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LATIN AMERICAN DEVELOPMENT AND THE INTERNATIONAL  
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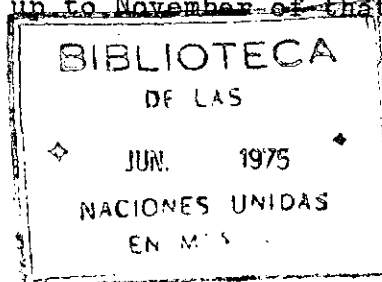
Second Regional Appraisal of the International  
Development Strategy

Part One

ECONOMIC AND SOCIAL DEVELOPMENT OF  
LATIN AMERICA

Volume 1

Note: The preparation of this document was completed in December 1974, so that in some cases use was made of the statistical data and information available to the secretariat up to November of that year.



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Chapter I

HUMAN DEVELOPMENT AND SOCIAL CHANGE

A. A TIME OF CRISIS: CONTRADICTIONS  
IN STYLES OF DEVELOPMENT

The International Development Strategy at the beginning of the 1970s confronted an international order and national development processes in many ways unacceptable, particularly in the polarization of wealth and poverty between countries and between groups within countries. The international and national structures, however, seemed to have enough stability and development trends enough predictability so that desirable modifications could be defined and progress toward their achievement appraised with a reasonable degree of confidence that the phenomena to be appraised would retain recognizable configurations throughout the coming decade. In calling for unified policy approaches aimed at structural changes in the national societies and at a more equitable distribution of income and wealth the Strategy affirmed that national governments must act deliberately to accomplish as "integrated parts of the same dynamic process" what had previously been taken for granted as eventual consequences of economic development. On the social side, the Strategy essentially committed governments to do better and on a larger scale the things that most of them were trying or proposing to do already, and gave them the right to expect that more powerful and prosperous neighbours would help them in this effort without trying to dictate how they were to go about it.

As the mid-point of the 1970s approaches, the developmental experiences and policies of the Latin American countries, like those of the rest of the world, exhibit an extraordinarily complex and continually changing pattern of contradictions and dilemmas at many levels. On the one hand, international conferences have continued to approve declarations and "plans of action" elaborating on parts of the Strategy, building up a more and more detailed picture of the just and harmonious future order that is aspired to, and thus multiplying the facets of

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change that call for appraisal within some coherent frame of reference. On the other hand, the elements of stability in the international order on which the Strategy relied as baselines for planned change have proved largely illusory. This order has entered a period of partial disintegration and attempted reintegration that threatens to be prolonged and conflictive, confronting the Latin American national societies with unprecedented dangers as well as opportunities, differing according to the circumstances of each country. The relevance of an appraisal generalizing for the region as a whole and focussing on linear progress measured by the conventional statistical indicators has become even more questionable than before. The indicators themselves are no more up-to-date nor reliable in regard to social trends than they were at the beginning of the decade, and it is necessary to repeat the well-worn caution that no interpretation relying on them can eliminate the subjective; the appraiser must use his own judgement as to which figures are meaningful and what they mean. The central challenge for an appraiser today, however, is to keep in view simultaneously the widening differences between national situations, the changes in the meaning of social phenomena as their context changes, and the elements of continuity or inertia; he must resist the temptation to impose an artificial order on trends that may be inherently unstable and mutually contradictory.

In the early 1970s two radically different approaches to development, both representing new stages in a long-continued confrontation, could be distinguished in governmental policy declarations, the positions of organized interest-groups, and the real content of policies. Variations on one or the other prevailed, although rarely in a clearcut way, in individual countries: (i) affirmation of the viability of prevailing styles of development and the desirability of consistent policy support for the sources of dynamism of these styles; rejection of drastic changes in the social and economic systems; (ii) affirmation of the inacceptability of these styles and of the necessity of development strategies more directly oriented to national autonomy and social change

/support for

support for transformation of the social and economic systems. The experience of relatively high rates of economic growth over several years strengthened the confidence of the supporters of the first approach. The persistent social inequities and political unrest associated with this growth strengthened the case for the second. Before either approach had consolidated itself enough to make actions readily distinguishable from aspirations, both encountered during 1973 and 1974 a series of shocks. Both remain on the stage, however, and the advocates of both can derive from recent events additional arguments that the path they favour is the only practicable one.

In their public commitments, the national regimes even more than previously cannot help trying to advance in many directions at the same time, to reconcile purposes that may well prove irreconcilable. In the functioning of the national societies and in the demands of social classes and interest-groups contradictions in values, expectations and tactics are equally visible, and are being exacerbated by the present crises. The processes of economic growth and social change up to the present have brought Latin America, or at least the larger countries comprising most of its population, to situations that can be labelled "semi-development" accompanied by pronounced and persistent structural heterogeneity or polarization, and these traits make the impact of the crises and the associated contradictions somewhat different from those visible in the poorer and more predominantly rural parts of the Third World.

"Semi-development" refers to national patterns in which per capita income levels are now midway between those characteristic of Europe and those characteristic of most of Africa and Asia, with incomes of a few Latin American countries overlapping the lower part of the European range. Sizable and probably growing minorities of the national populations, except in some of the smaller and more predominantly rural countries, are participating in "modern" productive and service occupations and "modern" patterns of consumption. By 1972 the share of agriculture in gross domestic product, for the region as

a whole, had fallen to 15.4 per cent and the share of manufacturing had risen to 25.4 per cent. The State, in most of the countries, manages to support an increasingly varied range of "modern" public services and infrastructural investments that are important to the livelihood and the expectations of the greater part of the population. If the present situations are really stages on the road to achievement of relatively homogeneous societies in which high and diversified production and consumption continually stimulate each other, as in the societies of Europe and North America in recent times, the larger Latin American countries have made important progress. If the remainder of the road proves impracticable, or if the style of development becomes discredited in the countries that have been models, the Latin American national societies, like the models, have a great deal to unlearn.

The emerging patterns of semi-development confronted the national societies with the following questions, to which the two approaches summarized above gave their different answers:

First, the variants on the prevailing style of development, lead inevitably to a developmental impasse or societal breakdown because increasing polarization of incomes and life-styles, increasing impoverishment of large masses of the population, inability to offer productive employment to an increasing part of the labour force and vulnerability to changes in the international conjuncture are inseparable from this style? In other words, are they non-viable over the long term as well as inequitable and wasteful?

Second, can structural heterogeneity or polarization be overcome or kept within manageable dimensions without the achievement of radically different styles of development, supported by different distributions of power and participation in the societies, incorporating new priorities and incentives for production, distribution and consumption?

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Third, are alternative styles of development achievable at the national level, in view of the places of the Latin American countries in the international order, national endowments of human and natural resources, and internal distribution of power and consumer demand, except at prohibitive costs?

Fourth, if radically different styles of development are achievable and necessary, what agents or social forces can be expected to generate them and set the national societies on the road to them?

Fifth, if alternative styles of development are not within reach and if the present processes of economic growth and social change demonstrate sufficient viability to persist during the foreseeable future, can one realistically envisage policies within the confines of these processes that will alleviate the extremes of poverty and misuse of the human potential now associated with them?

In the debate over these questions all parties have naturally affirmed more than they could prove. The currents of opinion revolted by the inequities of the prevailing style have tried to strengthen their case by arguing that it cannot survive. The currents of opinion that consider it the only realistic alternative have argued that it will eventually meet the demands of human welfare. As was suggested above, very few governments in Latin America have formulated and applied logically coherent answers to the questions. At the extremes, and within radically different political and institutional frameworks, one finds a few experiences of overriding priority given to accelerated economic expansion, or on the contrary to structural transformation of the society and equalitarian distribution, with incompatible demands systematically excluded or controlled.

Both policies demonstrated viability on their own terms and in the unique circumstances of the States that adhered to them. Elsewhere public endorsement of the need for a bold rethinking of the meaning of development coexisted uneasily with hopes that existing processes, with certain reforms, better planning, and more authentic international co-operation, would somehow eventually come into closer correspondence

/with human

with human welfare. Public social action for the most part continued along conventional lines, with the expansion of certain services responding more to the momentum of what had previously been done than to any overall development strategy. Certain governments formally endorsed innovative attacks on structural heterogeneity through a broad combination of employment policies, but did not act decisively to apply the combination as envisaged. A few national attempts at more radical changes in the styles failed to manage the contradictory pressures and resistances thus generated, while others continued to cope with their problems with a reasonable degree of success but without an incontrovertible breakthrough to the human-oriented development aimed at.

The contradictions in development strategies and in the real processes of change that are coming to the fore or becoming more acute under the impact of the present world crises can be summarized thus:

(a) Between the short term and the long, and between policy concentration and comprehensiveness. All national regimes are now trying to cope with politically and economically dangerous short-term choices under circumstances of great international fluidity and uncertainty about the future, and of intensified internal struggles by every social group that has any capacity to do so to shift the cost of the crises elsewhere. The governments whose countries have gained from the changes in raw-materials prices face choices that are just as perplexing and urgent as those of their neighbours, if less agonizing. Ability to act rapidly, flexibly and selectively is needed, policy contradictions cannot be altogether avoided, and some problems have to be set aside, in spite of their recognized importance for the future, because the consequences of any action are too uncertain, or because the regime does not have sufficient political or financial resources to act on a relevant scale.

At the same time, the Latin American States have not only endorsed "integrated development" as their objective, but also have recognized their duty to act on a very wide range of problems that cannot be

/solved in

solved in the short term, that do not offer significant political or economic dividends within the probable life-span of a current regime, that call for consistent policy approaches over a very long term and concurrent explorations of complex and poorly understood interrelationships - as in the cases of population growth and spatial redistribution, protection of the environment, and husbanding of natural resources. Many of the long-term commitments, like the short-term choices, call for actions without precedents (or with the precedents falling into discredit, as in the cases of educational and employment policy). Action confronts societal pressures and resistances that differ in each policy area. Moreover, the short-term choices that cannot be postponed or evaded are bound to have repercussions affecting what can be done in the long term, in regard to questions where action should ideally be preceded by research, weighing of alternatives and interactions with the overall pattern of change, and education of the public. The gap between ambitious commitments and limited capacity to plan and act coherently is nothing new, but the contrast, between continually intensifying short-term uncertainties and continually ramifying long-term commitments has probably never before been so striking. It would not be surprising that the responses to long-term needs - that is, convocation of "high-level" meetings, drafting of declarations and plans, organization of "pilot projects", creation of additional bureaucratic machinery - should result in a series of outlines for action rather than action itself.

(b) Between the real structures of power and sources of dynamism of market economies, on the one hand, and commitments to redistribution of incomes and "full participation" of the population in development, on the other. This contradiction, which is really a re-statement of the questions posed above, affects short-term choices and attempts to cope with the crises as well as long-term strategies. It has been argued plausibly for some years that simultaneous shifts in the distribution of incomes and in structures of production and consumption

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are the keys both to the achievement of social justice and of styles of development that are less vulnerable, more dynamic and viable over the long term. Experience has demonstrated that this is easier said than done. Attempts to shift incomes, production and consumption simultaneously, using the limited range of policy tools accessible in most cases, are likely to disrupt the existing structures without laying sound foundations for new ones. Except for countries that are enjoying exceptionally favourable public resources derived from oil exports, on the one hand, or that have already carried out and shouldered the costs of radical changes in structures of production and consumption, on the other, the present crises are likely, at least in the short term, to make systematic redistribution strategies seem even more impracticable than before.

(c) Between the State's apparent need to plan centrally the use of its resources and enforce conformity with its policies, on the one hand and commitments or aspirations to decentralization, local group initiative, and "full participation". This contradiction can present itself in societies whose dominant forces are seeking egalitarian socialist or state-capitalist paths as well as in those relying as fully as possible on private enterprise and market mechanisms. Autonomous group participation and pursuit of perceived interests, even in societies less heterogeneous than those of Latin America, can never be expected to harmonize with a central strategy that makes precise demands on the groups and defines their share of gains and sacrifices. The governments committed to socialist planning and the governments committed to the market must both intervene continually to stimulate the kind of initiatives they want and to control organized group tactics for self-protection and self-advancement that interfere with the plan or the market. The present crises make the costs of a free play of social forces seem even higher than before, while they also accentuate the indispensability of popular initiative and self-help in adapting creatively to change and meeting needs that the State cannot meet. The forces controlling the State are likely to try to resolve this contradiction through manipulated participation restricted to the local level.

/(d) Between

(d) Between subordination of policies to an ideology of development, on the one hand, and policy flexibility or pragmatism on the other. This contradiction is one of long standing, and has assumed new guises with the quest for "integrated development". Ideologists and theorists have asserted that there is only one optimal path to development, to be achieved through economic liberalism, technocratic planning of a mixed economy, socialist state control of the means of production, etc. Whatever the prescription, it must be adhered to consistently over a long period to bear the promised fruits. Thus, it can never be discredited by failure, since its advocates can always argue that it was not applied firmly enough or long enough. The prescriptions are commonly assumed to be obligatory for all countries, whatever their basic characteristics and their immediate circumstances; if a country cannot follow the prescription it cannot expect to develop. In practice, governments have periodically taken up logically consistent prescriptions, often in crisis situations, found themselves unable to apply them more than partially and at high political and economic costs, and fallen back either on improvisation or on another prescription. All regimes need an ideological frame of reference to give direction to what they are trying to do, but it is difficult for them (or their ideological mentors of the moment) to relate the framework to the real national potential and act flexibly within it, rather than first grasp it as a panacea and then abandon it. The present crises obviously strengthen the temptation to treat theories as panaceas and also the temptation to react to events and improvise without any theory.

