁹ Article 30 of the CARICOM Treaty.

¹⁰ It would be noted that the list of "founding" members for the Caribbean Community includes the Bahamas, while the similar list for the Caribbean Common Market does not include the Bahamas.

¹¹ Article 65(1) of the Common Market Agreement.

¹² Article 72 of the Common Market Agreement.

For both Membership and Associate Membership of the Common Market there is the qualification of "ability and willingness to exercise the rights and assume the obligations" of membership.

It is therefore possible to list a summary of alternative types of relationships provided in the CARICOM Treaty and the Common Market Agreement, none of which is conditional on any other:

- (i) Member of Community and Common Market;
- (ii) Member of Community;
- (iii) Associate Member of Community;
- (iv) Member of Common Market;
- (v) Associate Member of Common Market.

And it is immediately evident too that a range of combinations are also possible, which are not expressly ruled out by the integration instruments.

Few specific procedures are detailed in the instruments. In fact for both the Community and the Common Market mention is made only of application for membership or associate membership in which the option should be stipulated, the type of action that would be pursued at the level of the Heads of Governments Conference, and the specific act that would bring membership into effect.¹³ In arriving at the specific terms and conditions that would apply there is however the significant difference between membership and associate membership that in the case of the former it would be arrived at by negotiation, while for the latter it would be determined by the Heads of Governments Conference.¹⁴

Aside from the possible relationships already enumerated as deriving from the main instruments, there are still other possibilities for non-CARIFTA/CARICOM countries to develop integration relationships with the group within the workings of some supplementary agreements. While participation in most of the supplementary agreements is conditional on participation in the Common Market, there are

¹³ Obviously the only thing required to commence the process is a letter from the appropriate Ministry of an interested country addressed to the Conference through the CARICOM Secretariat.

¹⁴ This principle applies to both the Caribbean Community and the Caribbean Common Market.

others which allow for participation by non-CARIFTA/CARICOM countries.¹⁵

¹⁵ For example, Articles 1 and 26 of the Agreement on the Harmonization of Fiscal Incentives to Industry has the familiar pattern on listing the countries that participated in CARIFTA as those to which membership is automatically open, and making provision for accession by any other Caribbean country. Similarly, though not directly a part of the economic integration machinery, the Agreement establishing the Caribbean Development Bank does provide another avenue for the forging of working

relationships with the CARIFTA/CARICOM group. Colombia and Venezuela have acceded to membership in the Bank.

While bearing in mind the range of alternatives offered by the Community and Common Market instruments it is worthwhile to consider the precedents that were adopted in the CARIFTA context after examination of various constitutional, legal, diplomatic and political implications.

III. OBSERVER STATUS

Since the inception of CARIFTA non-participating governments interested in developing close working relationships with the group have invariably expressed this need in terms of "observer" status. Undoubtedly what is sought is a situation in which they can obtain, at first hand, information on the instruments and practice of the integration programme. In its common usage observer status applies to international conferences where participation is granted without the right to vote. However, it has not been the practice for integration groupings to invite non-member states to participate in meetings of the prime policy-making body. In fact if there is a general principle, then it would be that observer status as commonly understood is never granted to non-member states.¹⁶ It is therefore of significance to note the decisions on the cases that came before the CARIFTA Council.

The first concerned the only country that acceded to CARIFTA, Belize, a member of the Commonwealth Caribbean Heads of Governments Conference which had assisted in formulating the plans for establishing the Caribbean Free Trade Association, but had indicated then that the timing was not opportune for assuming membership in CARIFTA. When later the indication was given that negotiations for its accession should commence, the Council of CARIFTA invited that country to participate in its working sessions. The negotiations be-

tween Belize and the CARIFTA members were conducted within the framework of Council sessions as a particular agenda item, taken along with the other business of the Council. There is no doubt that in this way Belize gained an intensive insight into the interpretation and operation of the CARIFTA Agreement, and obtained a fuller understanding of the points of view and vital interests of individual member countries. On the other hand, the CARIFTA member countries were able to assess the needs of Belize, the benefits that might be gained on both sides, and the transitional arrangements that might be appropriate.

The other cases concerned countries that had no previous contact with the CARIFTA process, Surinam and the Netherlands Antilles. The reaction of the Council regarding countries that were not members of the Heads of Governments Conference was understandably quite different.¹⁷ Also, the consensus was that the CARIFTA arrangements should be made to operate smoothly before accession of non-Commonwealth Caribbean countries is negotiated. It was not until its Thirteenth Session the CARIFTA Council decided that thereafter applications for formal relationships to CARIFTA by non-members of the Heads of Governments Conference would be considered. Against this background it was inevitable that when there was the indication of interest by Surinam and the Netherlands Antilles in developing a working relationship with CARIFTA, a different formula had to be adopted. The decision was to establish a special relationship designated "Liaison Status" to enable Surinam and the Netherlands Antilles to meet their needs of obtaining the specialized legal, social and

¹⁶ Reference can be made to practice in the European Economic Community, the Latin American Free Trade Area, the Central American Common Market, the Andean Group, the East African Common Market. The international economic groupings do not make provision for non-member states to be admitted as observers because of the need, among other things, to preserve the confidentiality of their highly delicate negotiations and discussions on both intra-regional and extra-regional matters.

¹⁷ The Heads of Governments Conference is the supreme body above the Council of Ministers.

economic information about the integration process, that they need.¹⁸

¹⁸ This note is concerned primarily with relationship of other countries to the CARIFTA/CARICOM group. To complete the picture however it might be noted that the Council of Ministers also examined relationships with non-governmental regional bodies, and inter-governmental bodies both regional and non-regional. The decision was that observer status as commonly understood would be granted to two inter-governmental regional organizations—the East Caribbean Common Market and the West Indies Associated States Council of Ministers.

In more limited form observer status would be granted to the Caribbean Development Bank and the Caribbean Office of the Economic Commission for

Latin America, these cases being conditional on the participant being the President or Vice President, or Director or Deputy Director respectively, so long as these posts are held by nationals of CARIFTA/CARICOM countries.

As regards non-governmental regional organizations the decision was to establish a JOINT CONSULTATIVE GROUP consisting of four representatives each from the Caribbean Congress of Labour, the Caribbean Consumers Committee and the Caribbean Association of Industry and Commerce. This body meets annually with the Council of Ministers to exchange views on the progress and problems of the regional integration movement. The Group may also participate in some technical meetings, consult on a continuing basis with the Secretary-General and can make recommendations on any matter involving the functioning of the Caribbean Common Market.

IV. THE CARIFTA PRECEDENT—LIAISON STATUS

Through the arrangement of "Liaison Status", these countries have the facility to consult on a continuing basis with the Secretariat and with the Council of Ministers. However, though they do not attend regular Council sessions, special recognition had been given to their status as for example at the inauguration of the Caribbean Community.

In its operation the Representative of the non-CARIFTA/CARICOM Government can conduct discussions at Ministerial or at Secretariat level as the circumstances may require. The procedures imply that a meeting between the Representative and the CARIFTA/CARICOM Ministers would be convened on request for the purpose of discussing any aspect of closer economic relationship with the CARIFTA/CARICOM countries. For convenience, such meetings would be scheduled to take place prior to CARIFTA/CARICOM meetings when the Ministers will have gathered. Initially the scope of discussions might be wide-ranging, narrowing later to specific points of negotiation.

It is implicit in this arrangement that negotiations on accession would not be conducted within the normal agenda of CARIFTA/CARICOM sessions. However, the non-member State Representative may participate in the deliberations of technical committees and working groups subject to normal considerations regarding confidentiality of the proceedings.

There is no doubt that an important utility of Liaison Status for the non-CARIFTA/CARICOM countries is the scope it offers them for ascertaining on a "no commitment" basis, the most appropriate form of association with

the CARIFTA/CARICOM group. Within this arrangement careful assessment can be made of the transaction possibilities, the actual sectors in which there can be beneficial functional co-operation, and the desirable areas of policy co-ordination. It also allows time for understanding and appreciating the points of view of the other countries and the backgrounds from which they derive. In short, it is a pragmatic Caribbean creation to meet the unique, and extraordinary situation faced by countries in the Caribbean.

While the Council decisions taken under CARIFTA Agreement Article 32 made provision for Liaison Status with CARIFTA, no such provision yet exists in relation to CARICOM. However, the requirements for continuity from CARIFTA to CARICOM will probably make it necessary for the Ministerial Council in due course to ratify and transfer to CARICOM several decisions previously taken in the CARIFTA context: very probably included among such decisions would be those regarding Liaison Status, even if only on a transitory basis.

In view of the scope it offers for the countries of the Caribbean to establish contacts which by history they have been denied, there is a very strong case for retaining it as an initial contact relationship in the CARICOM context. The logic of the argument suggest that as both the CARICOM Treaty and the Common Market Agreement provide for full membership or associate membership, and since the option needs to be stated in the application, it would follow that the negotiations that might develop from Liaison Status would be directed, to one of these two forms of membership, or some combination of the two.

Several Caribbean countries have already endorsed the long-term policy objective of working towards full membership of all the Caribbean islands and Surinam in a Caribbean Community. It is not inconceivable therefore

that progress could be made by a series of steps as the obstacles are gradually removed; perhaps through Liaison Status and associate membership to full membership, in either or both the Community and the Common Market.

APPENDIX

Legal provisions regulating membership, accession and association

CARIBBEAN FREE TRADE ASSOCIATION AGREEMENT

Article 32

Joining Association

1. Any Territory, though it be not a signatory hereto, may participate in this Agreement, subject to prior approval of the Council of the Territory's participation in this Agreement on terms and conditions decided by the Council. The instrument duly signifying the agreement of the Government of the Territory to its participation in this Agreement on the terms and conditions decided as aforesaid shall be deposited with the Government of Antigua which shall notify all other Member Territories. This Agreement shall have effect in relation to the participating Territory as, and from the time, indicated in the Council's decision.

2. The Council may pursuant to any decision thereof in that behalf seek to procure the creation of an association consisting of Member Territories, and any other Territory, union of Territories, or international organization, and embodying such reciprocal rights and obligations, common actions and special procedures as may be appropriate.

Article 33

Withdrawal

Any Member Territory may withdraw from participation in this Agreement provided that the Government thereof gives twelve months' notice in writing to the Government of Antigua which shall notify the other Member Territories.

TREATY ESTABLISHING THE CARIBBEAN COMMUNITY

Article 2

Membership

1. Membership of the Community shall be open to:

- (a) (i) Antigua
- (ii) Bahamas
- (iii) Barbados
- (iv) Belize
- (v) Dominica
- (vi) Grenada

- (vii) Guyana
- (viii) Jamaica
- (ix) Montserrat
- (x) St. Kitts-Nevis-Anguilla
- (xi) St. Lucia
- (xii) St. Vincent
- (xiii) Trinidad and Tobago

(b) any other State of the Caribbean Region that is in the opinion of the Conference able and willing to exercise the rights and assume the obligations of membership in accordance with Article 29 of this Treaty.

2. States listed in paragraph 1 (a) of this Article the Governments of which sign this Treaty in accordance with Article 22 and ratify it in accordance with Article 23 shall become Member States of the Community.

Article 22

Signature

This Treaty shall be open for signature on the 4th July, 1973 by any State mentioned in paragraph 1 (a) of Article 2 of this Treaty.

Article 29

Accession to the Treaty

1. Any State or Territory of the Caribbean Region may apply to the Conference to become a member of the Community and may, if the Conference so decides, be admitted to membership in accordance with paragraph 2 of this Article.

2. Admission to membership shall be upon such terms and conditions as the Conference may decide and shall take effect from the date on which an appropriate instrument of accession is deposited with the Secretariat.

Article 30

Associate Membership

1. Any State which in the opinion of the Heads of Government Conference is qualified for membership of the Community in accordance with paragraph 1 (b) of Article 2 of this Treaty may, upon application to the Conference for associate membership of the Community, be admitted as an associate member of the Community in accordance with paragraph 2 of this Article.

2. On an application made under paragraph 1 of this Article the Conference shall determine the conditions under which the applicant State may be associated with the Community.

Article 31

Saving

1. Member States that are not also members of the Common Market shall not be entitled to participate in the decisions taken under the Treaty relating to the Common Market.

2. Decisions taken under this Treaty requiring such action shall be subject to the relevant constitutional procedures of the respective Member States.

3. Where necessary, Member States undertake to take steps as expeditiously as possible to give full effect in law to all decisions of the organs and institutions of the Community which are binding on them.

4. Member States shall not participate in decisions with respect to the subject of which they do not possess the necessary competence.

CARIBBEAN COMMON MARKET AGREEMENT

Article 2

Membership

1. (a) Membership of the Common Market shall be open to:

- (i) Antigua
- (ii) Barbados
- (iii) Belize
- (iv) Dominica
- (v) Grenada
- (vi) Guyana
- (vii) Jamaica
- (viii) Montserrat
- (ix) St. Kitts-Nevis-Anguilla
- (x) St. Lucia
- (xi) St. Vincent
- (xii) Trinidad and Tobago

(b) any other State of the Caribbean Region that is in the opinion of the Conference of Heads of Government (hereinafter referred to as the "Conference") mentioned in Article 6 of the Treaty establishing the Caribbean Community, able and willing to exercise the rights and assume the obligations of membership in accordance with Article 65 of this Annex.

2. States listed in paragraph 1 (a) of this Article the Governments of which are parties to the Treaty establishing the Caribbean Community (hereinafter referred to as the "Treaty") shall become members of the Common Market.

Article 65

Accession

1. A State mentioned in paragraph 1 (b) of Article 2 of this Annex may become a Member of the Common Market on such terms and conditions as the Conference may determine.

2. Any such State shall deposit on or before a date appointed by the Conference an instrument of accession with the Secretariat which shall transmit certified copies to the Government of each Member State.

3. Upon such deposit the State shall become a member of the Common Market on the appointed date.

Article 72

Associate Membership

1. Any state which in the opinion of the Conference is qualified for membership of the Common Market in accordance with Article 2.1 (b) of this Annex may, upon application to the Council for associate membership of the Common Market, be admitted as an associate member of the Common Market in accordance with paragraph 2 of this Article.