(e) Between the "new international division of labour" emerging under the aegis of the transnational corporations, on the one hand, and the demands for an egalitarian "new international economic order" implying renunciation by the world centres of all the mechanisms enabling them to exercise hegemony over the rest of the world, on the other. The processes of dependent and structurally heterogeneous economic growth had previously generated powerful internal social forces wedded to their perpetuation. The more recent trends in industrialization,

/with promising

with promising opportunities opening for at least some countries to export manufactured goods largely through the operations of transnational corporations, seemed to enhance the viability of the style of development. In fact, the functioning of the links between central and peripheral market economies seemed to be generating a new international order with considerable vigour, although quite different from what most regimes, central as well as peripheral, said they wanted, and impervious to transformation by any tools they were likely to use. The present crises are making the viability of the new international division of labour increasingly problematic for most of the peripheral countries other than those exporting oil, while also diminishing the credibility of the alternatives featuring more egalitarian international co-operation. The "developed" countries during the remainder of the 1970s may not offer expanding markets at good prices for manufactures and non-essential raw materials, or even the meagre financial co-operation forthcoming up to the present. Some sectors of public opinion are beginning to doubt their ability to help the rest of the world "develop" along lines responding to their own interests and values. In other sectors, certain objectives, such as that of exporting the costs of their own crises and regaining political and economic control over sources of raw materials are looming larger. At the same time, quite different trends are visible, although not clearly defined. The presence of several autonomous power centres restricts the capacity of any of them to dictate to the Third World. Many of the centres, for various reasons, are entering into periods of weakness or change in political direction. The transnational corporations may continue acting with considerable autonomy in relation to the policies of their "home" governments. Political regimes, are emerging, particularly in Europe, that seek to reform the previous patterns of economic growth and the "consumer societies", that are inclined to be sympathetic to the quest for human-oriented styles of development in the rest of the world, and that reject authoritarian solutions.

The regimes of the peripheral countries are trying to cope with this ambiguous shift in relationships with the central countries through several quite different tactics: (i) by seeking to bind the central countries through detailed commitments to honour the egalitarian values all of them have endorsed in general terms; (ii) by forming alliances and bargaining groups to obtain better terms for specific raw materials exports and protect themselves against pressures from the buyers; (iii) by controlling individually the flows of capital, imports, technological borrowing and cultural influences so as to enhance their autonomy; (iv) by bidding individually for insertion into the international order on preferential terms (through free entry of capital and technology, controls over labour cost, guarantees of stability, political and military services to central countries, etc.). The capacity of individual regimes to make use of the last three tactics obviously varies enormously. Some of the smaller and weaker national societies are practically restricted to the first tactic: that is, claiming as a right international assistance in coping both with the impact of the present crises and with their long-term disadvantages.

(f) Between the aspiration to united action in defence of the rights and interests of the Third World as a whole or Latin America as a whole, on the one hand, and the persistence of traditional national rivalries and the emergence of new ones, on the other. The present crises are obviously exacerbating this contradiction, closely related to the one previously described. As the previous relative stability of the international order disintegrates, as possession of certain resources or geographical position suddenly changes the standing of individual countries, and as the persistence of unresolved international conflicts discourages belief in an international conscience and mechanisms for conciliation or sanction, past conflicts also come back to mind. No region in the world is free from these potential sources of conflict among nations, and this is bound to affect the capacity of individual regimes for unified action, even if their suspicions have no real basis.

/They contribute

They contribute to another contradiction, although this is notoriously more prominent in the "rich" countries than in the Third World: between the continuing allocation of the rich's share of public sector resources, along with research and innovatory talents, to armaments; and the public professions of over-riding devotion to accelerated development, human welfare, and the elimination of poverty.

None of these contradictions is altogether new, but their prominence and complexity are obviously more threatening than at the beginning of the 1970s. Formidable as they are, they do not require a catastrophist conclusion that the international order is beyond repair or that the processes of economic growth and social change prevailing in most of Latin America up to the present have reached a final impasse. The long history of past warnings of imminent breakdown unless these processes were brought into closer correspondence with economic efficiency and social justice suggests that the capacity of the national societies to keep afloat amid contradictions should not be underestimated. The conclusion of Gunnar Myrdal at the end of the 1960s that "perhaps the most likely possibility would be the continuation of present trends" with "neither evolution nor revolution" will be tested more severely but has not yet been disproved.<sup>1/</sup> Even after the long series of shocks associated with world economic depression and world war in the 1930s and 1940s the Latin American national societies emerged no closer to the ideal than before but in some ways strengthened and equipped for the courses they have since followed. The present crises may also have an invigourating effect on balance, however painful and conflictive the readjustments, by forcing the national societies to use their own human and material resources more efficiently, to innovate, and to reduce the scope of some of the contradictions now visible.

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<sup>1/</sup> "The Latin American Powder Keg", Appendix to Gunnar Myrdal, The Challenge of World Poverty: A World Anti-Poverty Programme in Outline (Allen Lane The Penguin Press 1970).



It has long been an accepted truism that attempts to generalize for Latin America as a whole are ill-advised. At the same time, a regional appraisal such as the present cannot examine individual countries except as examples of or exceptions to trends that seem to be of regional importance. Earlier ECLA studies have sought a tenable middle ground through the construction of typologies of national situations to which the discussion of trends can be referred.<sup>2/</sup> These typologies have distinguished, with many cautions concerning anomalies in the patterns of individual countries, three main groups: (i) the relatively urbanized countries with low or declining rates of population growth, per capita incomes well above the regional average, relatively wide diffusion of "modern" public services and market participation, but with relatively low rates of economic growth, chronically high rates of inflation, and particularly formidable sociopolitical conflicts; (ii) the large countries (containing about two-thirds of the population of the region) in which incomes are lower, rates of population growth and urbanization much higher, structural heterogeneity particularly pronounced, but economic growth relatively dynamic and diversified and sociopolitical conflicts somewhat more manageable; (iii) the small countries, mostly with still lower and more unevenly distributed incomes, very high rates of population growth, less urbanization and market participation, rates of economic growth varied but more narrowly based on exports of a few raw materials. Cuba, with its unique sociopolitical configuration, and the non-Spanish-speaking Caribbean countries, with their quite different geographic, demographic, cultural and economic patterns, fall outside this triple classification; the latter really require a typology of their own.

<sup>2/</sup> See, in particular, Chapter III in Social Change and Social Development Policy in Latin America (United Nations, New York, 1970); "Study of the Economic and Social Classification of the Countries of Latin America", Economic Bulletin for Latin America, XVII, 2, 1972; and Rolando Franco, Tipología de América Latina (Cuadernos del Instituto Latinoamericano de Planificación Económica y Social, Serie 11, No 17, Santiago, 1973).

The construction of typologies can mislead as to the consistency of national differences and the real existence of statistically-derived types. Practically all countries of the region show common trends and problems, changing at different rates and in different configurations; the only constant elements are territorial size and relative population size. The few apparent exceptions are cases in which similar trends and problems have led to breakdown transforming the patterns. The statistical indicators on which typologies must rely are most safely interpretable as well as obtainable to the extent that national societies manifest relatively low structural heterogeneity or internal polarization; dependable correspondence between the formal objectives of institutions and their real functioning; and predominantly stable and licit transactions with the rest of the world. To the extent that these conditions are lacking, either the interpretation of the indicators must become dangerously subjective and selective, or the statistically based types may misrepresent the differences that are significant to an appraisal of development potential.

For present purposes, a typology should be deliberately provisional, assuming that countries can shift from one grouping to another and that the typology itself can become rapidly obsolete through political as well as economic or demographic changes. During the early 1970s the relevant traits of several countries have shifted rather suddenly, in ways that cannot be assessed from the available statistical indicators, since these refer to the years of relatively stable growth. At present new criteria bearing on the national society's capacity to cope with or gain from the present crises have to be taken into account. Two such criteria deserve particular attention.

The inclusion of national energy supply (meaning in practice whether the country has an important surplus of oil for export, is more or less self-sufficient, or has a deficit that must be filled by imports) as a key typological criterion is the most striking indication of how much the conditions for development have changed in a brief time. At the beginning of the 1970s this factor seemed to be of crucial significance solely for Venezuela, where the dimensions of oil exports

/introduced potentialities

introduced potentialities and generated socioeconomic patterns (particularly the rapidity of the shift from rural predominance to concentrated urbanization) quite different from those found elsewhere. In other countries per capita energy production was an important indicator of the level of development, but seemed a dependent factor more than a determinant; any country with otherwise satisfactory growth trends could import enough oil for its needs. Now the possession of oil for export is radically changing the policy options open to a few of the smaller and poorer countries in the third group identified above and will undoubtedly induce major changes in their overall social and economic patterns. Lack of oil is making the positions of other small countries in this group even more disadvantageous than before, although the direct impact is tempered by the modest energy needs of their predominantly rural economies. Among the larger, relatively urbanized and economically diversified countries, the degree of self-sufficiency in energy supplies may determine the extent to which they can maintain their present styles of development throughout the period of crisis without excessively costly and painful readjustments.

The dominant development strategy, the degree of commitment by the State to its realization, and the political resources available to the State for this purpose, constitute an extremely elusive set of criteria, but their importance in differentiating between national situations increases as the State continues to assume wider responsibilities, whether in pursuit of a coherent development ideology or in a pragmatic spirit of "crisis management" and the cutting of insitutional Gordian knots.

These two completely different criteria for classification of countries have two elements in common: (i) their capacity to change rapidly; (ii) their lack of any consistent correspondence with the "structural" as well as the "level of welfare" criteria that have been used in previous typologies. Any type of country, prosperous or poor, large or small, predominantly urban-industrial or rural-agricultural, can strike oil. Any type of country can acquire an authoritarian regime with a voluntaristic-ideological approach to

/development. In

development. In either case, of course, the results will depend in large part but probably not entirely on the opportunities offered and constraints imposed by more permanent elements in the national patterns.

In view of the fluidity of national patterns and the incongruities between their elements in crisis situations, it would be premature to propose a new typology, although the remainder of this chapter will try to distinguish types of situation in relation to the different topics it discusses, and to relate these typical situations - in demographic structures, social stratification, distribution of the fruits of development, growth and distribution of social services, etc. - to the overall patterns.

At this point, it is necessary to go more deeply into the political context of development in a time of crisis.

#### B. THE ROLE OF THE STATE AND THE POLITICAL CONTEXT

Two quite different conceptions of the ideal nature of the State have coexisted uneasily throughout its evolution in Latin America: (i) the State as an authoritarian paternalistic entity acting autonomously for the good of the society; (ii) the State as a servant of the society following instructions given it through democratic political processes.

Neither conception has corresponded closely with reality. The first has encountered a persistent contradiction between the roles assigned to the State as defender of national sovereignty, definer of the national purpose, arbiter between interest-groups, and dispenser of services; and the precarious policy-making, planning, administrative and financial capacities of the real State. The second has encountered an equally persistent contradiction between political forms emphasizing equal rights and democratic procedures, and the very uneven distribution of opportunities for political participation. Nevertheless, reliance on the national State to "solve problems" is more widely diffused throughout the population than in most other parts of the Third World, and is much more pronounced than in the countries now labelled

/"developed" in

"developed" in the earlier stages of their evolution.<sup>3/</sup> This leading role attributed to the State derives from historical traditions going back to the colonial period and is paradoxically associated with chronic distrust or condemnation of the real State for its inability to accomplish what is expected of the ideal State.

The executive-legislative components of the State have in practice generally represented an unstable compromise or implicit pact between interest-groups or social classes able to exert a claim to a share of power, circumscribed in varying ways by relationships to the world centres. With urbanization, the formation of national markets, the introduction of modern mass communication media, and the expansion of education, the size and diversity of the groups able to exert such a claim has increased, without embracing the whole population. In the course of trying to reconcile dynamic economic growth within the bounds of the prevailing style with the more particularistic claims of the groups on whose support they have depended, the "compromise" regimes have, to varying degrees in different countries, managed to modernize some parts of the administrative apparatus, to capture an increasing share of the national income, and to create or take under their control a wide range of productive and infrastructural activities. The quantitative growth and uneven modernization of State activities have probably proceeded more rapidly than the societal processes of growth and change with which they are associated. At the same time, the State has found itself inextricably enmeshed in the incompatibility of the demands made on it (with each other as well as with the total resources at hand for satisfying them); in the unavoidability of continual bargaining for support, evasion of issues endangering the

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<sup>3/</sup> One observer, emphasizing the differences between the evolution of the "patrimonialist State" in Latin America and the legitimation in Europe of the State as a necessary evil to regulate relationships between individuals, has summed up: "En América Latina se le exigen al individuo credenciales para existir, no al Estado". (Fernando Henrique Cardoso, "La Ciudad y la Política", in Martha Schteingart, Comp., Urbanización y Dependencia en América Latina (Buenos Aires, Ediciones SIAP, 1973).)

political compromise, and adjustments to the changing conditions of trade, aid and investment; and in the complications of legislation expected simultaneously to safeguard the interests of the different groups and to commit the State to assume new responsibilities.

These traits and dilemmas of the executive-legislative components of the State have given the more stable, increasingly professionalized administrative-service-rendering-repressive mechanisms, supposedly acting under instructions in pursuit of a national development policy, an intermittent and compartmentalized semi-autonomy, conditioned by the need to provide prebends and other advantages to the groups in the political compromise. The attainment of this semi-autonomy has quite different implications in different parts of the State machinery. In the more strictly administrative activities the well-known result has been routinization and hypertrophied proceduralism. In the industrial, mining, transport and energy-producing corporations of the public sector; in development banks and corporations; and in social security, public health, housing, and educational services, it has frequently meant the accumulation by professional or managerial groups of very important resources, exerting a major influence on the lines of economic growth and social change, to be used according to criteria decided internally. Planning and research bodies have sometimes enjoyed a sort of autonomy in a vacuum, tolerated in pursuing investigations and giving advice that the remainder of the State ignored. The armed forces have commonly achieved the highest degree of autonomy within the State.