2. On any application made under paragraph 1 of this Article the Conference shall determine the conditions under which the applicant state may be associated with the Common Market.

SITUATION AND EVOLUTION OF AGRICULTURE AND FOOD SUPPLIES IN LATIN AMERICA

I. INTRODUCTION*

The five sections composing this document analyse a number of aspects of Latin American agriculture, with special emphasis on those which have been the most important recently and are likely to continue to be so in the immediate and near future.

Agriculture is of fundamental importance in the Latin American region because, with its close links to over-all economic development, it directly influences the fate of a large segment of the population through the jobs it supplies and the income it creates. Indirectly it affects the standard of living of the whole population because of the food and raw materials which it produces. Through the foreign exchange and the savings that it generates it contributes to the tax budget and to investment financing in different degrees depending on the country.

The agriculture of the region as it is today is the result of a complex of different events. In each country the agricultural sector has come to occupy a specific place and to play a specific role in the national economy. This place and role are periodically impinged upon by factors that the sector itself frequently cannot control or foresee. Ranging from climatic variations to changes in the harmony of world markets, such factors ultimately have a direct or indirect effect on agricultural activity. A suitable economic policy can help agriculture to pursue actions that will enable the best possible advantage to be drawn from the new national, regional and international economic situations and any disadvantages springing from them to be alleviated or reduced.

In each country the real roots of the present situation of agriculture lie in the quantity and quality of the physical resources of the various national territories and in the historic process that has determined and shaped the region's agrarian and institutional structures. It is pre-

cisely those structures that facilitate or impede the attainment by agriculture of its full share in the basic aim of development, namely the best possible use of the physical resources of the national territories on behalf of the whole population.

Nevertheless, it is clear that the evolution of agriculture is frequently affected by events on world markets. Countries are therefore vulnerable to such events according to the degree of dependence or vulnerability of their production and services sectors with respect to outside agencies. One factor is the amount of the national output set aside for foreign markets, while another is the importance of imports for the domestic supply of agricultural products.

This document is in five distinct sections. The first, which consists of this introduction, includes a summary of the main conclusions. The second situates agricultural activity within the general economic context, special attention being given to the role played by agriculture in the development of the countries of the region. The third covers the structure and evolution of agricultural production in recent years; an analysis is given by product in the crop-raising and livestock subsector and a general picture is drawn of the situation of fishery and forestry activities. The fourth concerns the availability of productive resources in the region and discusses some institutional questions. The fifth and last section briefly surveys the most important recent changes on the international markets for agricultural commodities and analyses the influence that such changes are exerting on the region.

Readers may be surprised by the structure, content and size of the document and may wonder why some aspects are analysed and not others, why so much importance is accorded to the international market situation and so little to the countries' home markets, and so on. Apart from the limitations of time

* This study was prepared by the Joint ECLA/FAO Agriculture Division.

and space in this type of conference document, the answer to such questions is simple. The fact that the document concentrates on the analysis of a few topics in no way means that other rural matters are not important for agricultural, forestry and fishery performance. For example, in the view of FAO, the conclusions reached by various studies on the interrelationship between demand and supply continue to be valid. The low standards of living of vast sectors of the Latin American population continue to distort and inhibit domestic demand, resulting in a negative effect on both the allocation and use of factors of production and, hence, on the size of output.

Another notable limitation concerns the danger entailed in referring to a Latin American agriculture. Although for purposes of presentation and in accordance with the practice of several authors it is possible to typify the different countries of the region on the basis of certain features of their agricultures, it should not be overlooked that such typifications ultimately involve a serious risk of distorting reality. The agricultural sector of each country in particular responds to concrete conditions as far as the structure of the economic, social and cultural system to which it belongs is concerned.

In regional studies, the need to aggregate certain indicators in order to find features common to two or more countries frequently leads to mistaken interpretations that do not tally with any of the realities examined. Many examples of this can be derived from a critical observation of each of the indicators commonly aggregated or compared. For Latin America, one can note the different definitions adopted by the countries in order to assess the size and structure of their respective rural and agricultural populations; the different criteria whereby levels of subsistence consumption are determined for commodities or population groups; the systems of relative and absolute prices whereby commodities and inputs are valued; systems of national accounts; and the quantity, quality and suitability of the sample of commodities whereby each of the different macro-economic indicators directly or indirectly related to the agricultural sector is updated from year to year.

Despite the limitations mentioned, the preparation of such documents led to some valuable conclusions. As a result of the assessment and analysis of production it was possible

to identify the commodities which, both at regional and at country level, determine the bulk of total agricultural production. Thus, by observing the evolution of just a few, already identified, commodities, one can explain much of the behaviour of the agricultural sector with respect not only to its own evolution but also to the factors of production which it involves. The apparent lack of diversification of agricultural production and of exports may be a vulnerable point of agriculture, but it also possesses the advantage of facilitating specialization and—through complementation—of becoming a strong spur to regional integration. With regard to growth on the regional level, both crop and livestock production attained an annual average of 3.7 per cent between 1964-1966 and 1970-1972. This average is only 0.8 per cent above population growth and is below the 4.0 per cent laid down in the International Development Strategy as a growth goal of agriculture for all the developing countries during the Second Development Decade.

For the region's agricultural potential, the picture is less bright than is frequently alleged, at least in the short and medium term. The land resource continues to be ill-assessed and experience in several countries shows that settlement and penetration processes have had meagre results. Intensification is thus the most practical way to increase agricultural production in most Latin American countries. More efficient use of the land resource in vast tracts of the region is being hampered by a growing trend for holdings to become ever smaller and by the persistence of traditional land-tenure structures. Closely linked with this, manpower appears to be taking the opposite direction to that of the land factor and is concentrating in the smaller categories of holding. Precisely because of the proliferation of tiny holdings (minifundia), the problem of manpower concentration and of rural under-employment could even be getting worse. Even the introduction of modern methods and capital formation in agriculture apparently continue to show a persistent tendency towards concentration in a few large production units. As regards institutions, it is clear that side by side with definite advances in research and extension the traditional defects of the public sector in the region remain. Particularly evident are the perennial weakness of agriculture ministries and the constraints on national and sectoral planning systems.

As is already known, several world events have caused an unprecedented rise in prices and a relative shortage of some agricultural commodities. This has produced different effects on the countries of the region depending on the dependence or vulnerability of their economies with respect to their foreign trade. An analysis of what has happened in recent years to Latin American external agricultural trade appears to show some neglect of opportunities for the region as a whole. Thus, although the region has benefited by a net gain in volume because of changes in international prices, agricultural exports have grown at an appreciably lower rate than world agricultural

trade, which means that Latin America is losing its relative position in world export trade. Recent international events provide Latin American countries with an opportunity to regain a stronger position as producers and exporters and to secure for regional integration, first, a more dynamic role in agricultural development and in the framing of joint economic and trade policies and, secondly, a strategic role in improving the levels of supply of agricultural commodities, especially food, for their populations. Against the background of a necessary world strategy of international agricultural adjustments, regional co-operation thus emerges as a suitable means of contributing to those ends.

II. THE AGRICULTURE SECTOR WITHIN THE GENERAL ECONOMIC CONTEXT

In order to situate agriculture in the general economic context in Latin America, it must first be pointed out that in 1972, 40 per cent of its inhabitants could be regarded as working in agriculture, i.e., about 120 million people, with an annual growth rate of 1.1 per cent in the last few years. The total population, which in 1972 was over 300 million inhabitants, is growing, however, at a rate of 2.9 per cent. As is known, the growth rate of the rural, and hence of the agricultural, population has been falling steadily. In 1960, the region's agricultural population accounted for over 50 per cent of the total population and was growing at an annual rate of approximately 1.6 per cent. (see table 1).

One of the primary functions of agricultural activity is to generate the income required by the population dependent on it for an acceptable standard of living. The inability of agriculture to fulfil this function is therefore considered in Latin America to be the main cause both of the poverty of the rural inhabitants and of the spontaneous movement of the population from the countryside to the towns.

It can be said that the region's economic structures are holding back a higher growth of production. The reason for this is that the necessary machinery is lacking for ensuring a proper balance between the different sectors of activity—a balance which should take the form either of a more uniform treatment as between agricultural and non-agricultural factors of production or of more equitable price relationships allowing greater flexibility in intra and intersectoral transfers.

Here the relative price structure has clearly been unfavourable to the agricultural sector, a situation which has been worsened by the inflation prevailing in most of the countries of the region.¹ Even with export commodities whose prices on the world market have risen substantially the rises have often not favoured farmers proportionately because of internal marketing and processing structures. In some cases, the responsibility lies with the processing industries and in others with the internal marketing enterprises and structures. In fact, these act as filters or shock-absorbers which prevent the new demand and new prices from impinging directly on the producing sector and which consequently stop the increased income resulting from the higher prices from being translated into real benefits to the producers and agricultural population in general. Frequently, moreover, the potential size of demand does not have its full effect on agriculture, owing more to the inherent rigidities of the processing and marketing sector than to the production sector.

A good example of this in the last few years is the beef situation in Central America. Initially the rise in external demand and the resulting price increase led to a restriction of domestic supply and to increased exports with signs of excessive inroads into the livestock. This stage was followed by an unprecedented growth of the meat processing industry (canning, sausage-making, freezing, etc.), which did not match the much weaker impact on the

¹ The strong rise undergone by the prices of various agricultural commodities on the world market may have temporarily modified these terms of trade.

Table 1
LATIN AMERICA: RELATIVE SITUATION OF AGRICULTURE^a
 (Percentages)

Country	Population	Agricultural GDP		Income	External trade		
	Agri-cultural population over total population	Agri-cultural GDP over total	Agricultural GDP per inhabitant over total GDP per inhabitant	Average agri-cultural income over total average income	Agri-cultural exports over total exports	Agri-cultural imports over total imports	Agri-cultural imports over agri-cultural exports
Argentina	14	12	82	85	84	7	9
Barbados	22	12	56	56	61	24	145
Bolivia	57	21	37	39	9	20	177
Brazil	42	18	43	46	67	9	18
Colombia	42	29	67	70	81	10	14
Costa Rica	45	22	49	55	75	13	26
Cuba	32	...	...	...	...	...	...
Chile	25	9	38	40	3	19	567
Ecuador	53	26	49	51	89	9	12
El Salvador	56	27	49	53	64	12	21
Guatemala	59	28	46	47	60	7	13
Guyana	32	20	63	63	...	...	...
Haiti	76	48	65	65	...	...	...
Honduras	69	35	50	52	79	10	13
Jamaica	25	9	37	37	...	...	...
Mexico	45	11	25	28	35	8	33
Nicaragua	54	28	51	54	75	10	16
Panama	42	18	44	44	64	11	56
Paraguay	52	34	64	67	67	8	13
Peru	44	16	37	40	18	18	84
Dominican Republic ...	59	22	34	35	84	12	17
Surinam	26	...	...	...	5	17	303
Trinidad and Tobago ..	16	7	43	43	8	10	159
Uruguay	16	20	123	126	...	...	25
Venezuela	20	7	28	29	1	11	615

SOURCE: ECLA, CELADE, FAO.

^a The data refer to the year 1972, except for external trade where they refer to 1971, with the ex-

ception of Colombia 1970, Chile 1969, Uruguay 1972 and Surinam 1970.

traditional livestock-raising sector in regard to prices and, hence, to incomes. In the third stage, through vertical integration, the processing industries have been extending their field of activity to livestock raising. This phenomenon, although it has led to a significant increase both in meat production and in the growth of livestock numbers, has simultaneously caused a tendency for the income from that greater activity to become concentrated in a few hands.

Thus, because of a sectoral situation unfavourable to agriculture, the value added by processing and marketing activities for the same products of agricultural origin appears disproportionately large compared with the value of their respective raw materials. In the over-all context, it is an accounting phenom-

enon resulting from the measurement and assessment of sectoral activities. Furthermore, the use of constant prices conceals these and other variations, thus greatly contributing to the distortion of the real position of each sector within the economy as a whole.

Nevertheless, even bearing in mind the points made in the previous paragraphs, there is no alternative but to measure the importance of the agricultural sector in the various countries of the region through its relative share in the formation of the total GDP. In 1972 the share was less than 7 per cent in Venezuela but nearly 35 per cent in Honduras. Because of the quicker growth of the other sectors this percentage has been falling in practically all countries (see table 2).

Table 2
LATIN AMERICA: AGRICULTURAL GDP AS PERCENTAGE OF TOTAL GDP
(Total GDP = 100)

<i>Country</i>	<i>1960</i>	<i>1965</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>
Argentina	16.6	16.0	13.5	12.6	11.6
Barbados ^{a b}	28.0	26.2	14.7	12.7	12.4
Bolivia	30.6	28.5	21.7	21.8	21.0
Brazil	22.1	23.5	19.1	19.1	18.0
Chile	34.1	31.1	29.7	28.8	28.5
Colombia	27.0	24.9	22.8	22.7	22.2
Costa Rica	12.1	10.2	9.8	9.6	9.3
Dominican Republic ...	36.8	33.9	29.1	27.7	25.8
Ecuador	32.4	28.6	27.3	27.3	27.2
El Salvador	30.4	28.9	27.5	27.5	27.5
Guatemala	26.5	24.8	19.3	20.5	20.0
Guyana ^a	48.5	50.2	49.0	49.2	48.2
Haiti	37.4	36.1	33.3	34.6	34.5
Honduras	12.0	11.6	8.3	9.2	9.1
Jamaica ^a	16.6	14.8	12.2	12.0	11.2
Mexico	30.4	32.3	29.9	28.5	27.8
Nicaragua	24.8	23.1	19.6	18.9	18.3
Panama	39.0	38.2	33.7	33.5	33.5
Paraguay	24.1	20.2	19.1	18.1	16.3
Peru	31.5	27.7	24.0	23.1	21.6
Trinidad and Tobago ^a ..	11.9	9.0	7.2	6.9	6.8
Uruguay	19.3	21.5	20.0	20.0	19.6
Venezuela	7.1	6.5	7.0	6.9	6.9

SOURCE: ECLA.

^a Computed from series at current prices.