In fact, the political compromises between groups and the electoral and legislative procedures through which these groups test their relative strength and conduct bargaining have periodically confronted crises bringing about their replacement by regimes with a narrower base of consensual support, usually under military tutelage. Such changes have in the past been largely cyclical, with eventual return to more open and competitive political processes, whether because authoritarian tactics prove unable to cope with the complexity of the societies or because specific objectives resolving the crisis are accomplished.

/At present

At present the need to control tensions generated by the situations of polarization, the need to react rapidly and flexibly to the changing international conjuncture, and the aspiration to achieve original styles of development oriented to national autonomy and social justice all encourage the assertion of more systematic ideological claims by groups acting in the name of the State to an autonomous role, representing the interest of the nation as a whole, assuming the right and duty to determine a development strategy and to exclude actions and demands incompatible with this strategy.

It follows from such a conception that the executive power must exert firmer and more unified control over the compartmentalized administrative, service-rendering, and repressive mechanisms of the State. Campaigns are undertaken to rationalize administrative procedures, reduce the size of the bureaucracy, and bring the more autonomous public entities under central policy direction. At the same time, formal planning receives renewed attention as an instrument for accomplishing these purposes. The effort to plan during the 1960s achieved a great deal in the building up of institutional capacity for diagnosis, in the testing of different instruments of economic policy, and in the allocation of public investments. The more general claims for planning as a body of neutral techniques which any government could apply to accelerate development and prescribe its course, however, were in large part disappointed. The policy-making bodies could not adhere consistently to planning principles because of their need to satisfy conflicting demands and their precarious tenure. The administrative and service-rendering bodies tended to be indifferent or hostile to rationalization from outside, particularly when planning was divorced from the preparation of budgets, as was commonly the case. The planners themselves only slowly acquired the tactical skills and understanding of political processes needed to influence what happened under circumstances so recalcitrant to their rationality. The present trends imply a more technocratic bias in policy-making, a supposition that there is one correct answer to each developmental problem to be supplied by the proper expert and applied by the State.

/The aspiration

The aspiration to more central control and policy direction of the administrative apparatus invariably parallels an aspiration to decentralize, de-bureaucratize, and call forth constructive popular initiative. Questions of channels and objectives of participation by the masses of the population are perplexing but unescapable for regimes that have assumed an autonomous role as well as for regimes based on bargaining and compromise. A style of development characterized by structural heterogeneity combined with open political processes does not achieve general mobilization of the masses in its support, since it cannot incorporate the greater number in satisfactorily productive activities nor offer them major improvements in their levels of living, but it does permit - for the urban masses, rarely for the rural - a limited participation in the political struggle focussed on the State, through the vote and other means. The resulting concessions, small as they may be, place a strain on the existing distribution of power and the patterns of production, distribution, and consumption, commonly with inflationary consequences. The regimes claiming an autonomous role for the State can exclude this kind of participation, but since they justify themselves in terms of the need for greater national dynamism and unity, they must encourage the masses to help themselves rather than vegetate in apathetic poverty until economic growth permits their incorporation into the "modern" component of the society. Moreover, all kinds of regimes recognize their inability to manage through central controls and finance from public revenues the cumulative responsibilities that the State has assumed. Thus, the regimes that evaluate "politics" negatively also seek "positive" participation featuring organized local initiatives to solve local problems and raise productivity and levels of living. Interest in the techniques of community development, co-operativism and workers' self-management continually reappears in spite of the disappointing experiences over the past two decades of most programmes claiming to apply these principles. It can be concluded that such initiatives are directed to problems so persistent and so insoluble by other means that most regimes will continue to experiment with them

/whatever their



whatever their overall strategy. The experiences of the resulting programmes in their confrontations with national realities have been discussed many times, and only a few points need to be made here.

First, in recent years principles and techniques for "conscientization" of the disadvantaged strata of the populations to the nature of their problems within the social order, stimulating them to think and act autonomously, gained currency within the more open national societies, as against the previous "community development" suppositions concerning the feasibility of incorporating the disadvantaged strata into the social order through aided self-help and appeals to community consensus.<sup>4/</sup> The newer doctrines supposed, in many variants, that the strata in question would become able to transform the social order itself. These propositions gained appreciable influence among teachers, social workers, and members of religious bodies. However, the combined dependence of "conscientization" on prolonged educational dialogues guided by persons imbued with its principles and on the tolerance of the power structures it calls into question have, in most national settings, rendered the attempts to apply it restricted in scope and quite vulnerable. Even the more populist regimes have not welcomed the idea of fully autonomous action by the masses. The organized initiatives and the persons engaged in them have fared badly in the trend toward assumption of more autonomous roles by the State itself.

Second, the shift from regimes based on bargaining and compromise to regimes trying to act more autonomously disrupts to varying degrees the network of visible intermediaries through which social groups communicate with the State, defend their perceived interests, and receive information on the intentions of the authorities. Local representatives of political parties, trade unions, etc., may lose their

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<sup>4/</sup> For a presentation of these principles by their main originator, see Paulo Freire, The Pedagogy of the Oppressed (New York, Herder and Herder, 1972).

capacity to perform these functions. Both the central authorities and the social groups must try to find new intermediaries that will be listened to and that will understand the new "rules of the game" as the regime perceives them. Even if the regime actively supports local participatory organs and enjoys popular support, its capacity to mobilize the population will be small until a network of intermediaries acceptable to both sides takes shape. From the standpoint of the regime, the solution coming first to mind is likely to be the establishment of an agency staffed by youth from the universities to act as intermediaries and mobilizers. Such intermediaries, however, are likely to have interests of their own, differing from those of the regime as well as those of the social groups.

Third, the nature of the machinery of the "modern" State, whatever the specific traits of the regime, - a complex of administrative systems geared to legal provisions, standardized procedures, controls, and channels for provision of services - means that attempts to decentralize and leave local problems to local initiative run counter to its inherent logic. The components of the State machinery cannot help seeking to enhance their own power and formulating problems in terms that are compatible with generic, routinized solutions. The objectives of economic efficiency, administrative consistency, and equity all seem to demand this. Such a predisposition encounters, on the part of the groups that are capable of organized action, an equally strong predisposition to focus such action not on self-help but on the obtaining of preferential services, subsidies, and protection from the State, combined with a predisposition to use any gains to respond to "modern" consumption appeals rather than investment. It has often been pointed out that local power structures are no more likely than the central authorities to rest on consensus and are even less likely to welcome autonomous participation of the disadvantaged strata. An attempt to promote decentralization and local initiative, when the regime sets its own limits on what the initiative should produce and avoid, may terminate in relationships between the centre and the local group even more bureaucratized and manipulatory than before.

/Any regime

Any regime seeking to use the State apparatus autonomously either to fortify the prevailing style of development or to achieve a different style must try to recruit its own intellectual and technocratic elite. This is probably more difficult for regimes with the second purpose than for those with the first, although not for lack of candidates. In almost any country a majority among the more highly educated groups can be expected to support the prevailing style, whether for ideological reasons, dependence on the models of the "developed" countries, class consciousness, or fear of the results of radical social change. At the same time, systematic rejection of the prevailing style has been more pronounced in academic and intellectual circles and in minorities among the educated youth than in the rest of the population; these circles have repeatedly assessed the prevailing style as neither acceptable nor viable. An extensive literature has accumulated, mainly during the past decade, analysing the interrelations of external dependency and internal power structures in generating structural heterogeneity, and examining the potentialities of different social classes, interest-groups and institutions as destroyers of this style and architects of a different future. The theoretical and valorative premises for rejection of the prevailing style have, of course, been extremely varied; and the action conclusions range between the poles of determinism and voluntarism; they include predominantly technocratic and ultra-nationalist as well as social revolutionary prescriptions. Any regime seeking to enlist these dissidents is sure to find that many of them reject it because its composition does not match theoretical preconceptions concerning the correct agents of societal transformation or because the constraints on its autonomy rule out actions that are indispensable according to the same theoretical preconceptions.

At the same time, the dependence of many social scientists and educated youth on employment in the public administration, particularly in planning and mobilizing agencies, has resulted in a certain ambivalence in their predisposition to reject the prevailing style and demand an ideologically coherent alternative. They then find reasons for hope of changing the style through their powers of persuasion

/with groups

with groups dominant in the State and through their technocratic role in policy formulation and planning. The failure in most countries of the social classes disadvantaged by the prevailing style to challenge it so vigorously as to constitute a serious threat, and the evident capacity of the style, in most of the larger countries at least, to perpetuate itself and support continuing economic growth, have presumably strengthened the inclination to work for incremental changes from within the system.

The need of the regimes to enlist élites for the State machinery and their disinclination to tolerate radically critical counter-élites or student militancy are placing many academic institutions, and particularly their social research affiliates, in a precarious or even worse position. Regimes convinced of their duty to place the nation on the one correct path to development and of the duty of the highly educated minority to help them are understandably impatient at the traditional autonomous critical role of the universities, particularly when its manifestations are as intransigently combative as has commonly been the case.

It is equally evident that many, particularly among the educated youth, who have continued to find the prevailing style radically unacceptable have hardened their intransigence and have demonstrated a disposition to resort to any tactics likely to cripple the ability of the style to function, even in circumstances in which they have no apparent likelihood of being able to replace it by an alternative order. In Latin America as in the rest of the world normless violence and counter-violence, both received increasingly with apathetic resignation by the majority, are among the more disquieting symptoms of crisis.

### C. THE DEMOGRAPHIC CONTEXT

The main features of demographic change in Latin America are well known and have been more reliably documented than most other questions with which this chapter is concerned.<sup>5/</sup> A glance at table 1 confirms their persistence on an ever larger scale. They can be summed up as follows:

(a) The overall population growth rate rose slowly during the 1960s to reach a peak of about 2.8 per cent annually. This rate will probably persist through the 1970s with a slight decline by the end of the decade; but a steeper decline during the later 1970s is also possible. The growth rate is determined by high fertility, beginning to fall slightly in a good many countries, but significantly in only a few, and by mortality that has reached quite low levels - partly because of the youthfulness of the population - but that also continues to decline slowly. For the region as a whole, the crude birth rate declined from 40 per 1 000 population in 1960 to about 38 in 1970, while the crude death rate fell from 11 to 9. In absolute terms the population of Latin America increased by 50 millions during the 1950s and by 69 millions during the 1960s. It will increase by more than 90 millions during the 1970s, giving a regional population of 210 millions in 1960, 279 millions in 1970, and more than 368 millions in 1980.

(b) The youthfulness of the population has become even more accentuated. More than 42 per cent of the regional population in 1970 was in the "dependent" group 0-14 years of age; in 13 countries the percentage was 45 or more. Less than 4 per cent of the regional population was 65 years of age or over. The remaining 54 per cent of the population, between 15 and 64 years of age, moreover, is heavily concentrated in the younger age groups. This pattern will not change appreciably during the 1970s, with the national exceptions to be noted below.

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<sup>5/</sup> See César Peláez and George Martine, "Population trends in the 1960s and their implications for development", Economic Bulletin for Latin America, XVIII, 1 and 2, 1973 and "Development and Population in Latin America: A Synthetic Diagnosis" (ST/ECLA/Conf.54/L.5, 20 January 1975). A compilation of ECLA studies on population questions is about to be published: Población y desarrollo (Fondo de Cultura Económica, Mexico, 1974).

Table 1

## LATIN AMERICA: DEMOGRAPHIC INDICATORS, 1970, 1975 AND 1980

Country	Total population (thousands)			Density (inhabitants/ km <sup>2</sup> )	Average annual growth rate (percent age)	Birth rate (per thousand inhabitants)		Death rate (per thousand inhabitants)	
	1970	1975	1980	1975	1970- 1975	1965- 1970	1970- 1975	1965- 1970	1970- 1975
	Argentina	23 748	25 384	27 064	9.1	1.3	22.0	21.8	8.6
Bolivia	4 780	5 410	6 162	4.9	2.5	43.9	43.7	19.0	18.0
Brazil	95 204	109 730	126 389	12.9	2.8	38.0	37.1	9.5	8.8
Colombia	22 075	25 890	30 215	22.7	3.2	43.5	40.6	10.3	8.8
Costa Rica	1 737	1 994	2 286	39.3	2.8	37.9	33.4	7.3	5.9
Cuba	8 565	9 481	10 533	82.8	2.3	31.1	29.1	6.6	6.6
Chile	9 717	10 621	11 547	14.0	1.8	31.8	25.9	9.8	8.1
Ecuador	6 031	7 090	8 303	25.0	3.2	44.6	41.8	11.0	9.5
El Salvador	3 516	4 108	4 813	192.0	3.1	44.2	42.2	13.0	11.1
Guatemala	5 298	6 129	7 100	56.3	2.9	44.6	42.8	15.7	13.7
Haiti	5 201	5 888	6 665	212.2	2.5	44.6	42.0	19.7	17.2
Honduras	2 553	3 037	3 595	27.1	3.5	51.1	49.3	17.5	14.6
Mexico	50 313	59 204	69 965	30.0	3.2	42.8	42.0	9.7	8.6
Nicaragua	1 970	2 318	2 733	17.8	3.2	48.6	43.3	15.7	13.9
Panama	1 458	1 676	1 927	22.2	2.8	38.3	36.1	8.1	7.1
Paraguay	2 301	2 647	3 062	6.5	3.1	41.4	39.8	9.9	8.9
Peru	13 248	15 326	17 711	11.9	2.9	43.0	41.0	13.7	11.9
Dominican Republic	4 343	5 118	6 053	105.0	3.3	46.8	45.8	12.3	11.0
Uruguay	2 887	3 060	3 244	17.2	1.2	21.2	20.8	9.4	9.2
Venezuela	10 559	12 213	14 134	13.4	2.9	39.6	36.1	7.9	7.0
<u>Total Latin America</u>	<u>275 504</u>	<u>316 324</u>	<u>363 501</u>	<u>15.8</u>	<u>2.8</u>	<u>38.5</u>	<u>37.2</u>	<u>10.3</u>	<u>9.3</u>
Barbados	254	265	263	616.3	0.5	25.7	24.1	7.8	7.5
Guyana	745	857	995	4.0	2.9	38.7	39.0	7.7	6.6
Jamaica	1 996	2 201	2 382	200.8	1.9	36.5	32.7	7.0	6.2
Trinidad and Tobago	1 087	1 162	1 255	226.6	1.7	30.3	28.1	6.7	6.0
<u>Total English-speaking countries</u>	<u>4 062</u>	<u>4 485</u>	<u>4 895</u>	<u>19.4</u>	<u>2.0</u>	<u>34.6</u>	<u>32.2</u>	<u>7.1</u>	<u>6.3</u>
<u>Total region</u>	<u>279 566</u>	<u>320 809</u>	<u>368 396</u>	<u>15.8</u>	<u>2.8</u>	<u>38.4</u>	<u>37.1</u>	<u>10.2</u>	<u>9.3</u>

/Table 1 (concl.)