^b Agricultural GDP includes sugar manufacture.

One of the most significant contributions of agriculture to the over-all economy of Latin America has undoubtedly been exports of agricultural commodities; in some countries these have been extremely dynamic. The income generated by this trade is of fundamental importance to the balance of payments of most countries of the area, with the exception of Venezuela, Chile, Bolivia and, to a lesser extent, Peru. Table 1 shows that the only countries which finance their imports of agricultural products from foreign exchange resources of non-agricultural origin are Barbados, Bolivia, Chile, Surinam, Trinidad and Tobago, and Venezuela. In most of the other countries the figure does not exceed 25 per cent, which clearly indicates that in most countries of the region exports of agricultural origin are key factors in financing the imports required both for the consumer market and for the development of other sectors.

Furthermore, the agricultural commodity export sector represents an activity with a savings capacity and contributes greatly to the

financing of the tax budget, hence its importance for the over-all development process of the countries. Although it is a sector which, from the point of view of treatment, is more closely connected with the tertiary sector of the economy, it cannot be overlooked that practically all its raw material comes from primary agricultural supply. Institutionally and organically the agricultural exporting sector is linked loosely or tightly to the primary sector, depending on the country. However, as already mentioned, together with the agricultural commodity processing sector the exporting tertiary sector acts as a filter that frequently prevents market situations from directly favouring the primary production sector.

If this function of agriculture is viewed another way, that is, from the viewpoint of the production activity corresponding to the goods destined for foreign markets, it appears relevant to recall the decisive part which is being and has been played by agricultural exporting in matters such as the introduction of technology into farming—whether such technology

is created, imported or adapted—or into the construction of physical infrastructure in rural areas. The past benefit of these two partial aspects of progress for integrated development is questionable. In many cases they have produced distortions and imbalances. Certainly, however, in any clear conception of economic and social development it must be borne in mind that the technology introduced and the infrastructure built and existing now form part of the assets of each of the countries and are therefore basic ingredients in the orchestration of agricultural policies.

Another important aspect which situates the agricultural sector in relation to over-all development is its capacity to use manpower productively and to condition rural living. The agricultural sector is frequently held responsible for not creating sufficient productive jobs to provide the whole rural population with suitable employment opportunities and, especially, to enable it to attain income levels sufficient to meet their basic needs. On this point too some observations are called for.

Apart from some periods and countries in which agricultural production grew at apparently satisfactory rates, virtually nowhere in the region has the development process produced an agricultural growth rate capable of eliminating the relative lag from which the inhabitants of rural areas suffer. The low average income of the active agricultural population² means that the real-income levels of the agricultural population are insufficient, a phenomenon aggravated by the unequal distribution of the benefits generated by agricultural activity. Expressed in 1960 dollars, the average income for the whole economy exceeded US \$1,500 a year only in Costa Rica, Panama, Argentina, Chile, Mexico, Uruguay and Venezuela. At the other extreme, in Honduras, Bolivia and Paraguay it did not even reach US \$1,000 a year. On the other hand, the average income from agricultural activity in all countries except Argentina and Uruguay is under US \$1,000.³ Table 1 contains, for the year 1972, a column showing the average agricultural income as a percentage of the total. On the basis of this parameter, in which the economically active population is regarded as fully employed, the relative disadvantage of the agricultural sector in Latin America vis-à-vis the other sectors is striking. Just as one

² Defined as the quotient of the GDP and the economically active population.

³ Argentina US \$2,400, Uruguay US \$2,260.

cannot refer to the unemployed urban population as unemployed industrial population, so is it incorrect to hold the agricultural sector responsible for rural unemployment.⁴ Rural unemployment, together with urban unemployment, is a problem that concerns the whole economy and not one particular sector. In economies without full employment, as is the case for all Latin American countries, each sector must make its contribution to solving this problem insofar as its own policies on production and the use of alternative technologies permit.

In Latin America, one of the serious structural imbalances in its economies lies precisely in the treatment of the various factors of production, the remuneration of which does not always accord with the real function of each in the fundamental objectives of the development process. The manpower factor, in particular, which is the most important because the remuneration of labour is ultimately part of the very purpose of development, is often ignored in the name of a misunderstood business efficiency. This directly affects job opportunities through the indiscriminate introduction of technology, and indirectly and for the same reason helps to accentuate income concentration and the exclusion of the rural community.

The foregoing considerations are proof of a serious under-employment problem in Latin American agriculture despite a heavy drain of rural population, most of which emigrates to the great metropolises. Altogether it is estimated that rural-urban migration represented a movement of around 18 million inhabitants between 1961 and 1970.

However, there are profound differences between countries. In only two countries of Latin America (Argentina and Uruguay) is an absolute clear fall recorded in the economically active agricultural population, while in another two (Chile and Venezuela) only a very slight fall or at least a halt is noticed. In the other countries the labour force continues to grow—in some cases, such as that of nearly all Central American countries, at fairly high rates.

Although existing information is fragmentary and the criteria for measuring the theoretical surplus of manpower in agriculture are weak, estimates have been made by PREALC⁵ which shed some light on the problem. According to

⁴ This does not mean that the Latin American agricultural sector cannot increase its manpower absorption level.

⁵ *Programa Regional del Empleo para América Latina y el Caribe* (Regional Employment Programme for Latin America and the Caribbean).

the estimates, the surplus for the region as a whole is a little over one third of the total agricultural labour force, although in some countries like Bolivia, Ecuador and Peru the figure is 50 per cent and in Central America and the Caribbean over 40 per cent.

Finally, in this conspectus of the contribution of agriculture to the development of the Latin American countries, some remarks should be made about the evolution of the food and nutrition situation. According to data from the Food Balance Sheets, Latin America improved its food situation between 1961 and 1970, the ratio of available calories to requirements having risen from index 100 to index 105. The average improvement of 5 per cent for the whole region means that a situation of relative balance between calorie supplies and requirements in 1961 became one of relative surplus in 1970.

Nevertheless, such regional averages conceal appreciable performance differences between the different countries of the region and, within each country, between the different socio-economic strata of the population. As can be seen from table 3, Paraguay with an average of 2,800 calories per person exceeded the estimated calorie requirements by around 21 per cent in 1970, while Haiti recorded a 24 per cent deficit. According to the data in table 3, only a few countries registered a significant improvement in their average nutritional situation. Of the 25 countries included in the table, 10 had an increase in the supply of calories per inhabitant exceeding 10 per cent, but among them are four countries (Bolivia, Ecuador, Guatemala and Honduras) in which, despite that improvement, the absolute average level in 1970 continued to be very low. By contrast, there was an absolute fall in five countries, although among them is Uruguay, which nevertheless had a fairly high level in 1970 of over 2,800 calories per day.

In accordance with the conclusions of specialist nutritional circles, the former emphasis on the protein content of the diet has shifted in recent years to what is now regarded as the main problem: the total amount of energy available. Although the magnitude of the protein problem may have lost some of its relevance following such scientific conclusions, it is interesting to see in table 3 that in 1970 there were still 17 Latin American countries with a *per capita* protein consumption of under 65 g a day, and that seven of them did not even have 55 g a day, the min-

imum being 40 g a day for Haiti. There were some countries like Surinam, Costa Rica, Guyana and Jamaica where a considerable increase in protein consumption took place during the last decade. In most of them, however, the variations were small and in some cases negative.

Insufficient information is available to determine with acceptable accuracy the number of persons suffering from malnutrition in Latin America. Nevertheless, estimates taken from current work place the figure at around 37 million persons, which would represent some 13 per cent of the region's total population. Furthermore, a review of the surveys on malnutrition among children under five years of age shows that, out of a total of 170,000 children examined in 20 Latin American countries, over 1 per cent suffered from severe malnutrition and about 15 per cent from moderate malnutrition.⁶ If these results are extrapolated to the whole of the child population in this age group it means that in the Latin American region there are some 600,000 severely malnourished children and nearly 7 million suffering from moderate malnutrition.

Although no systematic or complete surveys on the food consumption and nutritional status of the population by socio-economic strata have been performed in most Latin American countries, it is probable that all those 40 million cases of malnutrition in its various degrees occur in the poorer strata of the population, for studies in various parts of the world, including Latin America, bear convincing witness to the close relationship between levels of income, food consumption and nutrition. The problem is particularly serious for the poor in urban areas, especially those that have recently moved from the countryside. Without access to the subsistence production on which they depended during their days in the countryside and deprived of any regular or adequate income with which to buy enough food, such persons usually find themselves in a desperate plight. The rural poor, although slightly better placed than their urban counterparts, often display quite pronounced signs of malnutrition for the reasons mentioned. Those worst off are the landless labourers who have only temporary employment and hence a low and highly irregular income. Although not so badly off, mini-

⁶ J. M. Bengoa and G. Donoso, *Prevalence of protein-calorie malnutrition. Compilation of results from 101 surveys, 1963-1973*. To appear in the FAO Protein Advisory Group Bulletin now in press.

Table 3
LATIN AMERICA: AVERAGE FOOD SUPPLY PER INHABITANT
(in nutritional terms) — 1961 and 1970

Country	Population (thousands)		Calories (units/day)		Protein (g/day)		Calories. Supply over requirements %	
	1961	1970	1961	1970	1961	1970	1961	1970
Argentina	21 203	24 304	3 060	3 150	97.7	98.6	115	119
Bolivia	3 778	4 658	1 640	1 840	43.2	45.8	69	77
Brazil	71 845	93 029	2 430	2 600	60.7	63.3	102	109
Colombia	15 878	21 363	2 180	2 250	49.8	50.8	94	97
Costa Rica	1 281	1 798	2 200	2 470	54.9	63.0	98	110
Cuba	6 939	8 392	2 500	2 500	62.8	62.8	108	108
Chile	7 882	9 780	2 350	2 460	66.8	70.9	96	101
Ecuador	4 498	6 089	1 850	2 040	46.2	49.0	81	89
El Salvador	2 586	3 454	1 870	1 890	53.1	51.3	82	82
Guatemala	3 939	5 111	1 890	2 120	53.4	58.7	86	91
Guyana	580	744	2 290	2 080	35.1	47.4	101	92
Haiti	4 230	5 229	1 820	1 720	40.2	38.7	81	76
Honduras	2 003	2 704	1 900	2 180	52.5	57.7	84	96
Jamaica	1 646	1 996	1 940	2 300	46.0	56.0	87	103
Mexico	37 275	50 710	2 500	2 560	65.0	65.1	107	110
Nicaragua	1 548	2 021	2 100	2 380	67.8	70.1	93	106
Panama	1 096	1 468	2 560	2 520	59.1	60.5	111	109
Paraguay	1 785	2 406	2 580	2 800	76.1	73.5	112	121
Peru	10 323	13 587	2 290	2 310	61.0	61.5	97	98
Puerto Rico	2 409	2 842	2 530	2 530	67.3	67.3	112	112
Dominican Rep.	3 187	4 292	2 080	2 060	45.7	50.1	92	91
Surinam	299	393	1 910	2 330	44.2	56.1	84	103
Trinidad and Tobago	868	1 070	2 360	2 360	63.9	63.9	98	97
Uruguay	2 575	2 886	3 070	2 860	110.2	95.6	115	707
Venezuela	8 004	10 755	2 230	2 460	58.6	62.3	90	106
Latin America	217 657	280 672	2 410	2 510	63.7	65.0	100	105

SOURCE: FAO.

fundio operators and subsistence farmers in general are also in precarious circumstances. Because they have very little land, water, capital or technical knowledge, it is hard for them to feed their families properly even in years of good harvests and their nutritional level is liable to deteriorate sharply during poor harvest or in the pre-harvest periods when they have exhausted their supplies.

Deficiencies in food marketing aggravate the nutritional effects of the unequal patterns of income distribution prevailing in most Latin American countries. Such deficiencies tend to weigh more severely on the poor consumers—particularly those in the marginal areas of the major urban centres—because of higher prices, lower food quality and lack of suitable facilities for food purchase.

III. STRUCTURE AND EVOLUTION OF PRODUCTION

1. *Agricultural production*

According to the gross value of agricultural production, the five most important commodities—beef, milk, maize, coffee and pork—accounted for nearly 50 per cent of the regional total in 1972. Looking at the same five main commodities in the individual countries, it is found that the figures are somewhat over 50 per cent, except in Brazil and Ecuador where they are slightly lower. For the region as a whole, 16 commodities represent a little more than 80 per cent of the gross value of production (see table 4).⁷

As regards the end-use of regional agricultural production, around a quarter of this goes for export, while its composition by item is confined to half a dozen commodities. From a quantitative viewpoint the foregoing clearly points to a lack of diversification of agricultural production in Latin America.

From table 4 it can also be seen that Brazil, Mexico and Argentina contribute nearly two thirds of the total gross value of regional agricultural production, which indicates that in any analysis at regional level there is a risk that the regional aggregate will largely reflect the situation of those three countries.⁸

Table 5 was nevertheless drawn up, and it shows in aggregate form the recent trend of the physical volume of agricultural production for the period between 1964-1966, 1970-1972 and 1973 with its first provisional figures. The table indicates that average growth between 1964-1966 and 1970-1972 was 3.7 per cent a year both in crops and livestock products, and 3.1

per cent between 1972 and 1973, which in both cases is below the 4 per cent laid down in the International Development Strategy as a growth goal of agriculture for the whole of the developing countries during the Second Development Decade.

As regards crops, and still at the regional level, oilseeds are conspicuous by their rapid expansion. Among them are soya beans, whose rate of growth has been spectacular. Fruits also underwent rapid growth; for citrus fruits and bananas there is both a greater relative weight and a higher rate of increase. Sugar, which developed slowly until 1972, experienced a sudden expansion in 1973, which may be due to the excellent prices reached on world markets and to relatively satisfactory climatic conditions. Cereals, roots and pulses and vegetables maintained a modest rate of increase, with the possible exception of 1972 when production, especially of maize and potatoes, dropped following the drought that struck several countries in the region. However, 1973 production levels point to a good recovery for these items. Finally, vegetable fibres showed marked fluctuations due mainly to the instability of prices on the international market. For these commodities too a favourable tendency is observed in 1972 and 1973 which will probably increase in the future, particularly for cotton, through the effect which the energy crisis is having on the prices of synthetic fibres.

The livestock production subsector as a whole shows fairly steady growth in recent years, but this is not so for each item individually. For beef, the irregular trend of production registered between 1970 and 1973 can be largely ascribed to the animal-production cycle in the countries of the River Plate Basin. Pork and poultry, on the other hand, showed a strong and steady increase for that period.

⁷ The 16 commodities include without exception all the five most important commodities for each country individually.

⁸ These countries have 65 per cent of the regional population and 69 per cent of the potential agricultural land.

Table 4
LATIN AMERICA: RELATIVE SHARE OF THE FIVE PRINCIPAL COMMODITIES IN EACH COUNTRY
IN ACCORDANCE WITH THE GROSS VALUE OF AGRICULTURAL PRODUCTION IN 1972^a

	<i>Latin America</i>	<i>Costa Rica</i>	<i>El Salvador</i>	<i>Guatemala</i>	<i>Honduras</i>	<i>Nicaragua</i>	<i>Panama</i>	<i>Mexico</i>	<i>Argentina</i>	<i>Bolivia</i>	<i>Brasil</i>	<i>Colombia</i>	<i>Chile</i>	<i>Ecuador</i>	<i>Paraguay</i>	<i>Peru</i>	<i>Uruguay</i>	<i>Venezuela</i>
								<i>Gross value of production = 100</i>										
Beef	13.5	9			7	10	13	9	21	9	16	14	13	7	17		23	16
Milk	11.0	13	5	10	8	10	6	15	9		9	12	14	12	4	11		13
Maize	9.9		6	9	10			16	9	16	8				8	7		
Coffee	7.3	23	46	26	11	11						25						
Pork	5.4							11			6				4		5	
Eggs	4.9		5					9		4			9				5	8
Rice	4.3						8				8	5				8		
Cotton	4.3		14	14		30										8		
Bananas	4.3	31		9	33	6	41							12				6
Sugarcane	3.9	6					7					4		9				
Wheat	3.6								13				14					
Poultry	2.6									21								7
Potatoes	2.5									4				6		16		
Cassava	2.5														22			
Grapes	1.4								5				14					7
Wool	1.0																	15
Total selected products	82.4	82	76	67	69	67	75	60	57	54	47	60	64	46	55	50	55	50
Others	17.6	18	24	33	31	33	25	40	43	46	53	40	36	54	45	50	45	50
Gross value of production (millions of 1969 US \$)	19 425	389	416	479	271	295	182	3 674	2 640	214	6 119	1 940	441	407	184	757	195	822
Share by country (%)	100.0	2.0	2.1	2.5	1.4	1.5	0.9	18.9	13.6	1.1	31.6	10.0	2.3	2.1	0.9	3.9	1.0	4.2

^a At 1969 producer prices in each country.

Table 5
LATIN AMERICA: TREND OF THE PHYSICAL VOLUME OF AGRICULTURAL PRODUCTION
BY ITEMS OF PRODUCTION IN THE 1964-1966/1972 PERIOD

Products	Weight 1970-1972 (%)	Indexes				1973
		1970	1971	1972	1970-1972	
		1964-1966 = 100.0				
<i>Cereals</i>	20.0	112.0	126.4	115.1	121.2	123.1
Maize	9.9	125.0	128.6	110.4	121.4	126.2
Rice	4.3	119.7	114.0	119.4	117.7	126.7
Wheat	3.6	90.7	97.3	102.1	96.7	96.9
Others	2.2	164.4	188.0	148.9	167.1	142.2
<i>Roots and tubers</i>	5.6	121.3	120.5	118.7	120.1	121.9
Potatoes	2.5	122.7	116.5	109.6	116.2	112.6
Cassava	2.5	120.7	123.7	127.5	124.0	...
Sweet potatoes	0.6	119.2	124.4	120.3	121.3	...
<i>Pulses and vegetables</i>	5.4	113.4	118.3	118.6	116.7	120.8
Dried pulses	3.2	104.4	111.4	110.2	108.6	112.1
Vegetables	2.2	126.5	128.3	131.0	128.6	133.4
<i>Oilseeds^a</i>	3.6	159.9	177.8	248.9	195.5	271.3
Soybeans	0.9	300.2	396.0	683.6	459.9	...
Groundnuts	0.7	104.0	116.6	101.5	107.4	...
Sesame seed	0.4	126.4	116.9	96.8	113.4	...
Sunflower seed	0.3	157.7	115.0	116.1	129.5	...
Linseed	0.2	106.3	55.2	53.3	71.6	...
Castor oil seed	0.1	104.8	96.8	84.7	95.5	...
Rape seed	^b	104.2	122.2	116.7	113.9	...
Other oilseeds	1.0	102.8	100.3	117.5	106.9	...
<i>Sugar</i>	4.0	113.8	116.9	119.1	116.6	133.4
Sugarcane	3.9	111.9	115.4	118.4	115.2	...
Sugar beet	0.1	187.1	176.8	149.5	171.1	...
<i>Fruits</i>	8.9	124.6	133.0	132.7	130.1	131.9
Bananas and plantains	4.3	126.6	131.8	134.4	130.9	133.9
Citrus fruits	2.1	138.5	151.7	148.2	146.1	151.9
Grapes	1.4	100.9	117.7	108.7	109.1	111.1
Apples	0.2	105.7	103.8	119.9	109.9	83.5
Other fruits	0.9	123.9	124.3	128.5	125.5	...
<i>Beverages and tobacco</i>	9.1	101.0	135.4	127.6	121.2	114.9
Coffee	7.3	98.1	139.1	130.4	122.5	114.9
Cocoa	0.9	118.6	128.8	119.7	122.3	116.6
Tobacco	0.7	113.4	115.0	116.4	115.0	118.4
Tea and maté	0.2	88.4	93.8	95.2	92.5	95.2
<i>Vegetable fibres</i>	4.4	98.8	86.6	105.3	97.0	102.3
Cotton ^c	4.3	98.8	86.0	105.2	96.7	102.1
Other fibres	0.1	99.1	113.8	110.1	107.3	110.1
<i>Natural rubber</i>	0.1	90.3	87.1	93.5	90.3	93.5
<i>Meat</i>	22.0	123.9	120.4	127.7	124.1	130.5
Beef	13.5	123.0	112.1	120.6	118.6	...
Pork	5.4	117.6	125.0	130.7	124.4	...
Poultry	2.6	146.2	158.3	165.4	156.6	...
Sheep meat	0.5	99.5	98.9	96.7	98.4	...
<i>Other livestock products</i>	16.9	118.1	126.2	129.2	124.5	134.8
Milk and milk products	11.0	112.6	121.3	123.1	119.0	127.2
Eggs	4.9	135.3	144.4	152.0	143.9	161.0
Wool	1.0	94.9	90.4	84.8	90.1	90.5
Total crop production	61.1	115.2	126.9	127.6	124.3	130.7
Total livestock production	38.9	121.4	122.9	128.4	124.3	132.4
Total agricultural production	100.0	117.6	125.3	127.9	124.3	131.4

SOURCE: Joint ECLA/FAO Agriculture Division.
^a Excluding cottonseed.

^b Less than 0.1.
^c Includes cotton fibre and seed.

The same happened with the production of eggs and, to a lesser extent, milk. One explanation of the change in the structure by products of the livestock subsector may lie in the favourable conditions of the world beef market. This has led countries exporting this commodity to increase their foreign sales to the maximum despite the slow growth in their own production and sometimes with an appreciable drop in domestic consumption. In some cases, this drop has been due to specific policies for the replacement of red by white meat, which would explain the greater increase in the latter, while in other cases the cause may simply be the rise in prices of beef on domestic markets.

From a more detailed analysis which considers the crop-raising and livestock subsectors separately it is clear that, with the exception of Costa Rica, Bolivia, Colombia, Paraguay and Uruguay, the relative importance of products of animal origin is gradually increasing in the remaining countries (see table 6).

Taking the period between the years 1964-1966 and 1971-1973, the countries can be grouped into three categories on the basis of the growth of agricultural production (see table 7):

(a) Those with a rate of increase of agricultural production falling below population growth, i.e., Argentina, Barbados, Cuba, Chile, Ecuador, El Salvador, Guyana, Haiti, Jamaica, Mexico, Nicaragua, Paraguay, Peru and Uruguay;

(b) Those with a rate of increase of agricultural production exceeding population growth by not more than 1 per cent, i.e., Colombia, Guatemala and Venezuela;

(c) Countries with a rate of increase of agricultural production exceeding population growth by more than 1 per cent, i.e., Bolivia, Brazil, Costa Rica, Honduras, Panama, Dominican Republic, Surinam and Trinidad and Tobago.

Table 6
LATIN AMERICA^a: RELATIVE SHARE OF CROPS AND LIVESTOCK PRODUCTS
IN THE GROSS VALUE OF AGRICULTURAL PRODUCTION,
1964-1966 and 1970-1972
(At 1969 prices)

Country	Crops		Livestock products	
	1964-1966	1970-1972	1964-1966	1970-1972
	Gross value of agricultural production = 100			
Argentina	56	55	44	45
Bolivia	74	75	26	25
Brazil	62	61	38	39
Colombia	62	67	38	33
Costa Rica	71	72	29	28
Chile	49	47	51	53
Ecuador	75	72	25	28
El Salvador	84	84	16	16
Guatemala	76	74	24	26
Honduras	76	74	24	26
Mexico	60	55	40	45
Nicaragua	79	73	21	27
Panama	72	72	28	28
Paraguay	64	67	36	33
Peru	73	70	27	30
Uruguay	43	46	57	54
Venezuela	59	51	41	49
<i>Total</i>	62	61	38	39

SOURCE: Joint ECLA/FAO Agriculture Division.
^a Excluding the Caribbean countries.

Table 7
LATIN AMERICA: ANNUAL RATES OF INCREASE OF THE GROSS VALUE OF AGRICULTURAL PRODUCTION AND OF TOTAL POPULATION

(Period 1964-1966 to 1971-1973)

Country	Rates of annual increase 1964-1966 to 1971-1973	
	Gross value of agricultural production	Total population
Argentina	0.9	1.6
Barbados ^a	-2.6	1.0
Bolivia	4.1	2.4
Brazil	4.1	2.9
Colombia	3.9	3.5
Costa Rica	7.1	3.0
Cuba	0.9	3.0
Chile	0.5	2.2
Ecuador	1.5	3.4
El Salvador	2.6	3.4
Guatemala	3.3	2.9
Guyana ^a	0.3	2.8
Haiti	1.3	2.5
Honduras	5.6	3.4
Jamaica ^a	1.5	4.4
Mexico	2.7	3.5
Nicaragua	2.4	3.0
Panama	5.2	3.3
Paraguay	2.4	3.5
Peru	2.1	3.1
Dominican Republic ..	5.0	3.4
Surinam ^a	8.0	3.1
Trinidad and Tobago ^a	3.4	1.8
Uruguay	-1.9	1.2
Venezuela	3.9	3.4
<i>Total</i>	<i>2.6</i>	<i>2.9</i>

SOURCE: Joint ECLA/FAO Agriculture Division.
^aThe rate of annual increase of the gross value of agricultural production refers to the period 1964-1966 to 1970-1972.

If the three groups are weighted by their respective populations, it is found that 47 per cent of the Latin American population belonged in 1972 to the first group of countries, 14 per cent to the second group and 39 per cent to the third group, that is, those that recorded a satisfactory growth rate involving a real improvement in agricultural production per person.

2. Fishery activity

Besides those resources that are being fully exploited, such as the anchovy, south-eastern Pacific hake, the Brazil lobster, the schools of shrimp in a number of areas and various other

local species, the waters off the coasts of Latin America contain potentially important fishery resources which could be exploited much more intensively than at present. However, to do so it would be necessary to improve present production methods, infrastructure and distribution facilities and, in addition, to develop manpower training programmes.

Production for human consumption came to 1.5 million tons in 1971, representing an increase of 67 per cent over 1961. One positive fact is that within that total shellfish have doubled their share to a point where, together with tuna, they form the basis of valuable exports to North America, Europe and Japan.

Although this growth is significant, it should be borne in mind that fish landings in the region could be substantially increased if use were made of the fish caught with shrimps. The Mexican fleet alone, for example, discards half a million tons of fish a year.

The production of inland waters is still small but it is believed that it could be increased by exploiting existing resources and by intensifying aquaculture practices.

Table 8 shows some important aspects of the exploitation of fishery resources in Latin America. It will be seen, first of all, that much of the catch in the northern region, especially in the western-central Atlantic, is made by vessels from developed countries. In the southern areas, on the other hand, nearly all the catch is made by Latin American fishermen. Secondly, it will be observed that the estimated potential annual catch is immensely higher than the actual landings throughout the region, with the exception of the south-eastern Pacific, where the maximum limit of exploitation has been virtually reached. In this connexion, some sectors of opinion even consider that the catch level for anchovy in Peru in 1971 went beyond the limits of normal exploitation and contributed to the sharp fall in the volumes of production of fish oil and fish meal in 1972.

With regard to consumption per inhabitant, the Latin American average is below the world average. There are indeed appreciable variations between the countries of the region due to various factors, but in general consumption tends to be concentrated in coastal areas and in the large towns.

The main limitations on the expansion of consumption are the poor quality of the product due to poor handling and preservation practices, the inefficiency of distribution channels

Table 8
LATIN AMERICA: CATCHES IN 1971 AND ESTIMATED POTENTIAL
OF FISHING GROUNDS

Fishing grounds	Total (thousands of tons)	Catch		Estimated potential (thousands of tons) ^a
		Countries of the region (thousands of tons)	Percentage	
ATLANTIC				
Western-Central (Mexico, Central America, Caribbean)	1 620	422	25	7 260
ATLANTIC				
South-western	700	656	94	10 110
PACIFIC				
Eastern-Central	850	503	58	4 860
PACIFIC				
South-eastern	11 720	11 712	100	12 680
TOTAL	14 890	13 293	277	34 910

SOURCE: FAO, 1973.