## LATIN AMERICA: DEMOGRAPHIC... (concluded)

Country	Life expectancy at birth		Percentage of urban population <sup>a/</sup>		Percentage of urban population <sup>a/</sup> in cities of more than 100 000 inhabitants		Percentage of total population by age groups in 1975		
	1965-1970	1970-1975	1960	1970	1960	1970	0-14	15-64	65 and over
Argentina	67.4	68.2	59.9	67.4	85.7	82.0	28.5	63.6	7.9
Bolivia	45.3	46.8	20.1	22.7	48.9	73.6	43.0	54.1	2.9
Brazil	59.7	61.4	28.8	38.8	75.2	75.9	42.0	54.8	3.2
Colombia	58.5	60.9	31.1	43.1	70.8	78.8	45.7	51.5	2.8
Costa Rica	65.4	68.2	23.5	32.2	100.0	78.6	42.2	54.5	3.3
Cuba	69.2	69.8	40.3	46.2	71.8	68.6	38.0	55.8	6.2
Chile	61.5	64.4	49.5	60.5	68.6	71.0	36.3	59.0	4.7
Ecuador	57.2	59.6	26.1	31.3	70.4	66.5	46.0	51.2	2.8
El Salvador	54.9	57.8	17.4	18.6	57.5	51.6	46.5	50.3	3.2
Guatemala	50.1	52.9	13.8	17.7	88.7	82.4	44.2	53.0	2.8
Haiti	44.5	47.5	6.1	7.0	78.0	78.2	42.9	54.1	3.0
Honduras	49.4	53.5	11.0	15.6	62.2	85.6	46.9	50.3	2.8
Mexico	61.0	63.2	33.3	35.3	72.8	66.1	45.9	50.6	3.5
Nicaragua	50.4	52.9	20.4	27.7	68.8	69.3	48.4	49.2	2.4
Panama	64.9	66.5	33.1	38.3	76.8	76.3	42.8	53.4	3.8
Paraguay	60.1	61.9	15.8	17.5	100.0	94.3	45.1	51.5	3.4
Peru	53.4	55.7	26.7	33.3	69.9	76.4	44.1	53.0	2.9
Dominican Republic	55.7	57.8	18.7	30.2	65.1	68.6	48.0	49.4	2.6
Uruguay	69.3	70.1	56.1	70.2	79.2	74.5	27.9	63.1	9.0
Venezuela	63.0	64.7	45.3	57.9	64.6	72.0	44.4	52.5	3.1
<u>Total Latin America</u>	<u>59.8</u>	<u>61.7</u>	<u>33.2</u>	<u>40.4</u>	<u>74.9</u>	<u>74.5</u>	<u>42.1</u>	<u>54.1</u>	<u>3.8</u>
Barbados	70.2	71.8	-	-	-	-	35.1	56.6	8.3
Guyana	64.7	67.2	...	13.9	...	-	45.2	51.3	3.5
Jamaica	68.2	70.2	24.9	32.3	94.1	81.1	43.8	50.9	5.3
Trinidad and Tobago	67.1	69.3	...	49.0	...	68.9	38.6	57.1	4.3
<u>Total English-speaking countries</u>	<u>67.4</u>	<u>69.5</u>	<u>...</u>	<u>30.7</u>	<u>...</u>	<u>68.8</u>	<u>42.2</u>	<u>52.9</u>	<u>4.9</u>
<u>Total region</u>	<u>59.9</u>	<u>61.8</u>	<u>...</u>	<u>40.2</u>	<u>...</u>	<u>74.5</u>	<u>42.1</u>	<u>54.1</u>	<u>3.8</u>

Sources: CELADE, Boletín Demográfico N° 13; Information supplied directly; ECLA: Estimates of the Social Development Division.

<sup>a/</sup> Population living in cities of over 20 000 inhabitants.

(c) The concentration of population in urban centres continues unabated without, however, being sufficiently rapid to bring rural population growth to a halt except in a few countries. The percentage of total population living in centres with 20,000 or more inhabitants rose from 32.5 in 1960 to 40.0 in 1970, while the percentage of this urban group living in cities with more than 500,000 inhabitants also rose, from 52 per cent to 56 per cent. While demographic studies commonly label the rest of the population "rural" this is somewhat misleading; the strictly rural-agricultural population is much smaller. If one includes the smaller towns that are "urban" culturally and in physical layout, a majority of the Latin American population is already urban; by 1980 a majority will be living in centres above the 20,000 mark.<sup>6/</sup>

(d) The rapid increases of population during the past two decades have brought about some changes in the notoriously uneven spatial distribution but no major transformation. Map 1, limited to the South American continent, show that the more densely populated areas (over 25 persons per km<sup>2</sup>) have grown in size and merged with one another to form continuous belts rather than islands, while the territories that are practically uninhabited (less than one person per km<sup>2</sup>) have shrunk from 48.9 per cent of the total area to 24.2 per cent. The population in the half of the South American territory that was nearly empty in 1950 actually grew much more rapidly than the rest of the continental population, more than doubling between 1950 and 1970, with more than half of this area shifting to a population density above one per km<sup>2</sup>. Less than one twentieth of the continental population lived in this half of the territory in 1970, however, and the greater part of its

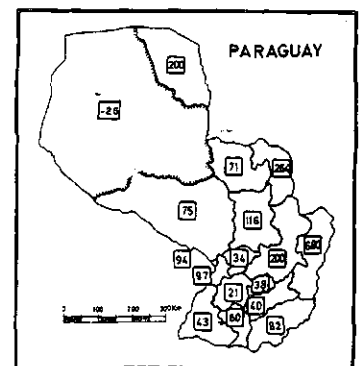
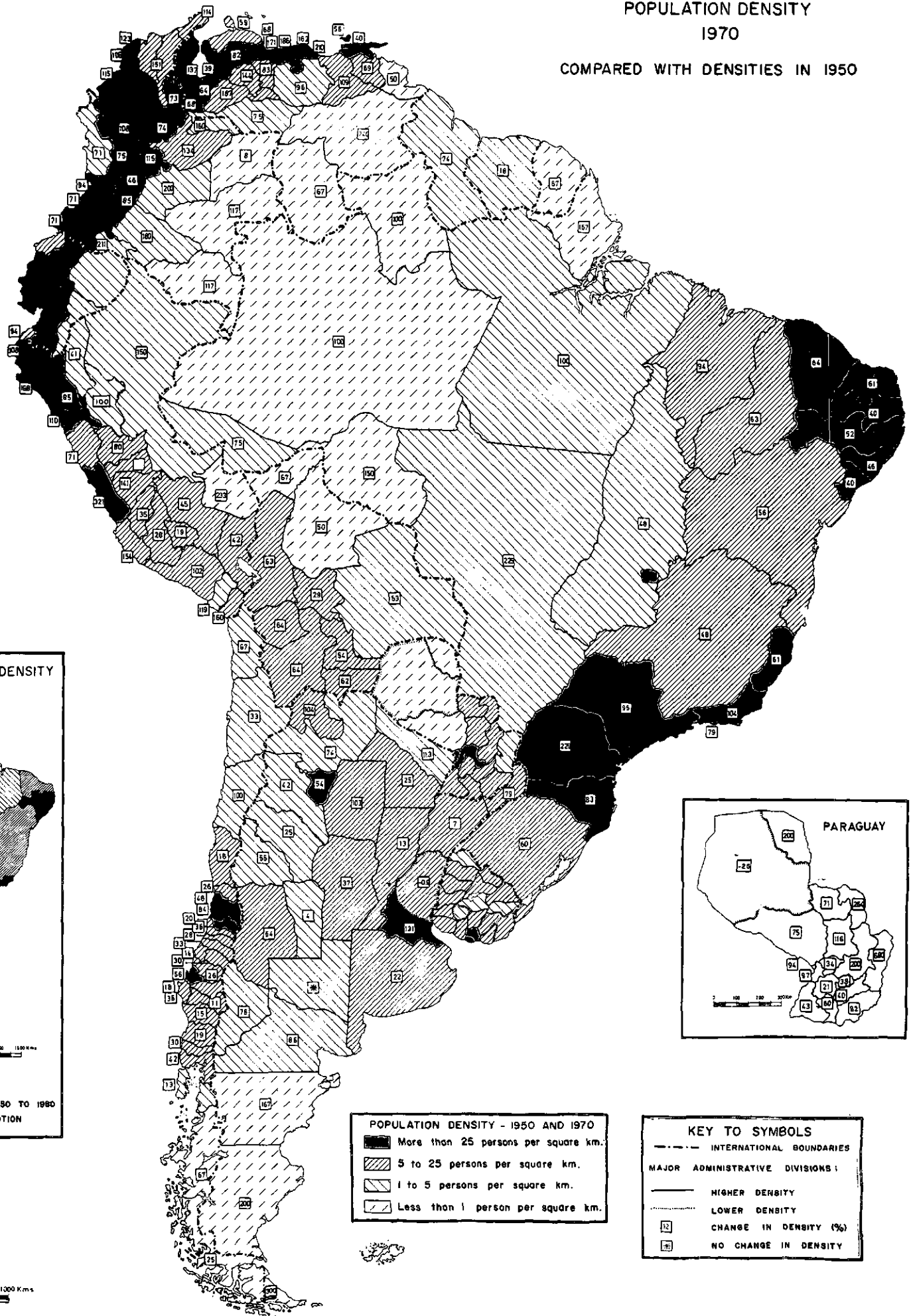
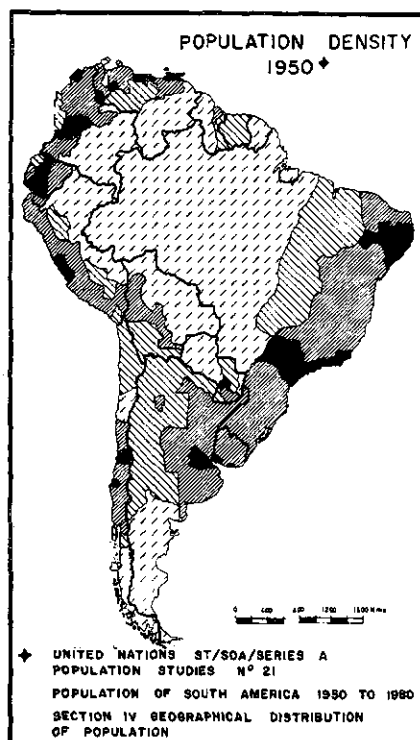
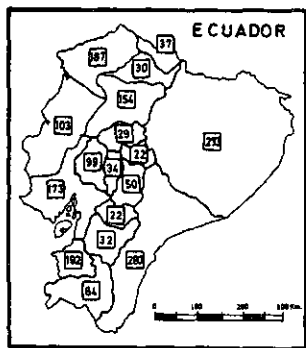
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<sup>6/</sup> The Centro Latinoamericano de Demografía has recently published an exhaustive study of urban growth trends and prospects in the seven most populous countries of the region (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela). (Crecimiento urbano de siete países de América Latina: Tendencias en el período 1940-1970 y perspectivas para 1980 (Santiago de Chile, 1973).)

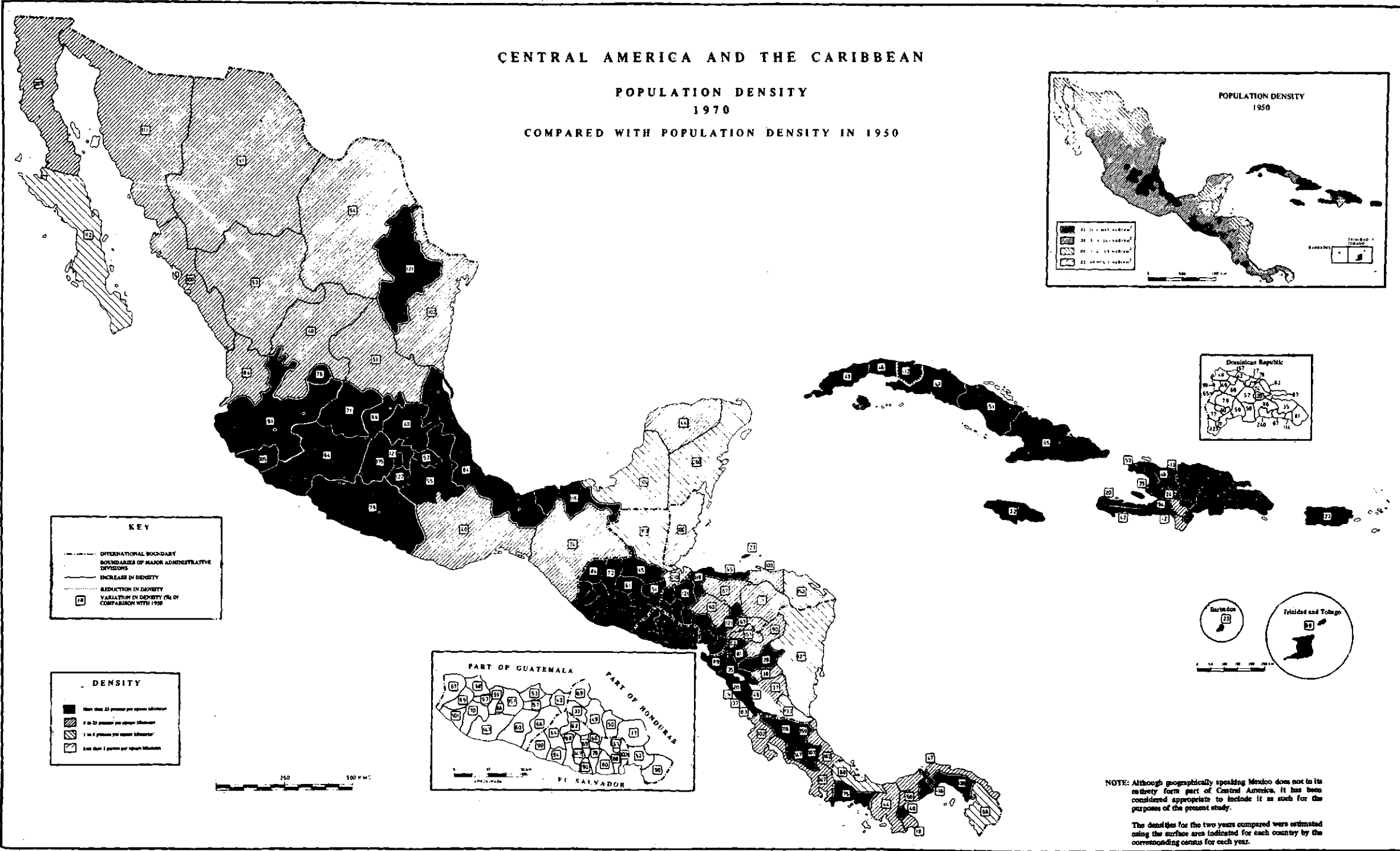


**SOUTH AMERICA  
POPULATION DENSITY  
1970**

COMPARED WITH DENSITIES IN 1950



CENTRAL AMERICA AND THE CARIBBEAN  
 POPULATION DENSITY  
 1970  
 COMPARED WITH POPULATION DENSITY IN 1950



**KEY**

- INTERNATIONAL BOUNDARY
- BOUNDARIES OF MAJOR ADMINISTRATIVE DIVISIONS
- INCREASE IN DENSITY
- REDUCTION IN DENSITY
- 10 VARIATION IN DENSITY (%) IN COMPARISON WITH 1950

**DENSITY**

- More than 25 persons per square kilometer
- ▨ 10 to 25 persons per square kilometer
- ▩ 5 to 10 persons per square kilometer
- ▬ Less than 5 persons per square kilometer

PART OF GUATEMALA  
 PART OF HONDURAS  
 EL SALVADOR

POPULATION DENSITY  
 1950

Dominican Republic

Barbados  
 Trinidad and Tobago

NOTE: Although geographically speaking Mexico does not in its entirety form part of Central America, it has been considered appropriate to include it as such for the purposes of the present study.

The densities for the two years compared were estimated using the surface area indicated for each country by the corresponding census for each year.

growth is accounted for by urban centres with more than 20,000 inhabitants. Calculations of intercensal "rural" population growth (that is, population in localities with fewer than 20,000 inhabitants) indicate that this grew more rapidly in the zones with relatively dense population than in those with sparse population. (See table 2.) The empty land of South America is thus being occupied only to a very limited extent. In the very heart of the continent, the "rural" population of the State of Amazonia and Territory of Rondonia in Brazil, and of the Department of Loreto in Peru remained static.

Table 2

SOUTH AMERICA

	Percentage of area by population density in 1950	Rate of population growth 1950-1970	Percentage of total population 1950	Percentage of total population 1970
<u>Less than 1 per km<sup>2</sup></u>	48.9	126.7	3.7	4.7
<u>1 - 5</u>	21.4	82.8	9.1	9.4
<u>5 - 25</u>	25.2	71.3	48.2	46.2
<u>Over 25</u>	4.5	81.6	39.0	39.7
	100.0		100.0	100.0

Source: ECLA calculations from census data.

Map 2 shows that the relatively dense occupation of the territories of Mexico, Central America and the Caribbean expanded considerably in scope during the 1960s, eliminating the nearly empty zones altogether and reducing the area with fewer than 5 inhabitants per km<sup>2</sup> from 38.4 per cent of the total to 12.4 per cent.

(e) Cultural changes and modernization have been associated with continuing increases in the proportions of the urban population practicing some means of reproduction control or limitation of family size throughout the region, whatever the tenor of official policy in the country or the availability of relevant public services. It is

/probable that

probable that in many if not most countries contraceptives obtained through pharmacies without medical prescription play a larger role than family planning clinics, and that illegal abortions continue to be the most widely used means of preventing unwanted childbirths. The importance of such abortions first came to public notice in the late 1950s in Chile, through the increasing burden on the public health services of emergency treatment for women suffering from botched abortions. Medical records of this kind, which naturally relate to small minorities of the women who have undergone abortions, are still almost the only evidence of the importance of the practice, but it seems clear that throughout Latin America quite high proportions of pregnancies, at least in the larger cities, are now terminated in this way.<sup>7/</sup> This is one of the more striking cases of divorce between the expedients taken by an important part of the urban population to meet felt needs, the values professed by the society, and the services offered by the State.

For present purposes, it is unnecessary to enter into further detail on overall demographic trends that have been often described. The predominant trend is that of enormous increases in the scale of well-known phenomena without qualitative changes of equal importance. At this point, it will be sufficient to distinguish between demographic trends in different types of countries in Latin America, to single out the indications of and potentialities for significant shifts in these trends in some individual countries, and to try to relate national

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<sup>7/</sup> The Secretary of Government of Mexico recently cited an estimate made in a National Health Convention that not less than 500,000 abortions are performed annually in the country, that is, that between 15 and 20 per cent of pregnancies are terminated by provoked abortions. If one assumes that this is mainly an urban phenomenon, the abortion rate in the 35-40 per cent of the Mexican population now living in cities with more than 20,000 inhabitants must be very high. (Consejo Nacional de Población, Secretaría de Gobernación, La revolución demográfica, Mexico, 1974.) Even higher estimates have been made by health authorities in some other countries.

social and economic patterns and public policies to these actual or potential shifts. A grouping of countries by demographic traits coincides, by and large, with groupings based on other societal characteristics:

(a) Four countries (Argentina, Uruguay, Chile and Cuba), with about 15 per cent of the regional population, have either completed a demographic transition to moderate rates of population increase based on moderate fertility and low mortality or are in the midst of such a transition. In these countries, the youthful "dependent" population is well below the regional average, ranging from 38.0 to 27.9 per cent. The aged population is larger, ranging from 4.7 to 9.0 per cent. The intermediate "working age" population is also larger, ranging from 55.6 to 63.6 per cent. During the 1970s, the youthful proportion will continue to shrink and the aged proportion to grow, with the intermediate group remaining more or less stable. In three of these countries, population growth rates remain a good deal higher than the European norm. In Uruguay however, there is reason to believe that in the more recent years out-migration of young adults, stimulated largely by economic stagnation and unemployment of educated youths, although not yet taken into account in the demographic calculations, has brought real population growth to a halt. In Chile, age distribution thus far is closer to the regional average than in the other countries of the group, but the changes during the 1970s will be particularly pronounced, because a steady fall in fertility since the early 1960s is bringing it into closer correspondence with the patterns of the other highly urbanized countries. The Argentine Government, assessing the future population projected from present demographic trends as insufficient for development and defence, is the only one in Latin America to have recently proclaimed a policy to accelerate population increase: by encouraging higher fertility and placing legal restrictions on contraception, on the one hand, and by welcoming migrants from the rest of Latin America, on the other.

/In Cuba,

In Cuba, the birth rate has declined slowly since 1960, from a level already lower than that of any other Latin American country except Argentina and Uruguay. In Cuba, however, the most significant demographic trend has been the moderateness of the rise in the level of urbanization - from 40.3 per cent in 1960 to 46.2 per cent in 1970 living in centres with 20,000 or more inhabitants. The rate of urbanization is thus lower than in most other countries of the region except a few small countries in which urbanization is only incipient, and reflects deliberate policy as well as the whole process of economic and social transformation and the emigration during the 1960s of a part of the urban middle class.<sup>8/</sup>

(b) Five countries (Brazil, Colombia, Mexico, Peru and Venezuela) account for 68 per cent of the regional population and thus dominate regional averages, while their demographic patterns resemble each other more closely than they resemble those of the remaining countries. All of them have rates of population growth at or above the regional average. While their present official population policies differ, all of them have at least a reasonable expectation that by the end of the 1970s declines in fertility, now incipient, will be pronounced enough to outweigh declining mortality and reduce growth rates to some extent. Growth rates are bound to remain quite high, however, and the predominantly youthful character of their populations will persist. The expectations of significant change in demographic patterns are based mainly on the relatively rapid, although highly uneven urbanization and modernization of their societies. The urban population in these countries grew at an average annual rate of 6 per cent between 1960 and 1970, and the rate has certainly not slackened since. Urban growth accounted for nearly 70 per cent of

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<sup>8/</sup> The growth of the main metropolis, Habana, seems to have been practically brought to a halt (although the most recent industrialization policies point toward a resumption of growth), while secondary urban centres have been allowed to grow more rapidly and some new ones have been created. See Maruja Acosta León and Jorge Hardoy, "La urbanización en Cuba", in Martha Schteingart, Comp., op. cit.

/total population

total population growth. In four countries, however, "rural" population also continued to grow at about 1.5 percent annually, and the population in centres with 20 000 or more inhabitants remained in the minority.

Only in Venezuela did urbanization proceed rapidly enough to bring rural population growth to a halt and produce an urban majority of 56.7 per cent in 1970. Venezuela thus now resembles the first group of countries in spatial concentration of population, while differing in the rapidity with which it has attained this concentration and in the continuing high rate of overall population growth, which has thus far declined only slightly, from 3.6 per cent in 1960 to 3.3 in 1970. Official policy has for some time concerned itself with the problem of over-concentration, and has formulated various regional development programmes intended to counteract this, but has not seen a need to influence the rate of population growth.

The two most populous countries of Latin America are Brazil and Mexico and their demographic trends are thus of particular interest. The regions of Brazil have quite different demographic as well as social and economic traits - traits similar to the first group of countries in the south and southeast, traits similar to the third group to be discussed below in the north and northeast - resulting in an overall rate of increase somewhat lower than in the other large countries and declining slowly, from just over 3.0 per cent in 1960 to about 2.8 per cent at present. Official opinion has thus far looked on this rate of increase as positive, but expects the course of development to bring it down. Family planning initiatives have been tolerated and received some incidental support within public health services, and an official statement at the World Population Conference in 1974 indicates that the Government has assumed a responsibility to bring family planning within the reach of low-income families that want it, as a measure of social justice to offset the privileged access of the well-to-do.

/In Brazil,

In Brazil, the demographic consequences expected of urbanization, modernization and industrialization are in fact beginning to become visible, although partially obscured by the very uneven development of internal regions. In Mexico, they are lacking in spite of social and economic change processes that have been profound and of long duration. The Mexican birth rate has continued practically unchanged since 1960, at a level exceeded only by a few of the small predominantly rural countries; the rate of population increase, at 3.2 per cent annually, is now one of the highest in Latin America. This continuing trend has resulted in a sharp reversal of official opinion, previously complacent concerning the high rate of growth. In September 1973, the President presented to Congress a General Population Law with the objective of "regulating the phenomena that affect the volume of the population, its structure, dynamics and distribution in the national territory so that it can participate justly and equitably in the benefits of economic and social development". The Law provides not only for the promotion of family planning activities, but also for reforms in settlement patterns directed against excessive concentration as well as excessive dispersal of population.<sup>9/</sup> In view of the relatively high

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<sup>9/</sup> The text of the law and also an extensive explanation by the Secretary of Government, appearing before the Chamber of Deputies, are to be found in Consejo Nacional de Población, *op. cit.* In regard to spatial distribution policy, the Secretary stated: "Otra cosa que es necesario contribuir a hacer, es a conjugar miles de pequeños poblados con menos de cien o doscientos habitantes que existen en toda la República. Resulta totalmente incoachable desde un punto de vista económico, aunque no lo sea desde un punto de vista político-social, llevar servicios educativos, municipales y sociales a esos rincones apartados. La fragmentación de la población dentro de nuestro territorio es uno de los problemas más serios y también el hacinamiento de grandes núcleos urbanos de desocupados o subocupados, dentro y alrededor de las grandes ciudades. Según el censo de 1970, de las 97 000 localidades del país ... 81 000 tenían una población de menos de mil habitantes y concentraban cerca del 30 por ciento de la población total de México."



operational capacity of the public sector in Mexico, in social services as well as in economic infrastructure, the extensive intervention envisaged in population dynamics deserves close attention.