^a The estimated potential includes appreciable quantities of fish caught at the same time as shrimp and currently not used.

and, in some countries, the comparatively lower prices of red meat. Despite these limitations a favourable attitude towards fish consumption is believed to exist in the region.

The canning industry has concentrated on supplying the markets where demand is lower, and is very unevenly developed owing mainly to the high cost of cans. The efficiency and productivity of most of the plants in the region are restricted by the irregular supply of good-quality raw material.

3. Forestry activity

Sawnwood production rose from 16.2 million m³ to 18.2 million m³ between 1970 and 1972, and of that total Brazil, Chile, Colombia and Mexico furnished 80 per cent. The increase in production is due mainly to Brazil, which is the region's main producer. Demand grew at a slightly lower rate than production, thus increasing the exportable balance from 550,000 m³ to 700,000 m³ between 1970 and 1972, a figure which will probably rise somewhat because of price rises on the world market in 1973.

Between 1970 and 1972 the production of board rose by 15 per cent to reach 2,300,000 m³. Apparent consumption showed an increase very similar to that of production.

Despite some advances in certain institutional aspects of the planning of natural areas and conservation of the environment, the trend in the forestry sector over the past three years has not been entirely satisfactory. In most countries the destructive practices which seriously jeopardize the future forest resources of many areas have continued and even possibly increased. Examples of such practices are excessive felling, selective removal of species, forest fires and lack of forest management.

Furthermore, very little advantage has been taken of the region's exceptional conditions for the establishment of forest plantations. At the tenth session of the Latin American Forestry Commission in 1967 it was stressed that to meet growing domestic requirements and increase exports of forest products it was necessary to have a minimum reforestation rate of 300,000 ha per year from then until 1985. Unfortunately, the average reforestation rate over the past five years has only been slightly over half of the target mentioned, and three quarters of the total reforestation has taken place in Brazil.

The positive aspects include advances in the management and development of national parks and similar reserves where management is geared to clear objectives on the national and local level. In countries like Argentina, Brazil,

Chile, Colombia, Costa Rica and Paraguay national parks are being set up on the basis of management plans. The United Nations has now recognized some 37 national parks in the region which are so managed as to guarantee genetic resources and ecosystems and which provide services for environmental research and analysis in natural areas.

Wildlife management has begun to show significant progress in the conservation of species, in the protection of endangered species and in the promotion of species suitable for industrial purposes. International agreements on the protection of endangered species like the felines, the current study of vicuña management and vicuña wool processing in Peru, the survey of guanaco wool processing in Argentina, the promotion of species in Colombia and the development of tourism based on aquatic fauna in Chubut, Argentina, all show great potential for the correct use of this resource and the management of marginal land.

Work has been stepped up on watershed management and flood control, stress being placed on the integration of engineering matters, soil and vegetation management and land use, as also on the creation of employment and community development.

With regard to educational matters, some forestry establishments in the region and schools

for foresters and technical engineers have been strengthened. Training programmes for forestry technicians and teachers have been implemented in subjects such as sawmilling, the management of national parks and woodland areas, and watershed management. The national forestry departments of several countries have provided middle-level training courses designed to train teams of forest and park wardens and foremen.

In forest administration, the promotion of a new generation of projects aimed at strengthening the forestry services has been noted with interest. Endeavours are likewise being made to improve planning approaches at the central, regional and zonal levels and at the level of specific projects, and to improve the formulation, control and evaluation of concrete projects related to the goals of socio-economic development plans.

Finally, it must be placed on record that Latin America as a whole is not only still failing to take advantage of a privileged situation in regard to the production and trade of forest products but is also falling behind in absolute terms. As an illustration, the negative net balance of the Latin American forestry sector vis-à-vis the rest of the world, which was US\$200 million in 1965, had more than doubled by 1972.

IV. PRODUCTIVE RESOURCES AND INSTITUTIONAL ASPECTS

1. Land

Increases in the crop-raising area form an important element in the growth of agricultural production in Latin America. The harvested area continues to expand, although for the region as a whole, with the exception of the Caribbean, a gradual decline in the rate of expansion can be noted. Thus, while the surface area grew by 2.6 per cent per year in the first five years of the 1960s, it grew at 1.3 per cent in the second five years, and in the first three years of the present decade by only 0.5 per cent a year (see table 9).

The amount of new land placed under cultivation varies with the country. Paraguay nearly doubled the cultivated area between 1960 and 1972. Nicaragua registered an increase of 80 per cent, while Brazil, Ecuador and Colombia had increases of some 40 per cent in the same period. Very different situations are found in Chile and Uruguay, where

a tendency towards a decrease in the harvested area is observed either because of a shifting of cereal crops towards more fertile areas in the first case or because of a reduction of the cereal and oilseed growing area in the second.

Of the 15.3 million additional cultivated hectares in 1972 compared with 1960, about 10 million hectares were in Brazil, 2 million in Mexico and 1 million in Colombia. In other words, 85 per cent of the increases in area were in the countries with the largest land and farming areas.

Cereals increased by 8.6 million hectares, oilseeds by 2.4 million and pulses by 1.8 million. As a whole, these three types of crops expanded their harvest areas by 12.7 million hectares between 1960 and 1972, representing 78 per cent of the total increase in the cultivated area.

Although one cannot say how far the expansion of the harvested area is due to the

Table 9
LATIN AMERICA: CULTIVATED AREA 1959-1972

Country	Cultivated area (thousands of ha)				Index (1959-1961 = 100)		
	1959- 1961	1964- 1966	1970	1972	1964- 1966	1970	1972
Argentina	14 498	14 745	15 058	15 257	101.7	103.9	105.0
Barbados	22	22	22	22	100.0	100.0	100.0
Bolivia	613	680	712	784	110.9	116.2	127.9
Brazil	25 152	29 441	33 881	35 006	117.1	134.7	139.2
Colombia	3 192	3 546	3 886	4 195	111.1	121.7	131.4
Costa Rica	321	401	345	321	124.9	107.5	100.0
Cuba	1 710	1 679	2 031	1 707	98.2	118.8	99.8
Chile	1 544	1 424	1 408	1 455	92.2	91.2	94.2
Ecuador	1 024	1 425	1 439	1 451	139.2	140.5	141.7
El Salvador	585	708	688	773	121.0	117.6	132.1
Guadeloupe	39	41	40	40	105.1	102.6	102.6
Guatemala	1 257	1 523	1 568	1 618	121.2	124.7	128.7
Guyana	134	174	159	162	129.9	118.7	120.9
Haiti	867	917	931	957	105.8	107.4	110.4
Honduras	618	617	619	641	99.8	100.2	103.7
British Honduras ...	11	13	24	24	118.2	218.2	218.2
Jamaica	124	134	116	119	108.1	93.5	96.0
Martinique	22	26	20	19	118.2	90.9	86.4
Mexico	11 458	14 225	13 957	13 459	124.1	121.8	117.5
Nicaragua	518	819	823	943	158.1	158.9	182.0
Panama	371	332	449	436	89.5	121.0	117.5
Paraguay	336	497	626	680	147.9	186.3	193.2
Peru	1 612	1 727	1 852	1 758	107.1	114.9	109.1
Puerto Rico	197	227	147	132	115.2	74.6	67.0
Dominican Republic .	625	618	672	671	98.9	107.5	107.4
Surinam	30	38	42	46	126.7	140.0	153.3
Trinidad and Tobago	71	75	74	76	105.6	104.2	107.0
Uruguay	1 415	1 231	1 033	826	87.0	73.0	58.4
Venezuela	1 250	1 332	1 449	1 442	106.6	115.9	115.4
<i>Total</i>	<i>69 616</i>	<i>78 637</i>	<i>84 039</i>	<i>84 875</i>	<i>113.0</i>	<i>120.7</i>	<i>121.9</i>

SOURCE: FAO Production Yearbooks.

advance of the agricultural frontier or to intensification in the use of already developed or occupied land, it can be presumed that this latter course has played the more important part in view of the slowness and difficulty of settling new lands. In any case, the land resource has clearly been fundamental in the growth of production. There is no doubt that it will continue to be so in future, and it is therefore useful to ascertain and evaluate the region's land potential as accurately as possible.

It has long been asserted that Latin America has an abundance of land. It has been calculated that only 30 per cent of the region is unsuitable for any type of agricultural use. Land possessing some potential amounts to 1,400 million hectares, of which 570 million is potentially arable land.⁹ For South America

⁹ FAO, *Indicative World Plan*, Rome, 1970.

it has been stated¹⁰ that the arable potential amounts to 524 million hectares, of which only some 120 million had been developed by 1970, i.e., no more than 23 per cent of that potential. Compared with the other world regions, this situation suggests that Latin America, and South America in particular, is the region where land potentials are least utilized.

Nevertheless, this general view of the agricultural potential of the region must be carefully considered. In the first place, exploration of land and water resources is quite inadequate. Much of the region has not even been surveyed, except through a number of exploratory evaluations. Studies or evaluations of the region's resources may dispel certain opinions and myths on this point. In any case, the partial advances

¹⁰ FAO, *Perspective Study of Agricultural Development for South America*, Rome, 1972.

that have been made warrant less optimism than hitherto. In Chile more detailed surveys have revealed a supply of arable land much below previous estimates. Likewise the studies leading up to the preparation by FAO and UNESCO of the South American section of the Soil Map of the World have brought out some serious drawbacks of the soils in this region, especially their low natural fertility. No less than 50 per cent of them display this quality. Another serious constraint is the scarcity of water. 20 per cent of South America has a semi-arid to arid climate in which un-irrigated agriculture is very risky or totally impossible. There are also extensive areas of steep land in the Andes constituting around 10 per cent of the continent.

The study quoted concludes that land that does not labour under the constraints mentioned forms less than 10 per cent of the total area.¹¹ A recent report on soil assessment and management in the Amazon region, which constitutes the largest and emptiest region of Latin America, likewise concludes that 90 per cent of the soils of the Amazon region are of low natural fertility.¹²

Furthermore, the processes of settling and exploiting potential agricultural land have been meeting with obstacles. The supposed large reserves of the region lie in semi-inaccessible zones. Investment needs both for basic infrastructure and for setting up new farms are immense. Research and technology suitable to the natural conditions of the areas to be settled are lacking. The systems of cultivation and the hazardous conditions under which new land is opened up frequently cause a systematic destruction of resources, giving rise to migratory agriculture which, far from extending the agricultural area, eliminates the possibility once and for all (see LARC/74/7, Environment and Development). In other cases, human or cultural situations pinning down the populations in certain surroundings prevent the formation of migratory currents towards emptier land. All these difficulties lead to very slow progress in settlement projects and to an insignificant role by the latter in agricultural activity as a whole.

Unsuccessful settlement experiments are repeatedly observed in Latin America. It is too

¹¹ FAO-UNESCO, *Soil Map of the World*, Volume IV, Paris, 1971, UNESCO.

¹² FAO, *Soil Assessment and Management in the Amazon Region*. FAO/UNDP Regional Project RLA 70/457, September 1972.

early to pass judgement on the land penetration and occupation programmes currently in progress in Brazil. Nevertheless, substantial advances are probably being achieved in the expansion of its agricultural frontier.

In general, the land easiest to prepare for agriculture has already been put under cultivation, so that it is useful to make a realistic assessment of the possibilities offered by the advance of the agricultural frontier for the region's agricultural development. In Central America great scope apparently exists for adding new land to agriculture, as only 40 per cent of it has been taken over by farms. However, of 21 million hectares of unfarmed land with some suitability for agriculture, only 2 per cent is suitable for intensive agricultural use. Furthermore, the possibility of increasing the agricultural or cultivated area is not equal in all countries. Some countries like Uruguay, Haiti, Chile, El Salvador and, to some extent, Mexico, finished taking over agricultural land some time ago and have little land left to settle. Thus, intensification appears the most feasible policy in the short and medium terms, not only for the countries mentioned but also for the whole region. Under-utilization of soil already under farming is a widespread phenomenon in Latin America, even in those countries with high densities of rural population. In the Andean subregion, for example, out of 20 million hectares of arable land only about 11 million hectares are cultivated every year, the rest being used for natural grazing land, for fallow and, to a very small extent, for seeded grassland.¹³

Under-utilization also occurs for irrigated land. It is known that grassland resources are utilized inefficiently and that there is a low livestock density per unit of available grassland, as well as a low proportion of seeded or upgraded grassland.

All countries in the region have been intensifying the use of the land already prepared and put under farming. However, the process is hampered by the outdated agrarian structures of the region. In general, as emerges from studies in various countries of the region, small producers make more intensive use of soil and water.

Generally speaking, the agrarian reform process has been unsuccessful in changing this picture of the tenure so characteristic of Latin

¹³ Board of the Cartagena Agreement, *Bases Generales para una Estrategia Subregional de Desarrollo*, March 1972.

America. The problem may even be becoming worse among "minifundio" operators or landless peasants because of the growing tendency towards the proliferation of minifundia. In Brazil, for example, according to the 1960 census figures, 1.5 million holdings (45 per cent of the total) had an area of less than 10 hectares. In 1970, on the other hand, the same types of holding numbered 2.5 million (51 per cent of the total). Nevertheless, because of the expansion of the total and cultivable area the average size did not fall.

For Mexico, the substantial increase in the number of plots can be seen as a process similar to the one already described. The Fifth Ejido Census of 1970 recorded 22,681 "ejidos" and agrarian communities (comunidades agrarias), or 10 per cent more than in 1960. The number of "ejido" plots regarded as individual farm units, however, came to 1.8 million whereas in 1960 they numbered only 1.5 million, an increase therefore of 23.4 per cent. Similarly, the total number of "ejidatarios" and "comuneros" amounted in 1970 to 2.2 million compared with 1.6 million in 1960. A similar phenomenon can be observed in the high regions of some Andean countries like Ecuador, Peru, Colombia and Bolivia.