The Colombian population pattern is similar to that of Mexico, except that urban growth has been distributed among a number of major centres rather than concentrated in one overwhelmingly huge agglomeration. In Colombia too urbanization and economic growth have not appreciably affected high fertility, until very recently at least, and the impact of modernization has been more limited and recent than in either Brazil or Mexico.<sup>10/</sup> Colombia was the first large country in Latin America to formulate an explicit population policy, including promotion of family planning to reduce fertility, and has included population objectives in its development plans since 1969.

The fifth country in this group, Peru, is really in an intermediate position demographically, closer to the third group next to be discussed than are the other large countries. Accelerated urbanization began somewhat later than in the others, and in 1970 only 33.4 per cent of the population lived in centres with more than 20,000 inhabitants. Since 1960, declining mortality has more than compensated for a slight fall in the birth rate, and population increase, at 2.9 per cent annually, is just above the Latin American average, although well below the rates of Colombia and Mexico. As in the case of Brazil, official opinion considers the rate of increase on the whole positive and is more preoccupied with the finding of means to influence spatial distribution, occupy unexploited parts of the national territory, and counteract concentration in the one metropolitan centre, Lima.

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<sup>10/</sup> According to a recent interview with the Director of the Departamento Administrativo Nacional de Estadística (DANE), the preliminary results of the 1973 census and other sources show a fall in the birth rate from 44 per 1,000 population in 1970 to 38 in 1973, resulting in a drop in the population growth rate from 3.2 to 2.95. (El Tiempo, Bogotá, 25 January 1974.) This calculation indicates a decline in the birth rate somewhat more pronounced than the CELADE estimate presented in table 1.

(c) The eleven remaining Latin American countries are much smaller in population size than all the countries in the first two groups except for Uruguay. Altogether, they comprise about 16 per cent of the regional population. Eight of them have population growth rates above the regional average, and in most cases these rates rose during the 1960s. (The Costa Rican rate of increase has fallen until it corresponds to the regional average, and the rates of Bolivia and Haiti are well below it - around 2.5 per cent - because relatively high mortality has continued to offset high fertility.) All of these countries except three are more predominantly rural than the countries in the first two groups, and their rates of urbanization have been more modest. (Panama, Ecuador, and Costa Rica, with between 32 and 37.5 per cent of their population in centres over the 20,000 line are at the lower edge of the range for the countries in the second group.) In 1970, slightly less than one fourth of the combined populations of these countries lived in centres with 20,000 or more inhabitants. Between 1960 and 1970, their combined rate of urban growth was over 5 per cent per year, but the rest of the population increased at a rate over 3 per cent, so that the urban centres absorbed only 37 per cent of total population growth. During the 1970s the rates of population growth of several of these countries may continue to rise somewhat. In Bolivia and Haiti, the potentialities for acceleration of the rate are quite substantial if the mortality rates, still well above the regional average, continue to fall. The continuing predominance of the rural population and the sluggishness of urbanization in most of these countries suggest that a spontaneous demographic transition is unlikely to attain significant momentum in the near future, and their continuing high rates of population growth and low income levels will accentuate their vulnerability in the international economic conjuncture. Official opinion in these countries has been readier than in the larger ones to look to family planning programmes to alleviate the strain, and several of their Governments have formulated targets for reductions in birth rates. However, the capacity of their public health services to undertake family planning

/on the

on the scale required for such a purpose, and the feasibility of major fertility changes in advance of cultural and economic changes have not yet been demonstrated.

The probable exceptions among the small countries are Panama, Ecuador and Costa Rica, for differing reasons. Panama, a relatively urbanized country with a specialized economy, is already experiencing a small but significant drop in fertility. Ecuador may be on the brink of a major economic transformation triggered by oil exports, stimulating rapid urbanization and possibly generating demographic patterns similar to those of Venezuela. The particularly interesting case of Costa Rica has been described in detail in earlier reports. Between 1960 and 1972 the Costa Rican fertility rate fell from 48.0 to 31.6, and the rate of population increase fell from 3.9 per cent, one of the highest in the world, to about 2.8 per cent, although mortality declined markedly during the same period. While family planning has received public support since the mid-1960s and the public programme has undoubtedly contributed to the fertility decline, the latter was well under way before the former could have had an appreciable impact.<sup>11/</sup> The Costa Rica case thus seems to support the argument that lower fertility depends on a change in values concerning family size, deriving from wider social and economic changes, more than on easy availability of the technical means of family limitation.

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<sup>11/</sup> A recent investigation concludes that "it does not appear that the programme could have played a major role in the decline of fertility between 1959-1969". The same source cites estimates that by 1971 70 per cent of urban women and 25-54 per cent of rural women were using contraceptives. The rural percentage must be higher than in any other Latin American country, reflecting the uniqueness of the Costa Rican social structure and the close ties between urban and rural groups. (Jack Reynolds, "Costa Rica: Measuring the Demographic Impact of Family Planning Programs", Studies in Family Planning, 4, 11, November 1973.)

(d) The Caribbean countries and territories (excluding Cuba, Dominican Republic, Haiti, and Puerto Rico) comprise less than 2 per cent of the regional population, but include a wide range of localized demographic as well as economic, cultural and political patterns. They can be divided into two groups: (i) Mainland countries with sparse population concentrated in a small part of the national territory, with high fertility and rates of population increase similar to the Latin American average (Belize, Guyana, and Surinam). (ii) Island units with relatively high population densities, in which emigration was for a time an important safety-valve for population pressures. In the English-speaking Caribbean countries and territories between 1960 and 1970, average annual net emigration amounted to 52 per cent of natural increase, while emigration of males represented fully 80 per cent of total accessions to the male labour force. This safety-valve was increasingly blocked during the 1960s by restrictive measures in the main receiving countries, United Kingdom, Canada and United States, while the nature of the restrictions acted as a screen to accentuate the differential outflow of professionals and skilled workers. During the same period, birth rates declined to levels well below the Latin American average, although the fall has been much more pronounced in some countries (Barbados and Trinidad and Tobago) than in others (Guyana and Jamaica). This trend can be attributed to varying combinations of emigration of women of childbearing age, cultural change, and family planning programmes, which have been officially supported and have had fertility reduction objectives since the 1960s (in Barbados since 1956). Rates of population increase are now between one and two per cent, except in the mainland countries. Even these rates are commonly judged excessively high in view of the smallness of the national territories and the inadequate capacity of the economies to absorb a growing labour force. In fact, here as elsewhere, it seems misleading to attribute the difficulties to population increase per se, although the increase obviously intensifies certain difficulties. As long as the economies retain their specialized and highly dependent character and the gap

/continues to

continues to widen between the urban-oriented aspirations of the labour force and the opportunities offered by the economies, even the attainment of stationary populations might not relieve the tensions appreciably.

As the preceding pages indicate, for most aspects of the demographic context of human development and social change in Latin America it is sufficient to restate well-known trends with some new evidence and changes of emphasis. In relation to the present crises, however, two phenomena need to be looked at more closely - urbanization and migration across national boundaries.

Urbanization. The interplay between catastrophist warnings and relatively optimistic evaluations of urbanization processes in Latin America has been going on for at least three decades. In recent times, concern over environmental degradation has given additional weight to the first point of view and the evident ability of the large cities to continue to modernize, offer higher levels of living to part of their populations, and function, if badly, at least no worse than when they were much smaller, has strengthened the latter. It remains an open question how far present urban growth trends can continue, or whether they can continue indefinitely without becoming non-viable for economic, political, or environmental reasons. The volume of growth of localities with 20,000 or more inhabitants was 65 per cent greater the 1960s than in the 1950s, will continue to be at least 65 per cent greater in the 1970s than in the 1960s, and will continue on an even larger scale during the 1980s, as the population base expands, even if the rate changes and urban growth is distributed over a wider network of cities. During the 1970s the cities will grow by 75 millions, 40 millions being absorbed by cities that will have passed the one million mark by 1980. During the early 1970s complacency concerning the patterns of concentrated urban growth seemed to be gaining ground within the interminable debate. These patterns seemed to be compatible with the prevailing styles of development, or even contributory to their functioning. Their negative aspects could be considered costs to be kept within bearable limits by planning but not to be evaded. A readiness

to accept still higher costs of this kind in the interest of economic growth was evident in the receptivity of governing circles to the transfer of highly polluting industries from countries unable to tolerate their further growth on their own territory. It could not be demonstrated conclusively, although it could be argued plausibly, that costs of urban growth would be more bearable with different patterns of distribution of population and economic activities.

The energy crisis has brought to the fore one aspect of urban growth that is bound to test its viability with increasing severity: the dominance of the automobile. In the larger countries in which structural heterogeneity is most pronounced and the "modern" urban sectors most important, the automobile has become the most dynamic sector of industry, the focus of the consumption aspirations of the growing upper and middle income strata, and the main determinant of spatial patterns of city growth and infrastructural investment.<sup>12/</sup> It is symptomatic that the very rapid population growth of the largest cities has not been accompanied by any general increase in the density of human occupation of space; in a good many cities density has diminished.<sup>13/</sup> The automobile, along with urban land

<sup>12/</sup> Average monthly production (including assembly) of automobiles between 1966 and 1972 increased from 11 thousand to nearly 17 thousand in Argentina; from 11 thousand to more than 36 thousand in Brazil; and from 7 thousand to 14 thousand in Mexico. (Table 45 in United Nations Monthly Bulletin of Statistics, January 1974.)

<sup>13/</sup> According to a recent study four national capitals for which data are available have grown as follows:

	Area in km <sup>2</sup>			Density (population per km <sup>2</sup> )		
	1950	1960	1970	1950	1960	1970
Bogotá	42.1	73.6	136.1	14 737	17 278	18 560
Lima	108.7 (1954)	142.1 (1959)	254.8	10 899 (1954)	10 366 (1959)	9 963
Mexico City	175.7	411.7	742.2	16 080	12 104	11 768
Santiago	155.7	288.8	294.5	8 692	8 336	9 438

Source: Ligia Herrera, "Los sitios de ubicación y el crecimiento de las ciudades", Notas de Población, CELADE, 1, April 1973.

/speculation and

speculation and other factors, has encouraged the cities to sprawl over the countryside, transforming within a few years their previously compact and centralized settlement patterns, changing upper-class residential preferences from central locations to suburbia. Any serious threat to continuing increase in automobile ownership and use, such as the high price of gasoline and the need to restrict national imports of oil, thus not only affects the livelihood of an important part of the urban labour force and the consumption aspirations of the strata in which purchasing power is concentrated; but also places a major additional strain on the capacity of the cities to continue to function and grow.<sup>14/</sup>

14/ "Las políticas de estímulo al vehículo privado y al consumo de combustible subsidiado, han creado no sólo costos que pudiéramos llamar directos - como son el uso de divisas para ensamblar o importar autos, o la pérdida de divisas que podrían generarse si exportáramos gasolina a los altos precios actuales en lugar de consumirla a precios subsidiados - sino también costos indirectos pero muy obvios. Son estos los resultantes de la extensión de las ciudades, que crecen y absorben más tierra en ocasiones de alto valor agrícola. Paradójicamente, mientras más se estimule el automóvil particular, mayores serán las necesidades de transporte urbano porque el transporte individual favorece la extensión de las ciudades y más gente se aleja de los centros. Para los menos pudientes la comunidad se ve obligada a ofrecer transporte colectivo; y, y para todos, más calles, más servicios públicos a grandes distancias y más tierra para estacionamiento de vehículos. ... Una de las lecciones más importantes que hemos ido aprendiendo, es la de que los problemas del transporte no se resuelven solamente ofreciendo más transporte. Todas las grandes ciudades han comenzado con la mayor expansión en el servicio de buses y de calles más amplias y largas, para seguir con el tren subterráneo, el monorriel, etc. Cada vez se gasta más pero el problema sigue creciendo. ... El transporte, representa el 13% de los gastos en consumo de los grupos de bajos ingresos y el 3% de los de mayor ingreso. Bajo tales condiciones se podría justificar el subsidio para los más pobres pero en ningún caso para los usuarios de los automóviles particulares que consumen cerca del 30% de la gasolina del país. ... Los estudios urbanos y de transporte nos indican cifras preocupantes sobre el costo del vehículo particular. El costo social de uno de estos vehículos fluctúa entre \$200 000 y \$300 000 (pesos de 1973) de los cuales el 30% corresponde al costo de capital del vehículo, el 20% a vías, el 20% a estacionamiento y el 30% a su operación. Las vías son subsidiadas por el presupuesto nacional, departamental o municipal, la tierra para estacionamiento por la valorización social de la misma y la operación por el precio de (Cont.)

Migration across national frontiers. Up to the 1930s immigration from outside the region was important to most of Latin America: mass immigration of European manpower changed the composition and accelerated the growth of the populations of Argentina, Uruguay and Southern Brazil; smaller-scale immigration of professionals, merchants, plantation managers, mining specialists, skilled artisans and agricultural colonists helped to transform most of the other countries economically and culturally. Between the 1930s and the 1960s, the importance of international migration declined sharply, except in Venezuela. It no longer made a significant quantitative contribution to population growth in the region, while the qualitative importance of the more specialized immigrants also declined as the domestic supply of skills increased and nationals, including the children of immigrants, took over most of their former roles.

During the 1960s, migration across national frontiers has been regaining importance, although its volume in relation to the much larger population base is still moderate. Its character has changed completely. First, Latin America is now a region of net emigration. Second, migration between countries in the region, previously small, is attaining considerable dimensions. The currents of migration from Latin America to the rest of the world and the currents from one country to another are both made up of several very different types of migrants. The rising importance of each type of migration reflects directly the patterns of structurally heterogeneous economic growth and socio-political change discussed elsewhere in this chapter:

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14/ (Cont.) los combustibles. No es difícil concluir que el Estado financia cerca del 50% del costo del transporte particular. ... Los estudios urbanos de Bogotá indican que, de continuar las tendencias actuales, en vez de un 13% de familias con automóvil, tendremos en esta ciudad un 33% para 1990 lo cual representa un parque de 673 000 vehículos. El costo económico en pesos de 1973 será superior a los \$24 000 millones. Se requerirá un área de dos veces el tamaño del área actual de la ciudad para atender las necesidades de esos automóviles." (Luis Eduardo Rosas, Temas sobre el desarrollo de Colombia, Departamento Nacional de Planeación, Bogotá, July 1974, pp. 103-105.)