2. Manpower

As regards manpower in agriculture, attention is attracted by a phenomenon of concentration similar to that occurring with land, although in this case on smaller holdings. In Central America, for example, over 90 per cent of the manpower is concentrated on holdings of under 35 hectares; something similar occurs in other countries of the region. It is useful to know the direction being taken by this process of manpower concentration. Population growth in agriculture continues in most of the countries, and the location of the population by size strata could indicate a worsening of the under-employment problem, especially if the increased population is dumped into a subsistence or "minifundio" type of agriculture. Thus, for Brazil, the 1960 Agricultural Census showed that 65.3 per cent of employed persons worked on holdings of less than 50 hectares, whereas in the 1970 census the figure is 73.7 per cent. The details given earlier on the increasing trend towards "minifundia" appear to agree with these figures on the location of the active population.

To appraise the significance of this situation as regards the combination of productive re-

sources, it is worth establishing certain relationships between land and human resources. The indicator chosen is the density of active persons per square kilometre of land on holdings, whether this be the total area of the farms or the density in relation to cultivable area. For Brazil, using the information from the 1970 census, the results are as follows:

Size stratum of holdings	Active persons per km ² of surface area	
	Total	Cultivable
10 hectares	55.1	91.5
10 to 100 hectares	8.8	40.1
Over 100 hectares	9.9	24.2

As can be seen, the differences in densities between the different size strata are considerable.¹⁴

This unequal distribution of land resources and manpower is a structural aspect of great significance in the development of Latin American agriculture and is the outcome of the present system of allocating and remunerating factors of production in most of the countries. Despite the abundance of both resources, the opposing directions in which they move prevent a more rational combination and utilization.

3. Technology

A significant aspect of the agricultures of the region is the growing use of modern technology in production processes. There are two features of this trend. The first is the improvement of infrastructure for technological development and the second is the relative concentration of the users of the new technologies, especially those requiring a greater supply of capital.

For infrastructure, the progress made in higher and post-graduate education, the development of research institutes and the increase in the resources allocated to research work have led to notable progress in the development and adaptation of technology. The use of new varieties and of hybrids has been generally introduced, especially for cereals, side by side with the adaptation of varieties from other regions. Progress has also been made in knowledge of problems relating to plant nutrition and fertilizer requirements in crop-raising. With regard to cattle and sheep raising, although techno-

¹⁴ The density of active persons on cultivable land on holdings of under 10 hectares could be compared with the situation in India or Pakistan where, in 1970, there was an average density of 89 and 68 active persons respectively per km² of arable land.

logical levels are generally low, advances have been made in some aspects of livestock management, among them the conduct of health campaigns, in particular against foot-and-mouth disease, which are carried out as part of co-ordinated action covering many countries of South America. Some progress is also observed in poultry and pig management and feeding.

Advances in fertilizer application, in the use of seeds of improved varieties and in the use of pesticides to control pests and diseases appear to be the principal factors that have contributed to increased yields. Progress has been made in the use of certified seeds in countries like Mexico, Chile, Argentina, Colombia and Brazil. Noteworthy increases in fertilizer consumption have taken place. In South America, for example, the consumption of NPK grew by 11.9 per cent a year between 1960 and 1970 and the trend has apparently been for this rate of increase to rise.¹⁵

Increasing mechanization is making it possible to place larger areas under cultivation, to intensify the use of agricultural land by double cropping and to obtain greater yields through timely and improved cultivation. Nevertheless, this is possibly one of the areas where research has devoted less effort to finding a suitable response to the many and various situations, both ecological and structural, of farms or cultivation systems. Generally speaking, with the possible exception of Argentina and to some extent Brazil, mechanization has been promoted and guided through the direct action of commercial firms linked to the manufacturing countries, with the use of special credits and without any particular interest in adapting equipment to the natural or socio-economic conditions of the region.

For various reasons, among them the increasing cost of equipment, the expansion of this mechanization process has been slowing down. Taking the number of tractors in service, one finds that their annual rate of increase, which was 12.7 per cent between 1950 and 1963, dropped to only 4.6 per cent between 1963 and 1970, and in recent years to less than 4 per cent. Although the average power of each tractor has increased, the drop in

¹⁵ Whereas consumption grew at 3.6 per cent a year between 1959 and 1961, between 1969 and 1971 it grew at 14.9 per cent a year, a figure exceeding that projected for 1970-1980 by FAO in the Perspective Study for South America (8 to 10 per cent a year). However, the recent increases in fertilizer prices, in conjunction with the rise in transport costs, will probably affect fertilizer consumption.

the rate of increase is clear and it is possible that the special circumstances of the world fuel market might affect that rate even further.

Various circumstances, both structural and economic, have prevented technological progress from being of general benefit to units of production as a whole. The level of knowledge and access to the market, to financing sources and to the actual sources of modern technologies have meant that the medium and large producer groups have drawn the most benefit from technological development to the detriment of small producers. Hence, research, extension services and credit must be endowed with special characteristics if larger groups of peasants are to be served.

One aspect of technological development that has caused growing concern in the region is the relationship between technology and employment. A distinction has rightly been drawn between intensive technologies causing changes in the use of manpower and those causing changes in the use of capital. The application of labour-displacing technologies created in countries where labour is scarce to countries with manifest difficulties in finding jobs for their human potential is now emerging in Latin America as a mistaken policy which does not accord either with the opportunity cost of the factors or with the idea of a harmonious form of development meeting the concept of equality of opportunity for all.

Technological development has been particularly slow in some areas, and efforts in this direction are not up to the requirements of the region. The following problem areas may be mentioned in particular:

(a) The reconnaissance of renewable natural resources and particularly the systematic evaluation of land resource capabilities. This lack is particularly notable in the Amazonian region and the humid tropics;

(b) The management and improvement of soils, irrigation and drainage, and flood-control systems;

(c) Problems of fertility and fertilization, particularly of certain types of soils such as those of volcanic origin in certain regions such as the Argentine pampas;

(d) Problems of upgrading cattle and management in general, particularly in regions like the Andes, have been dragging on for a long time without any meaningful research effort being made in their direction;

(e) Despite significant progress, particularly in grains, there are other crops where much remains to be done as regards the improvement of plant breeds.

4. *Capital*

The development of agriculture is generating major changes in combinations of factors of production. Capital requirements on and off the farm are considerable. Agriculture in which manual labour and natural factors are preponderant is yielding to operations in which skilled labour is employed and capital used more intensively. Unfortunately, at the country level there are no evaluations of the volume and structure of the capital used in the sector, and only partial knowledge of relations between the amount of capital committed to the production process and the flow of products from the sector. However, the available background information suggests slow and insufficient capital formation in the region's agriculture.

There are several reasons which could explain this situation, including the preferential attention given to other sectors, particularly industry, often to the detriment of agriculture and especially of investment programmes in the sector. It also often happens that official policies or intra- or intersectoral structures have themselves been designed to divert resources from agriculture into the urban and industrial sector. In many countries, agriculture remains the principal source of financing for general development (save, among other countries, in Venezuela and Chile) to the neglect of its own capital formation. These transfers are generally not direct, and indirect mechanisms are applied such as taxes, differential exchange rates, and intersectoral price relationships unfavourable to agriculture. In Venezuela, Bolivia and Chile, where petroleum and mining have been the major sources of revenue, agriculture has been virtually tax-exempt. In Argentina and Uruguay, on the other hand, its contribution through taxes is considerable. The improvement of policies on direct taxes, foreign exchange and, most particularly, intersectoral prices, can be a way to make the agricultural sector a more active participant in the generation of savings and the financing of development—its own included.

Structural conditions in the agriculture of the region, with its markedly uneven distribution of resources and incomes, remain a primary hindrance to capital formation in the sector. There still persist among landowners

consumption patterns unsuited to the level of development of the region and to the need of savings and investment in the sector. This, among other reasons, is why agrarian reform programmes are especially in need of financial support. They represent a valuable opportunity not only to redistribute the land and its fruits, but also to speed up the investment process, particularly on the more inefficient and extensive farms affected by the reform.

Traditional and at times inefficient marketing and credit systems also help to impound and divert resources and surpluses that producers could capitalize to some extent. In certain cases, the plundering of producers is such as even to impair the possibilities of improving the incomes of agrarian reform beneficiaries themselves, thus nullifying in greater or lesser degree the favourable effect of land distribution.

In the production systems prevailing in the region, uneven income distribution is the end result of a chain of causes whose links are intimately associated with concentration of the factors of production, labour alone excepted. Among the various types of agricultural producers, the most intensive users of capital in agriculture are those who control farms producing for commerce, which are strongly integrated into the market and run by dynamic management techniques. The contribution of this relatively small group of producers to agricultural production in the region may be on the increase, but it is equally probable that the bulk of the relatively limited opportunities for capital formation in the region are concentrated in this group. Because of the foregoing, and of the circumstance that these farms usually employ labour-displacing technologies, the modernization process, as it is going forward in Latin America, is held to accentuate the uneven income distribution that prevails in the rural sector of most Latin American countries.¹⁶

On the whole, there is a tendency for the public sector to play an increasingly important role in agricultural financing and investment in the region. The contribution of Governments has been particularly active in marketing, as also in irrigation investments and infrastructural works in general.

Nevertheless, the public sector is still not contributing enough to give bolder momentum to agricultural development, and of course Governments have been unable to come up with

¹⁶ This phenomenon is aggravated by the limited mobility of peasant labour.

the financing needed to expand medium- and long-term credit systems for the purpose of stimulating farm-level investment. The effort of the private sector is altogether insufficient, and is a very difficult one for small farmers to make. In the latter case, non-monetary investment, particularly in land improvements and infrastructural works, could be much more significant if government stimulation were more positive and peasant associations more energetic.

5. Institutional aspects

There has been repeated emphasis on the importance of land tenure structures for the development of agriculture in the region. The most widely accepted description has been the one of the latifundium-minifundium complex which, in addition to highlighting a series of interrelationships, brings out the existing inequality in the distribution of resources and opportunities. This situation was analysed with special intensity during the sixties and the result was an awakening to the direct functional relationship between land tenure structures and the behaviour of the agrarian sector and of the economy as a whole. A positive result has been that most Latin American countries now have agrarian reform laws and institutes or agencies to apply them.

The number of people who have benefited under agrarian reforms during the last decade throughout the region may be estimated at 1.0 to 1.2 million peasant families (more than half of them Mexican and Venezuelan), defined as landless people who have obtained possession or effective access to agricultural land through programmes carried out by government agencies.¹⁷ This is equivalent to an average of about 100,000 families a year. This figure may be assumed to have doubled during the early years of the current decade, particularly because of the acceleration of agrarian reform processes in Chile and Peru, continuation of the process in Bolivia, Mexico and Venezuela, and the measures recently initiated in Colombia, Ecuador and Panama. However, the gains made on the regional level are still nowhere near to constituting a satisfactory goal, as can be concluded on the basis of two highly eloquent indicators: the number of potential beneficiaries, who in the middle of the sixties were estimated at 10 million landless peasant families, and the growth of the rural labour force, which

is proceeding at a rate of about 500,000 workers a year.

The experience that has built up is valuable, however, and can be used to develop guidelines on how to enhance the effectiveness of agrarian reform processes and thereby avoid errors and temporarily depressive effects on production. In this connexion it may be said that the arguments advanced to depict the results of agrarian reforms as chaotic are often attempts to lessen public backing and political support for a process that has proven its indispensability for the development of the countries of the region.

In most of the countries that have carried out agrarian reforms or passed laws for the purpose, attempts have been made to change the institutions providing support to agricultural production. The same thing is true in countries with agricultural modernization programmes. Almost all the countries have been improving their agricultural research by streamlining it and surmounting many bureaucratic hurdles, and resources have been assigned to it in volumes which, though still insufficient to cover the needs of the countries of the region for the adaptation or generation of technology, are nevertheless on the increase. There has also been a very important effort in the advanced training of research workers. A variety of problems persist, however, such as the traditional instability of research staff, the lack of co-ordination between government institutes and private or university institutes, the absence of priorities for research work and, lastly, the relative lack of connexion between the world of research and the real-life problems of agriculture. The isolation is not peculiar to research, but characterizes most of the services performing support functions in agriculture.

Since the last decade, and with greater emphasis in the present one, extension work has been undergoing a thorough overhaul of both its concepts and operating methods. The new needs generated by agrarian reform processes and by programmes of assistance to more extensive groups of small farmers or peasants have sparked a reappraisal of the objectives of extension services. These have traditionally been oriented towards the dissemination of certain improved production practices that have benefited only those very few farmers who were in a position to meet all requirements for the development of those innovations. Technological change that will be of use to broad peasant groups cannot be generated in isolation,

¹⁷ Inter-American Development Bank, *Programa Socio-Económico en América Latina, 1970*.

without modifying related aspects such as the provision of inputs or financing and marketing problems. Thus, extension work is starting to reorient itself towards a broader vision in which it tackles real situations that condition the development of agricultural production. Moreover, the need to cover extensive groups of peasants has led to a search for more supple working procedures that will encourage the peasants themselves to participate through their associations.

It has been seen that, like extension work, other institutions such as credit are subject to limitations both in the volume of their resources and in the uses to which they can be put. Democratization of credit entails an overhaul of the traditional machinery of banks and a reconsideration of the guarantees they require. It is further necessary to underscore that it can be important to channel credit towards farmers' associations such as co-operatives or other associations through which, as through extension services, the activities of financing agencies are multiplied.

One institutional aspect of most interesting implications for the future of the region's agriculture is the formation of small farmers' associations and co-operatives, whose development is linked to a great extent to the actual progress made in agrarian reform processes. Support services find in these associations the proper atmosphere for a complementation of efforts. Most widespread are those formed by medium- and small-scale farmers. Wage-earners' organizations are rarer and, moreover, it is found to be very difficult for minifundio owners or landless peasants to unite into associations. To some extent this is due to their subsistence situation, in which problems of marketing, the introduction of technical advances and financing have the most important implications. With regard to social and cultural services, it may be said that, with the exception of primary schooling, which is tending to spread to the Latin American countryside,¹⁸ the other services remain concentrated in urban areas.

Despite the gains reported, certain traditional features persist in Latin American agrarian structures. It has been indicated that those of land use and tenure have changed relatively little and, besides, that what change there has been has benefited limited sectors of the rural

population, leaving the peasant majorities of Latin America out in the cold. Moreover, the changes made in public services have not succeeded in conquering the traditional anarchy of relations among the government agencies. The enormous difficulty of co-ordinating their at times duplicated and even triplicated functions and the bureaucratic evils that pervade them (centralization and concentration of staff in the more heavily populated urban areas) have thwarted efforts to extend those services to the bulk of the peasant population. The weakness of ministries of agriculture is one of the most common features of Latin American institutions. Noteworthy in this connexion is the attempt at decentralization made by the Ministry of Agricultural Development of Panama.

One step forward has been the establishment of planning bureaux at the level of agriculture ministries in several countries. Both the proposal of strategies and the design of institutional changes as part of a development process require an efficient planning system. Generally speaking, however, the agricultural planning units set up have not yet performed effectively in their assigned functions. Foremost among the more frequent short-comings is the difficulty that planners for the agricultural sector find in considering the implications of general development strategies for agriculture.

Moreover, agricultural planning units are cut off from a large number of variables that are managed from the public sector and which greatly influence the agricultural sector (policies on general prices, agricultural prices, financial and fiscal matters, foreign trade, etc.).

Planning has sometimes been confined to a mere exercise in harmonizing supply and demand projections, which, though it does serve as a reference point, falls short of constituting the development of coherent strategies or policies involving the operating agencies. The executive levels are very often left out of the planning process, since the services act in response to immediate situations rather than to any medium- or long-term view. Thus planning remains in a sphere where it is even extraneous to the agricultural public sector as a whole, to say nothing, of course, of operations at the regional or more local levels in any country.

Another situation observed in some countries is the difficulty of incorporating structural changes into the planning process as they take place, which gives rise to the impression that

¹⁸ Though its content has not changed and is somewhat extraneous to rural life itself.

they are two unrelated and mutually independent domains. Something similar happens in the problem of rural underemployment, despite growing awareness of the importance of this aspect.

The progress made towards setting up agricultural planning units should be followed up with a special effort to advance towards the design of a planning system that, in addition to tackling over-all development strategies, can link up with and influence the policy-making

machinery while at the same time committing both the agencies operating in the sector and the regional farmers' associations and peasants' unions. With this end in view, planning should develop progressively into a multisectorally integrated process capable of penetrating into and orienting both policies and programmes in progress, and of planning for the development of the agricultural sector in the medium or long term, with special emphasis on central conflicts and problems.

V. INTERNATIONAL MARKETS AND AGRICULTURE IN THE REGION

1. *Recent changes in international markets and national economic policies*

In the last few years the international scene has witnessed a series of events of unwonted magnitude. The influence of these events on the agricultural economies of the region varies with their degree or level of dependence on world markets. Owing to a variety of causes, there have been serious drops in production which have perforce led to losses of reserves and, of course, to sharp price rises. This has particularly affected, among other commodities, grain and meat. There have also been substantial changes in the supply, demand and prices of some protein inputs, such as fishmeal, oilseed and oilcake.

On the grain market, the smaller grain harvest of 1972-1973, USSR purchases in 1972 and an unremitting demand for cattle feed in the industrialized countries converted a situation of relative abundance into one of scarcity. As a result, grain export prices nearly tripled, and stocks sank to their lowest level since the fifties. Although more encouraging production is expected, how close the supply comes to normal levels will largely depend on the size of the current harvest. Moreover, it is probable that food aid in grains will drop sharply and that exporters will shift substantial portions of their concessional sales to the commercial area.

Up to mid-1973, meat prices remained high and imports rose. The present situation, however, points to a sharp increase in cattle stocks and an appreciable drop of demand in importing countries. This has led some industrialized countries to adopt stiff protectionist measures to protect their own production and maintain remunerative prices.

Fishery production was affected by ecological problems, particularly in the anchoveta spawn-

ing grounds, a phenomenon that was probably associated with overfishing of this species. Catches of this fish contracted in 1972 to one third of the volume of 1971, which reduced the supply of fishmeal for use as a protein supplement in livestock feeds in the industrialized countries. Because of this, the demand for and prices of soybean and other oilseeds rose steeply, and consumers had to pay more for meats and products based on meat and eggs.

Another important aspect, particularly in connexion with the short-term food outlook, is the limited world supply of fertilizers, partly in consequence of the energy crisis. The present situation is characterized by the scarcity, high prices and sustained international demand for this input. Since much of the fertilizer used in the region is imported from developed countries, the immediate prospects for Latin America are not very encouraging and, in particular, the problem of the supply of nitrogenous and phosphatic fertilizers is expected to worsen, at least until the usable installed capacity draws abreast of demand. However, owing to the high cost of industrial plant, the rising raw material prices, and the increased cost of transport, this process may continue to lag.

Prices are on the rise not only for fertilizers, but for almost all non-traditional agricultural inputs as well. If these high prices persist over time, the pace of production growth will probably be affected for, as has been seen, there are unmistakable signs that the pace of expansion of areas under cultivation is abating.

New situations are many and deep-seated, and the search for their causes would entail the analysis of phenomena ranging from inflation in the developed countries and the monetary crisis—with the consequent exchange rate variations—to the present severe energy crisis. The fact is that, in the short run, the Latin

American countries face the certain prospect of significant variations in the international prices of both their export commodities and of the goods and services they must import.

With more particular reference to the agricultural sector, it is clear that countries endowed with a wider variety of natural resources are less dependent on foreign trade than those—like the Central American countries—whose natural resources are more limited. This does not necessarily imply that the impact of price fluctuations in world markets is less significant in countries doing a small volume of trade than in those whose trade volume is greater, but an examination of the actual situation does justify the assertion that the closer the relationship between foreign trade and domestic production in a given country, the more vulnerable and dependent it is.

There is, however, another connexion between the world market and Latin American agriculture which, in view of its nature, could be regarded as an indirect aspect, and this is the effect of that trade on the balance of payments. Indeed, as previously mentioned, agriculture has generated—and will go on generating—an important share of the region's foreign exchange earnings. At the same time, either because of its growing need for imported inputs or because of its incapacity to turn out domestically the products needed on the domestic market, the agricultural sector also constitutes, in greater or lesser degree from one country to another, a drain on the available foreign exchange.

It is hence of great interest to determine the extent to which the national economies of the countries of the region are vulnerable to or dependent on changes in the world market. With reference to the agricultural sector, vulnerability or dependence varies directly, of course, with the weight to be assigned in total agricultural production to production for export. Similarly, depending on the weight of agricultural imports relative to the domestic availability of those products, any change either in external supply or in international prices is bound to make itself felt, through the domestic markets, on the economy as a whole (see table 10).

On the export side, whereas in Bolivia, Chile and Venezuela agricultural production for export does not exceed 4 per cent of the gross value of production, in other countries—those of Central America, for example—the proportion rises to about 50 per cent.

Table 10

LATIN AMERICA^a: DEPENDENCE OF THE AGRICULTURAL SECTOR ON THE WORLD MARKET, 1970

(Percentages)

	Agricultural exports	Agricultural imports
	Gross value of production	Domestic supply
Argentina	32.0	2.6
Bolivia	2.3	14.1
Brazil	13.4	6.1
Chile	2.3	18.6
Colombia	15.9	7.3
Costa Rica	49.0	16.7
Ecuador	15.0	6.2
El Salvador	58.0	17.2
Guatemala	46.0	16.3
Honduras	47.0	18.4
Mexico	10.0	4.0
Nicaragua	57.0	19.0
Panama	31.8	14.6
Paraguay	14.1	3.5
Peru	9.9	18.7
Uruguay	28.4	13.2
Venezuela	4.0	20.1

SOURCE: Joint FAO/ECLA Agriculture Division. FAO information from EPDASA and PACA was used for South America and Central America.

^a Excluding the Caribbean area.

On the import side the difference is less, but it is still of some magnitude. Generally speaking, up to 1970 there was no country in the region in which the value of agricultural imports exceeded 20 per cent of the corresponding value of the available domestic supplies.¹⁹ In the larger countries—Argentina, Brazil, Colombia and Mexico—and in Ecuador, the proportion is less than 7 per cent.

It may be concluded that, if concrete and timely policies and machinery are not established, variations in international prices will tend to effect in some degree domestic prices in the region, and indeed this is already visibly happening in the case of several basic commodities.

Now, it is clear that government intervention in any form gives rise to shifts in the equilibrium between supply and demand to a level different from that which would be reached spontaneously in a free trade system. For example, if exports are taxed, the supply to the

¹⁹ Available partial figures indicate, however, that in recent years the percentage has been considerably exceeded in some countries of the region.

domestic market will tend to increase in the short run. It may be mentioned by way of illustration that this is what happened in Brazil in late 1973 when a tax was imposed on beef exports (*confisco cambial*) and a ceiling was set on the domestic price of cattle on the hoof in order to ensure the domestic supply of this commodity, which weighs heavily in the cost-of-living index.

Similarly, a subsidy on imports of a given commodity that resulted in a lowering of its domestic price would generate an increase in demand and, as a dynamic effect, part of the resources utilized to produce it might be shifted to the production of other exportable items. Something of the sort happens when commodities are imported under concessional terms, as certain grains and milk products have been. Well-known cases are those of wheat and of butter and cheeses in Colombia and Ecuador, respectively, where imports of those products from developed countries, often at dumping prices, not only hurt domestic production but also blocked opportunities for regional trade.

The foregoing considerations are only some of the many examples which illustrate in a general way the many interconnexions that can exist among apparently unrelated measures and which are commonly observed in the agricultural policies of the countries of the region. Changes on foreign markets undoubtedly exert immediate and direct effects on agricultural activity, but at the same time any measure taken to control those effects itself sets off a train of events. What is more, these indirect effects often turn out to be greater, more dynamic, and at times more pernicious than the direct effects they are intended to counter. It is clear that, in the final analysis, these results vary in proportion as the planning agencies of the countries are run more or less efficiently and pragmatically.

At any rate, it may be asserted that the less replaceable a product is in consumption, the greater the impact of an import and price policy on its production. Conversely, for easily replaceable articles such policies could prove ineffective because the trend will necessarily be towards the production of articles which, being subject to new restrictions, promise higher profits for their producers.

If the primary object of a price policy is to maintain the level of domestic consumption above the vagaries of the world market, it is essential that it should apply to imports as well. Otherwise, if it remained possible to export one or more commodities at world market

prices, the agricultural sector would probably tend to use its resources to produce them. A clear example of this is what is now happening in the wake of the rise in cotton prices sparked indirectly by the petroleum question, mainly through its incidence on the production of synthetic fibres.

In the region as a whole, the observable trend in the establishment of price policies for domestic markets is subject to certain restrictions. It is a known fact that in many countries of the region there is an important frontier trade in, chiefly, agricultural products. In some cases, when the price structures of two adjacent countries are independent of each other, all that happens is that the trade between them is enlivened by a spontaneous drive towards equilibrium between the two price structures. The most eloquent and well-known example in Latin America is perhaps the clandestine traffic in cattle between Colombia and Venezuela, Colombia and Ecuador, Uruguay and Brazil, Argentina and Paraguay, Brazil and Bolivia, etc. Actually, this "unregistered" trade is often augmented by deformations caused by exchange factors. Moreover, the movement of animals is not always in the same direction; in some cases it is usual for the traffic to change direction.

This and many other examples could serve to illustrate the wide variety of indirect effects entailed in short- and medium-term policies, particularly those on prices. It is an objective fact that, at the present time, all the countries in the region are feeling the unstable situation of the world market for agricultural products. Should prices continue their upward trend, they will doubtless find it hard to prevent their domestic prices from adjusting to international levels. For some countries, this could be regarded as beneficial in regard to their exports, because it would improve their balance of payments. It should not be forgotten, however, that it could aggravate the nutritional status of much of their population inasmuch as, given the uneven income distribution that prevails in most of the countries of the region, these rises would not exactly benefit the broad majorities. Producers, for their part, would be motivated to channel their resources into exports to the detriment of the domestic market.

At all events, the main feature of the world outlook for agricultural products appears to be pronounced instability. Whatever course the development of world trade follows, however, it holds out opportunities for every single coun-

try of Latin America. These potential opportunities call for well-chosen and timely responses such as, in some cases, to exploit new situations to the utmost as they arise on the world market, and, in others, to generate conditions designed to avert or mitigate direct and indirect negative effects that those situations may entrain for the national economies. While it is true that the potential benefits are great, the potential risks are no less so. The possibility of a series of internal distortions poses a real danger that the countries should try to avoid, or whose consequences they should at least try to mitigate. This is the challenge of the world market to Latin America.

2. Some repercussions on the agricultural foreign trade of the region

As previously indicated, the main characteristic of recent trends on the international markets for agricultural products has been the spectacular rise in prices that began in mid-1972 and continued virtually without interruption at least through 1973, the period for which information is available. It is true that this abrupt price rise was not confined to agricultural, forestry and fishery products, but equally affected fuels, ores, manufactures and services. In any case, it points to substantial changes as much in the world demand for goods and services as in their supply, with the consequent onset of global inflation varying in intensity from one country to another. This latter feature makes it difficult to assess the magnitude of the inflation at the world level. However, for indicative purposes only, table 11 is presented to show the evolution of the price index as computed by UNCTAD.

With more particular reference to Latin America, table 12 shows the evolution of the nominal and real prices of the region's regular export commodities. The export prices of all commodities of agricultural origin rose 64 per

cent in real terms between 1970 and the fourth quarter of 1973. Leaders in the rise were temperate-zone products (particularly wheat, linseed oil and wools), although some tropical products, such as sugar and cotton, underwent very great price rises.

Two simple exercises will corroborate the relative advantage to Latin America of the recent evolution of prices on international markets. The first is to convert the prices of the region's exports in 1970 to 1973 prices and then to compare the real income earned by those countries in that year with the hypothetical income they would have earned if similar volumes had been exported in 1973. The other exercise consists merely in observing the indexes for values and volumes of Latin American agricultural exports and imports from 1970 to 1972 and deriving from them an implicit regional price index for both foreign trade flows.