/(a) Unskilled



(a) Unskilled workers, mainly from the poorer rural strata of countries with high rural underemployment have been moving in increasing numbers directly across land frontiers, seeking work mainly in agriculture, but to some extent also entering construction, industry, and domestic service, and settling as squatters in unoccupied zones near the frontiers. The main movements within Latin America have been from Bolivia, Chile and Paraguay into Argentina; from Colombia into Venezuela; from El Salvador into Honduras; and most recently from Colombia into Ecuador. The only important movement of this kind to a country outside the region is that Mexican workers to the United States, since this is the only case of a land frontier with a non-Latin American country that can be crossed with relatively ease by nearly penniless migrants. Quantitatively this type of migration - which is really an internationalization of the rural-urban migration occurring within each country - seems to be much more important than the others.

(b) Skilled and semi-skilled workers seeking various kinds of urban employment are moving on a relatively limited scale but over much greater distances and to more varied destinations. This type of migration, like the third type described below, is more subject to regulation, and is encouraged and aided by some of the countries of immigration outside Latin America. Australia and Canada have become important destinations for such emigration and Chile and Uruguay are particularly important contributors of migrants.

(c) The much-discussed "brain drain" of university-educated professionals and technicians affects all the Latin American countries to some extent, and the emigrants are widely distributed over Europe, Australia, Canada, and the United States; within Latin America the main destinations are Argentina, Mexico and Venezuela. In some professions, particularly engineering and medicine, the term "drain" is really appropriate; the "rich" countries needed more of these professionals than they were turning out, and could offer better material inducements and a cultural environment corresponding better to the education received than could the country of origin. In other professions, the phenomenon is much more an expulsion of brains than a drain. The universities are

/turning out

turning out, at accelerating rates, more economists, sociologists, architects, etc., than the societies can absorb. A study of professional emigrants from Latin America to the United States between 1959 and 1967 indicates a very marked inverse relationship between national output of professionals and the rate of emigration. In all of the longer-urbanized countries and the more populous countries (the first and second groups distinguished above) the ratio of professional emigrants to professional graduates was less than 4 per cent, with the exceptions of Mexico (5.6 per cent) and Colombia (10.2 per cent). In all of the smaller countries (the third demographic group) except Panama and Paraguay the ratio was above 11 per cent, in spite of much lower ratios of professional graduates to population economically active; in El Salvador, Honduras and Nicaragua, the ratios were over 23 per cent.<sup>15/</sup> The ratios must have risen considerably in more recent years for some of the countries with hypertrophied higher education, particularly Chile and Uruguay, but the conclusion that the countries that produce fewest professional graduates are least capable of holding the ones they do produce is probably still valid.

(d) Politically-motivated emigration, originating mainly in the urban middle strata and to a lesser extent in the urban working class, is nothing new, but rarely took on a mass character prior to the 1960s. Since then, relatively large numbers - in the tens or hundreds of thousands - have moved from a few countries at the extremes of the political spectrum, and smaller numbers have moved from many other countries. These movements are no longer limited to persons in physical danger because of their political dissidence. They include much large numbers suffering from some degree of discrimination (in respect of access to university or public or private employment), economic insecurity, fear of the future, or incompatibility between their values

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<sup>15/</sup> Unidad de Desarrollo Tecnológico, Unión Panamericana, Algunas características de la emigración de profesionales y técnicos de América Latina a los Estados Unidos (Washington, D.C., June 1968).

and the dominant style of development. This category of migrants overlaps to a considerable degree with the second and third categories described above, and possibly even with the first, in cases where conflicts have occurred in rural areas and where the more active members must seek work elsewhere. Political dissatisfaction and discrimination can reinforce economic or vice versa to enhance the propensity to emigrate.

By their very nature these different currents of international migration are not subject to accurate statistical recording, since many of the migrants cross frontiers illicitly or without work permits, and subsist precariously within the country of immigration. This is true of an unknown proportion even among the professionals and skilled workers, who may enter as students or tourists and stay to work. The proportion must be higher among the politically-motivated migrants and highest among the unskilled migrants of rural origin. An International Labour Organisation publication recently conjectured that 5 million emigrants are working outside their own country in South America alone, against a few hundred thousand recorded by official statistics. According to the same conjecture, one million out of a million and a half foreign workers in Argentina may be in an irregular situation.<sup>16/</sup> The number of Colombians in Venezuela - mainly unregistered rural workers - has been estimated at 500,000. A recent statement by the Attorney-General of the United States estimated the number of illegal immigrants in the country at 4 to 7 millions, the majority coming from Mexico; 800,000 were apprehended in 1973; other estimates have placed the number as high as 12 millions.<sup>17/</sup>

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<sup>16/</sup> ILO, Informaciones, October 1974. In the first few months of 1974, following an offer by the Argentine Government to allow such migrants to regularize their situation, about 100,000 registered.

<sup>17/</sup> International Herald Tribune, 4 November 1974. The new Population Law of Mexico includes provisions seeking to protect temporary emigrants seeking work. In his explanation of the Law to the Chamber of Deputies the Secretary of Government commented: "... cada vez que se presenta el tiempo de la cosecha de algodón o de otros productos, las grandes corrientes migratorias dettrabajadores mexicanos cruzan una frontera tan bien protegida y (Cont.)

The different migratory currents are raising questions of human rights and social policy too complex to be discussed here.<sup>18/</sup> The unskilled migrants are subject to exploitation without legal recourse; their concentration in city slums and in frontiers zones excites nationalist prejudices, frequently with racist overtones. The professionals and other skilled and educated migrants face different kinds of discrimination and conflict, the positions of the politically motivated being particularly precarious. At the same time the countries of origin are losing many kinds of human resources, although largely resources that the prevailing styles of development cannot use or trust.

The present international crises, combining with demographic trends, educational trends and political trends, have very serious implications for these growing currents of migration across national frontiers. They suggest that pressures to emigrate, because of rural poverty, because of contraction of the urban labour market, because of excess of higher educational output over effective demand of the societies, because of personal incompatibility with authoritarian strategies for coping with the crises, will all become more intense, while receptivity to immigrants, in Latin America and also in the "rich" countries will shrink, also for various combinations of economic and political reasons.

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<sup>17/</sup> (Cont.) tan bien guardada como la norteamericana y encuentren siempre acomodo en las granjas ...; y cada vez que termina la cosecha y que termina la recolecta, esa miopía cíclica de los vigilantes migratorios norteamericanos se transforme y entonces descubren que hay medio millón de mexicanos trabajando para las granjas y para las zonas agrícolas. ... ellos son que tienen las necesidades de trabajo, la capacidad de absorción que hace que medio millón de mexicanos emigren a veces bajo un falso espejismo a trabajar en las granjas de la frontera, y aunque ellos no quieran y aunque sus leyes migratorias sean cerradas y digan que no pueden entrar medio millón de trabajadores mexicanos, la realidad es que todos los años entran." (Consejo Nacional de Población, op. cit., pp. 69-71.)

<sup>18/</sup> See ECLA, Población y desarrollo, op. cit., chapter VIII, "Población y derechos humanos en América Latina: Algunas interrogantes".

D. SOCIAL STRATIFICATION, INCOME DISTRIBUTION AND  
STRUCTURE OF EMPLOYMENT

Discussions of social stratification and mobility in Latin America have long been dominated by two preoccupations: (i) to distinguish classes or key groups comparable to those instrumental in the development of the countries now industrialized and define for them roles and strategies within determined theories of development; (ii) to assess the identifiable patterns of stratification and mobility against standards for social justice, for the achievement of political participation and stability, and for the carrying out of essential societal functions.

Both preoccupations have contended with the fragmentariness and ambiguity of the information at hand.<sup>19/</sup> They have had to depend on occupational, educational and income distribution data, mainly from national censuses and a certain number of sample surveys, that were not designed to answer stratification questions, that lump together widely differing phenomena inherent in the situations of structural heterogeneity, that present many problems of comparability between countries and between time periods, and that generally become available after long delays. At best, such data throw only a dim light on the

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<sup>19/</sup> The only large-scale sample surveys focussed on social mobility continue to be those carried out in four of the largest cities - Buenos Aires, Montevideo, Rio de Janeiro and Santiago - between 1959 and 1962, and in Mexico City (with similar methodology but under different auspices) in 1966. The findings of these surveys have never been fully analysed nor published, largely, it would seem, because their scale was so ambitious that the field work exhausted the interest and resources of the sponsoring institutions. More modest field investigations bearing on social stratification and mobility, after a period of increase during the 1950s and the 1960s, have fallen off again, partly because of reactions against the external auspices and methodologies with which they were associated, partly because of the increasingly precarious situations of many social research institutions and the political sensitiveness of the questions being explored. At the same time, sociological preoccupation with polemics over broad theoretical and historical explanations of the plight of Latin America - in particular, "dependence" and "imperialism" - became associated with a certain contempt for pedestrian empirical investigation.

degree of correspondence with reality of the concepts - such as "middle class", "proletariat" and "marginal mass" - on which different ideological currents rely in their quest for politically operational conclusions. Information bearing on stratification from the 1970 round of censuses began to become available only in 1974.

Plausible generalizations have thus been handed down in the absence of new evidence, or refuted under the same conditions, possibly because of the later analysts' need to demonstrate originality. Behind this unsatisfactory situation, there seems to be a good deal of ambiguity inherent in the trends themselves, and a diversity of local situations great enough to permit the finding of some evidence to support almost any generalization. For the most part, social classes have not emerged in a clearcut way to play the roles allocated to them in various developmental ideologies, and the transitory character of certain mobilizations suggests that, at least in some national settings, an illusory reality has been conferred on the "classes" by élites or counter-élites seeking mass backing for their own strategies. Changes in social stratification forecast a few years ago must have taken place, at least in part, without having the transforming impact on the economies and societies expected of them.

#### 1. Occupational stratification

It is now possible to make certain tentative statements concerning recent social structural mobility on the basis of comparative occupational data from censuses and household surveys (the latter carried out by the Atlantila project) made around 1960 and around 1970. This kind of comparison of occupational stratification at two points of time leaves out of account several types of occupational mobility - in particular the extent to which the ascent of some individuals on the occupational ladder offsets the descent of others, and the extent of compensatory horizontal shifts between occupational groups. It thus indicates the minimum dimensions of mobility. The trends thus revealed can be compared with trends in the distribution of incomes and the distribution of education. In general terms, all of these indicators

/suggest increases

suggest increases in the relative size of urban groups in upper and middle strata. The differential expansion of secondary and higher education has been more pronounced than the differential expansion of occupational sectors classified as upper and middle, and this in turn has been much more pronounced than the corresponding shift in incomes. Such differential rates of change are to be expected within the prevailing styles of development in which concentrated economic and political power has confronted pressures for wider participation. Educational expansion has proved the cheapest method for the short term of responding to these pressures; widening of occupational opportunities for sizeable minorities has also been practicable; but income concentration, closer to the central concerns of power, has proved relatively inflexible.

The occupational data usable at present refer to nine countries. Three of these (Argentina, Chile and Uruguay) constitute the group of longer-urbanized countries with relatively low rates of population growth and relatively high educational and income levels. One (Venezuela) has rapidly achieved many of the statistical traits of this group, but in conjunction with quite different economic and demographic patterns. Another (Brazil) is the largest country of the region, characterized by rapid population growth and urbanization and particularly pronounced structural heterogeneity. Two (Costa Rica and Panama) are small countries with combinations of traits unique in the region. The remaining two (Ecuador and Paraguay) were, up to 1970, more typical of the predominantly rural small countries.

Information for the nine countries appears in percentage form in table 3. The percentages for Costa Rica and Ecuador cover the urban population alone and those for Uruguay, Montevideo alone, while data for the other six countries are national. It should be kept in mind that because of large increases in the size of the employed population during the 1960s in all countries except Uruguay declining percentages do not, except in extreme cases, mean declining absolute numbers in an occupational grouping, while rising percentages mean very large increases in absolute numbers.