In the first case (see table 13) it is found that as a result of the increase in international prices alone, in 1973 Latin America would have earned, from equal volumes of exports and imports, US \$3,460 million more than the actual receipts in 1970. However, when this figure is deflated with the UNCTAD index, the additional income in real terms becomes US \$2,266 million. Two further observations are called for in the interpretation of this exercise. First, the prices of agricultural inputs have probably risen faster than the general UNCTAD price index, and would thus necessitate a deduction from the increase in value of agricultural exports. Secondly, it must be mentioned that the computations refer to the region as a whole, which implies the inclusion of intra-regional exports and imports. If this type of computation were done for each country individually, it would undoubtedly reveal that they are affected by variations in international prices in widely differing degrees of intensity, depend-

Table 11
UNCTAD. DEFLATING PRICE INDEX
(1968 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Average
1971	100	100	100	100	101	101	101	103	104	104	104	106	102
1972	107	108	108	108	108	108	108	108	108	107	107	107	108
1973	108	115	115	115	117	120	122	120	120	119	115	114	117

SOURCE: *Monthly Commodity Price Bulletin*, UNCTAD/CP/CPB/49 and 55, Sept. 1973 and March 1974, UNCTAD, Geneva.

Table 12
LATIN AMERICA: NOMINAL AND REAL PRICE INDEXES FOR SELECTED EXPORT COMMODITIES
(1970 = 100)

	<i>Nominal price index</i>				<i>Real price index^a</i>			
	1971	1972	1973	4th quarter 1973	1971	1972	1973	4th quarter 1973
I. <i>Foods and beverages</i>	99.5	120.4	161.0	171.3	97.5	111.5	137.6	147.7
A. <i>Tropical zone</i>	96.7	121.8	156.1	163.2 ^b	94.8	112.8	133.4	140.7
Sugar (open market)	121.0	196.5	256.1	280.6	118.6	181.9	218.9	241.9
Sugar (exports to U.S.A.)	105.6	112.4	127.5	138.7	103.5	104.1	109.0	119.6
Bananas	96.9	100.8	100.3 ^b	93.6 ^b	94.8	93.3	94.3	80.7
Cocoa	79.5	96.6	189.8	207.8	77.9	89.4	162.2	179.1
Coffee (Manizales)	87.4	100.5	128.9	126.6	85.7	93.1	110.2	109.1
Coffee (Santos 4)	82.1	93.4	122.5	130.4	80.5	86.5	104.7	112.4
B. <i>Temperate zone</i>	109.9	115.8	178.6	200.6	107.7	107.2	152.6	172.9
Beef	121.0	134.6	173.7	178.8	118.6	124.6	148.5	154.1
Maize	94.8	89.0	168.4	197.0	92.9	82.4	143.9	169.8
Wheat	112.8	127.5	252.4	339.6	110.6	118.1	215.7	292.8
II. <i>Agricultural raw materials</i>	104.7	121.7	217.3	265.6 [*]	102.6	112.7	185.7	229.0
Linseed oil	86.1	90.4	247.8	392.2	84.4	83.7	211.8	338.1
Cotton (Sao Paulo 5)	121.4	126.3	195.1	276.3	119.0	116.9	166.8	238.2
Cotton (Mexico SM 1-1/16)	115.3	122.2	210.4	319.2	113.0	113.1	179.8	275.2
Cotton (Pima 1)	100.3	104.4	—	—	98.3	96.3	—	—
Cattle hides	117.5	117.5	—	—	115.2	108.8	—	—
Fishmeal	89.9	105.3	231.4	228.7 ^b	88.1	97.5	197.8	197.2
Wool (Buenos Aires 5/6's)	104.2	172.9	295.8 ^b	316.7 ^b	102.2	160.1	252.8	273.0
Wool (Montevideo (58's-60's)	85.9 ^b	117.3 ^b	—	—	84.2	108.6	—	—
Soybeans	107.6	118.2	183.9	206.1 ^b	105.5	109.4	157.2	177.7
<i>Total (I + II)</i>	100.5	120.7	172.2	190.0	98.5	111.8	147.2	163.8
III. <i>Metals</i>	89.7	91.7	130.4	161.0	87.9	84.9	115.5	138.8
IV. <i>Petroleum and derivatives</i>	132.4	158.4	216.2	...	129.8	146.7	184.8	...
<i>Total excluding petroleum and derivatives</i>	97.6	112.7	159.4 ^b	180.2 ^b	95.7	104.4	136.2	155.3
<i>Total 21 commodities</i>	107.7	126.0	176.2 ^b	191.9 ^b	105.6	116.7	150.6	165.4

SOURCE: ECLA.

^a Computed using UNCTAD deflating index (table 11).

^b Estimated figure.

ing on the composition of both imports and exports and on the weight assigned to each commodity within them.

The second exercise is just as interesting. It measures simultaneously the evolution of exports and of imports and shows no less clearly that the trend of the present world situation is

favourable to the region as a whole. While the implicit prices of all agricultural exports went up 14 per cent between 1970 and 1972, the rise of import prices turns out to have been appreciably slower (2 per cent). What is more, a comparison of the Latin American and world indexes also reveals a favourable situation for this region (see table 14).

Table 13
LATIN AMERICA: VALUE OF FOREIGN TRADE IN
AGRICULTURAL COMMODITIES IN 1970, AT 1972 AND 1973 PRICES

	Value of agricultural trade registered in 1970				
	at 1970 prices	at 1972 prices		at 1973 prices	
			nominal	real ^a	nominal	real^{b}
Agricultural exports	6 300	7 604	7 043	10 849	9 274
Agricultural imports	1 500	1 811	1 677	2 583	2 208
Agricultural trade balance	4 800	5 793	5 366	8 266	7 066
Gross additional income		983		3 460	
Net additional income ^b			566		2 266

SOURCE: Joint FAO/ECLA Agriculture Division.

^a Deflated with UNCTAD indices.

^b Favourable effect of terms of trade.

Table 14
EVOLUTION OF AGRICULTURAL FOREIGN TRADE IN LATIN AMERICA
AND THE WORLD
(1961-1965 = 100)

	Exports			Imports		
	Value	Volume	Price	Value	Volume	Price
LATIN AMERICA						
<i>Agricultural</i>						
1970	136	121	112	129	127	102
1971	133	116	115	144	136	105
1972	152	119	128	150	151	105
<i>Foods</i>						
1970	145	125	116	131	127	103
1971	142	122	116	144	133	108
1972	163	123	133	163	153	107
WORLD						
<i>Agricultural</i>						
1970	134	124	108	134	124	108
1971	142	127	112	144	128	113
1972	163	134	122	163	136	120
<i>Foods</i>						
1970	143	128	112	143	127	113
1971	154	132	117	157	133	118
1972	177	140	126	177	141	126

SOURCE: FAO, *The State of Food and Agriculture 1973*.

However, carrying the analysis beyond values and prices turns up a negative aspect when the situation is approached in terms of export volumes, for while the volume of world agricultural exports rose 8 per cent between 1970 and 1972, that of Latin American exports actually decreased by 2 per cent.

These facts suggest several conjectures that need to be searchingly analysed. It is logical to suppose that even though the region has increased its agricultural foreign trade earnings, the drop in the volume of its agricultural exports betrays an inability to exploit the opportunities available on the international market. This could be due either to a deliberate policy of protection for domestic consumption or to sluggish reaction to rapid changes in the international situation.

At all events, since the region—as brought out in the preceding section—is still under-utilizing its production resources, the fact that it did not take advantage of potential markets and did not manage at least to maintain its relative position on the world market only takes us back to the same problem: under-utilization of opportunities both for production and for the expansion of markets.

It is true that there are internal rigidities, and it is also true that, in regard to many countries and products, the structures and mechanisms of the world market are often grossly to the disadvantage of the developing economies. It is no less true, however, that the countries of the region often deal with those structures and mechanisms on an individual basis, thus making it unlikely that any *dé-marche* will be successful. Action en bloc through the integration schemes or other more specific organizations is without doubt the most effective and indeed the only course to take to find instruments capable of mobilizing the power that has to be displayed on the imperfect international markets of today.

Some moves have already been made in this direction in Latin America. For example, there is the joint mission to the European Communities undertaken in Brussels by Argentina, Uruguay and Paraguay in order to maintain the conditions for access by Latin American meats to that market. This joint decision was taken following the imposition by the EEC of a set of measures affecting those exports (new duties, advance deposits and a new indicative price for European production). Also worth mentioning are the possible adoption of

marketing machinery among coffee exporters proposed by Brazil in consequence of the problems that arose in renewing the Coffee Agreement, and the intention of several Central American countries and Ecuador to set up an organization of banana exporting countries.

3. *Regional economic integration in the agricultural sector: the present situation*

Almost all the countries of Latin America²⁰ are members of the various economic co-operation and integration movements that began in the region in the early sixties with the signing of the Treaty of Managua and the entry into operation of the Central American Common Market. In 1961 the Treaty of Montevideo set up LAFTA, and the Caribbean Free Trade Association (CARIFTA) was constituted in 1967, followed in the same year by the Caribbean Common Market (CARICOM). The end of the last decade witnessed the signing of the Cartagena Agreement and the Treaty of the River Plate Basin. Finally, contacts and negotiations have taken place in recent years with a view to the convergence of the existing schemes into a single Latin American common market.

The general objectives to which the member countries of the various integration systems have adhered range from the liberalization of their trade to the establishment of an economically integrated area.

The agricultural sectors in the countries of the region have participated to varying extents in the various existing arrangements. However, because of the characteristics of the national agricultural sectors in the region, in all of them agricultural products are subject to special régimes designed to prevent the dislocation of national production by unrestricted free trade. Moreover, in some groupings—the Andean Group, for example—the objectives assigned to the sector go all the way to the formulation of joint development programmes.

Recent political and economic events on both the world and Latin American stages are strongly influencing the careers of integration schemes. The optimism of the early years is now giving way to undisguised pragmatism.

²⁰ Except for Panama and Dominican Republic, which have stated their intention of joining the CACM and CARIFTA, respectively, and Cuba, which is a member of the Council for Mutual Economic Aid (COMECON), in the orbit of the centrally planned countries.

That was how the Andean Group began. There followed later the signing of the Protocol of Caracas, which amended the original time-table for the transitional stage of LAFTA to make it more objectively realistic; this process is now passing through a stage of thorough institutional review. Fortuitous and very unfortunate circumstances caused Central American integration to lapse into serious stagnation and then to lose ground that the region is only just beginning to regain. The Caribbean countries, several of which acquired political autonomy only a very short while ago, are grappling with the problems of integration along with those generated by the entry of the United Kingdom into the EEC.²¹ Common denominators of all the regional schemes are the special situation of the relatively less developed countries and the aim of more equitable economic development, which ought to ensure in part a fairer distribution of the benefits of integration. In the face of all these difficulties, the countries of the region have reasserted their commitment to integration.

As a result of the latest world developments in agricultural production and prices, the Latin American countries are now able not only to claim a more important international position for themselves as agricultural producers and exporters, but also to secure for regional integration a more dynamic role in agricultural development and in the charting of common trade strategies vis-à-vis third countries. In any case, the prospects for this sector must be viewed in a global setting of integration that takes account of its possible avenues of advance relative to those open more dynamic sectors of the regional economy. The possible harmonization of some instruments of agricultural policy, such as price policy, can be considered only as part of the co-ordination of money and exchange policies.

On the whole, agricultural trade still accounts for much of intra-regional trade in the different groupings, in spite of increasing diversification towards products of greater added value or manufactures. Agricultural trade with third countries is significantly greater, however. The pace of growth of agricultural trade varies from one scheme to another, being greater in Central America than in LAFTA and being confined to a limited range of products in the Caribbean.

²¹ As members of the Commonwealth, the CARIFTA countries could find better opportunities in the expanded market of the EEC, though limitations could be imposed on additional trade at any time.

There have been significant increases in the intra-regional agricultural trade in certain items, but it is hard to discern whether they are caused by the liberalization of trade or by the growth of demand in deficit countries. However, this does not detract from the fact that there are still obvious possibilities of increasing trade, for certain products that could be produced in the region are still imported in sizable volumes from third countries. The reasons for this are many, ranging from problems of supply, prices, transport and financing to commitments to third countries.

Recent developments in the region justify a more optimistic view of the future of economic integration in Latin America. Noteworthy in this connexion is the recent meeting of the Ministers of Agriculture of the Cartagena Agreement countries, who ratified the policy decision to give greater impetus to agricultural trade and to promote the complementation and harmonization of Andean agricultural production policies. Both in the Andean Group and in LAFTA, for the purpose of generating information for the recently started collective negotiations, the study of this sector has been carried further, with the result that a series of updated investigations on different aspects of regional agriculture is now available. With some institutional aspects of organization and operation resolved, the Central American Common Market is endeavouring to identify agricultural policy criteria for its own restructuring and improvement. Among the Caribbean countries and territories, regional and international trade problems are giving way to the consideration of balanced agricultural development, particularly in connexion with the agricultural situation on the smaller islands.

In the context of a needed world strategy on international agricultural adjustment, regional co-operation clearly contributes towards that end. On the international level, both among the countries of each region and between regions, integration schemes can contribute increasingly to attainment of the intermediate and ultimate objectives of development by strengthening their negotiating position. Also worth mentioning is the need to adjust agricultural production policies and to revamp the use of production resources with a view to better exploitation of the advantages of specialization and complementation.

Because of the importance of agricultural trade with the rest of the world, the present international market situation for foods and agricultural raw materials offers a major op-

portunity for the countries of the region, along with producers in other areas, to develop a common strategy for the placement of their production on importing markets. This concerted posture is bound to make possible the maintenance of adequate conditions in terms of access and prices on buyer markets interested in assured and stable supplies. Moreover, intra-regional trade in agricultural commodities can grow with the co-operation and integration movements. At the same time, the countries will be able to realize gradually their aims of co-ordinating and harmonizing the instruments and measures of their policies on trade and agricultural production.

To sum up, regional co-operation and integration are accepted as among the best courses now open to the Latin American countries for promoting their economic development. Integration is now seen not as a substitute for but as a complement to extra-regional trade. In the future, the developing regions will have to look increasingly to their own production to supply their demand for foods and raw materials if they really want to improve the nutritional status and levels of living of their populations. In Latin America, this is given special relevance by the high rate of population growth. In the face of this prospect, integration can and should have a central part to play.

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