Table 3  
OCCUPATIONAL STRATA, 1960-1970

	Argentina		Brazil		Costa Rica		Chile		Ecuador		Panama		Paraguay		Uruguay		Venezuela	
	1960	1970	1960	1972	1963	1970	1960	1970	1962	1968	1960	1970	1962	1972	1963	1970	1960	1973
<b>I. Middle and upper strata (other than primary occupations)</b>	<u>31.4</u>	<u>32.2</u>	<u>15.0</u>	<u>23.3</u>	<u>33.6</u>	<u>46.2</u>	<u>20.3</u>	<u>27.8</u>	<u>25.0</u>	<u>39.8</u>	<u>16.4</u>	<u>21.8</u>	<u>11.8</u>	<u>13.9</u>	<u>50.9</u>	<u>45.8</u>	<u>23.9</u>	<u>36.8</u>
a) Employers	8.2	4.3	1.9	4.1	3.0	6.0	1.5	2.4	1.7	4.1	1.3	1.0	1.2	1.4	8.4	5.6	1.8	3.6
b) Self-employed with own commercial establishment	2.4	4.4	0.2	1.6	4.4	3.1	3.7	4.9	9.1	12.1	0.9	1.3	2.7	3.1	3.0	3.8	5.4	7.0
c) Independent professionals and semi-professionals	0.7	1.2	0.7	0.5	0.5	0.3	0.6	0.6	0.7	1.3	0.3	0.3	0.6	0.6	2.5	1.5	0.4	0.6
d) Dependent professionals	4.7	5.5	2.6	4.3	9.4	11.0	4.0	6.2	5.3	7.2	4.3	5.4	2.6	3.1	7.5	7.3	4.8	8.2
e) Managerial personnel	1.1	4.2	2.6	12.8	1.9	3.4	1.4	1.2	0.4	1.1	1.7	2.4	0.3	0.4	1.3	0.8	1.0	1.3
f) Employees, sales personnel, auxiliaries	14.3	12.7	7.0		14.4	22.4	9.2	12.5	7.8	14.0	7.9	11.3	4.4	5.3	28.2	26.8	10.5	16.1
<b>II. Lower strata in secondary sector</b>	<u>30.8</u>	<u>34.0</u>	<u>22.7</u>	<u>20.1</u>	<u>32.4</u>	<u>31.3</u>	<u>32.4</u>	<u>31.9</u>	<u>38.2</u>	<u>34.7</u>	<u>16.6</u>	<u>23.7</u>	<u>21.3</u>	<u>23.5</u>	<u>30.1</u>	<u>36.1</u>	<u>26.0</u>	<u>30.2</u>
a) Wage workers	26.5	27.5	15.2	14.6	25.1	26.1	26.1	25.2	19.2	22.5	12.5	18.4	11.2	13.0	25.0	29.5	19.3	22.5
b) Own-account workers and unpaid family workers	4.3	6.6	7.5	5.5	7.3	5.2	6.3	6.1	19.0	12.2	4.1	5.3	10.1	10.5	5.1	6.6	6.7	7.7
<b>III. Lower strata in tertiary sector</b>	<u>8.9</u>	<u>9.9</u>	<u>7.1</u>	<u>7.9</u>	<u>16.5</u>	<u>15.7</u>	<u>13.4</u>	<u>12.0</u>	<u>14.8</u>	<u>17.7</u>	<u>10.9</u>	<u>12.7</u>	<u>7.8</u>	<u>7.7</u>	<u>14.9</u>	<u>14.3</u>	<u>11.4</u>	<u>12.6</u>
a) Wage workers in services	8.3	9.1	6.7	6.5	15.2	15.0	12.3	10.9	12.4	13.9	9.5	10.7	7.2	6.8	13.9	12.7	10.0	10.7
b) Own-account workers and unpaid family workers in services	0.6	0.9	0.4	1.4	1.3	0.7	1.1	1.1	2.4	3.9	1.4	2.0	0.6	0.9	1.0	1.6	1.4	1.9
<b>IV. Middle and upper strata in primary sector</b>	<u>3.4</u>	<u>1.3</u>	<u>0.1</u>	<u>0.1</u>	<u>1.3</u>	<u>1.1</u>	<u>0.5</u>	<u>0.8</u>	<u>1.2</u>	<u>1.0</u>	<u>0.6</u>	<u>0.2</u>	<u>1.3</u>	<u>0.6</u>	<u>0.3</u>	<u>0.6</u>	<u>0.9</u>	<u>1.0</u>
a) Employers in agriculture and extractive enterprises	3.4	1.3	0.1	0.1	1.3	1.1	0.5	0.8	1.2	1.0	0.6	0.2	1.3	0.6	0.3	0.6	0.9	1.0
<b>V. Lower strata in primary sector</b>	<u>14.9</u>	<u>13.1</u>	<u>50.9</u>	<u>40.2</u>	<u>12.6</u>	<u>4.8</u>	<u>29.9</u>	<u>24.4</u>	<u>18.9</u>	<u>6.1</u>	<u>43.5</u>	<u>36.9</u>	<u>51.0</u>	<u>48.9</u>	<u>0.5</u>	<u>1.4</u>	<u>22.7</u>	<u>19.7</u>
a) Rural wage workers	9.5	7.8	14.2	11.8	8.3	3.9	21.7	16.5	10.6	3.9	6.3	6.8	11.0	9.3	0.4	0.5	11.6	7.1
b) Own-account workers and unpaid family workers	5.4	5.3	36.7	28.4	4.3	0.9	8.2	7.9	8.3	2.2	37.2	30.1	40.0	39.6	0.1	0.9	21.1	12.0
<b>VI. Other (unclassified residual, probably mainly in primary sector)</b>	<u>10.6</u>	<u>9.5</u>	<u>4.3</u>	<u>8.4</u>	<u>3.6</u>	<u>0.9</u>	<u>3.2</u>	<u>3.7</u>	<u>1.9</u>	<u>0.7</u>	<u>12.0</u>	<u>4.7</u>	<u>6.8</u>	<u>5.4</u>	<u>3.3</u>	<u>1.8</u>	<u>5.1</u>	<u>0.3</u>
<b>Total</b>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Sources and coverages: Argentina: 1960 and 1970, samples from censuses for whole country.  
Brazil: 1960, sample from census for whole country; 1972, sample surveys in 6 regions. There may be a sampling error in the very low percentages for middle and upper strata in the primary sector.  
Costa Rica: 1963 and 1970, sample surveys covering urban zones.  
Chile: 1960, sample from census; 1970, census. Whole country in both years.  
Ecuador: 1962 and 1968, sample surveys covering urban zones.  
Panama: 1960 and 1970, samples from censuses for whole country.  
Paraguay: 1962 and 1972, samples from censuses for whole country.  
Uruguay: 1963, sample from census; 1970, sample surveys. Montevideo only in both years.  
Venezuela: 1960, census; 1973, sample surveys. Whole country in both years.



The character of the information does not permit the distinguishing of "upper" from "middle" occupational strata, and it is not worthwhile for present purposes to divide these strata between "secondary" and "tertiary" occupations. In the case of employers, for example, the data do not indicate number of persons employed nor volume of capital. The category thus includes situations not very different from self-employment (a shopkeeper hiring one or two assistants) as well as the largest entrepreneurs. The categories of "self-employed with own commercial establishment" and "employees, salesmen and assistants" both comprise very heterogeneous situations, and are included among the upper and middle strata because of the social status of independent entrepreneurship and "white-collar" employment rather than because of confidence in the presence of any clearcut income differentiation from the wage workers in the second and third main groupings.

In four of the six countries with nationwide data, the relative importance of the lower strata employed in the primary sector (mainly agriculture) has declined sharply, as might have been expected, with a particularly spectacular drop in Venezuela, from 32.7 per cent to 19.1 per cent of the employed population. In Argentina and Paraguay, the percentage decreases were relatively small; in the first case because the agricultural labour force was in 1960 already only a small percentage of the employed population; in the second case because urbanization has been limited and the overall shifts in economic activities influencing stratification less pronounced than elsewhere.

The urban lower strata in secondary and tertiary occupations remained stable or declined in relative importance in the majority of countries, rising significantly in Argentina, Panama, Uruguay and Venezuela, presumably for quite different reasons. It is particularly striking that these strata lost ground in relative terms in Brazil, in a period of rapid urban growth and even more rapid economic growth in the secondary and tertiary sectors. In all countries except Paraguay wage labour is several times more important percentage-wise than self-employment in the secondary as well as the tertiary sector,

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but the figures do not show any consistent trend toward decline in the importance of self-employment between 1960 and 1970. Contrary to what might have been expected from previous discussions of underemployment and marginality there is also no consistent trend toward increase of the relative size of the lower strata in tertiary occupations. The importance of the self-employed tertiary group, supposed to include the most precarious low-income occupations, remains quite small.

The overall stability in the relative size of the urban lower strata reflects the well-known incapacity of industry to absorb a significantly larger part of the urban labour force under present technological trends. It must also indicate, however, that the urban societies have more effective mechanisms than was previously believed for upward mobility into the lower reaches of the middle strata, offsetting the continual flow of rural and small-town migrants. The result is that neither the "proletariat" (the workers employed in the more "modern" occupations, assumed to be essential to the functioning of the productive system and particularly capable of organized action) nor the "sub-proletariat" or "urban marginal strata" (the groups whose poverty and precarious access to employment seem to make their interests particularly incompatible with the prevailing style) are increasing their relative weight within the societies.20/

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20/ For various reasons, the census data on which the percentages are based do not permit any reliable estimate of the real importance of the "sub-proletariat", particularly when converted into the highly aggregated occupational categories used here. (Part of it may even be concealed in categories (b) and (f) within the "urban upper and middle strata".) However, this difficulty does not invalidate the conclusion concerning lack of evidence of its increase in relative importance. The use of different base years might also support different conclusions. Paul Singer has found evidence in Brazilian census data for 1950 and 1970 that the sub-proletariat did grow more rapidly than the urban labour force as a whole; the combined percentages in domestic service, street vending, etc., rose from 11.1 to 12.7 per cent of the non-agricultural labour force. ("Repercusiones de la dinámica poblacional brasileña en lo económico-social", Notas de Población, Centro Latinoamericano de Demografía, II, 5, august, 1974.)

/The most

The most striking change shown by the occupational statistics is the rise in relative importance of the urban upper and middle strata. Their growth practically compensates for the decline of the lower strata in primary occupations. All of the occupational categories within these strata share in the gains except for the independent professionals and semi-professionals. The trend is similar in countries with very diverse economic structures and levels of urbanization, being most pronounced in Venezuela, where the urban middle and upper strata have increased from less than a quarter to more than a third of a very rapidly growing national population.

The only exception is Uruguay, and it is a very significant exception. Here the urban middle strata have for a long time constituted a higher proportion of the population than in any other country, save possibly Argentina, with a particularly important representation of public employees. Prolonged economic stagnation, to which the occupational structure presumably contributed, made the continuation of an occupational distribution of this kind increasingly precarious. It is probable that the fall in the middle and upper strata between 1963 and 1970 and the compensatory rise in lower-strata secondary-sector employment derives mainly from differential emigration of professionals, small entrepreneurs, and persons educationally qualified for white-collar employment.

A breakdown of structural mobility by age groups indicates that the group 20-29 years of age in 1970 accounts for the greater part of the movement into middle and higher occupational categories; that is, the group that benefitted from rapid expansion of middle and higher education and entered the labour market during the 1960s. Since the expansion of such education was much more rapid than the expansion of occupational opportunities, it follows that the holders of the middle and upper occupational positions were, on the average, somewhat under-educated for them around 1960 and somewhat over-educated around 1970.

Increases of such magnitude in the relative importance of the urban upper and middle occupational strata during the short space of a decade suggest a number of questions. Can trends of this kind continue much

/longer and

longer and up to what maxima in the different types of national society in the region? How does this enormous mass of persons, most of whom presumably enjoy above-average incomes and many of whom contribute only indirectly, if at all, to production, affect the functioning of the economic systems? What are their preferences or images concerning the future of their societies and how does their political participation influence the prevailing style of development? Does Uruguay foreshadow similar crises in the evolution of the upper and middle strata elsewhere? What have been the causes of such rapid growth?

Information limited to internally heterogeneous occupational aggregates permits only tentative answers to such questions. The growth of the strata under observation has already proceeded farther than might have been thought economically viable a few years ago, and the patterns of economic growth have been shaped to an important extent by their demands as consumers. In the larger countries with rapidly growing and diversifying economies, or with public sectors able to count on expanding oil revenues, considerable increases may still be in the cards, although hardly at past rates for much longer. In the smaller countries dependent on agricultural exports or on minerals less in demand than oil, the economic limit must be less flexible and the need to find other means of dissipating social tensions more urgent.

The category of employers in the secondary and tertiary sectors - the group presumably most relevant to the productive capacity of the societies - has increased more rapidly than any of the others, doubling its share of the national active populations, but remains a quite small fraction of the total. Meanwhile, the upper and middle strata in the primary sector, consisting in large part of agricultural employers, have remained insignificant in numbers. (Argentina is an exception here; the percentages of urban employers and primary sector employers both declined very sharply; it is uncertain how much of this is owing to a real concentration of economic activities and how much to intercensal changes in statistical classifications.) The data do not demonstrate that broadening of property ownership or the emergence of small and medium entrepreneurs have had more than a minor role in the

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increase of the upper and middle strata. In spite of declared policies in a good many countries, the concentration of control of productive activities is probably as great as ever.

The professionals and semi-professionals dependent on salaries show high rates of growth, from bases considerably larger than the category of employers. Professional groups in this capacity have particularly strong organized capacity to insist that the society make use of their services and remunerate them at their own valuation. The category in Venezuela has nearly doubled its representation and now constitutes one in twelve of the active population; in Chile it is one in sixteen; in Argentina and Panama more than one in twenty; and in Brazil nearly one in twenty. While the category undoubtedly includes essential developmental specializations that are in short supply, its rate of increase and its internal composition have been determined more by the unbalanced growth of the educational systems, to be discussed below, than by societal needs that might be deduced from the national styles of development.

The category of white-collar employees, sales personnel, etc., in 1970 comprised one out of six active persons in Venezuela, one out of eight in Argentina and Chile, one out of nine in Panama, and presumably about one out of ten in Brazil, where it has been lumped together with managerial personnel. In Costa Rica and Uruguay the same category accounts for a quarter of the urban active population. Such proportions of employees and salesmen in the urban populations presumably indicate both a great deal of low-productivity intermediary activity in urban commerce and the continuing expansion of the public administration, at a well-known price of self-defeating complexity and make-work procedures.<sup>21/</sup>

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<sup>21/</sup> The reclassification of occupational positions associated with rising formal educational qualifications and with group struggles to gain a more privileged legal status as "employees" rather than "workers" is of some importance here. Even if the same activity has been given a new title between 1960 and 1970, thus swelling the relative size of the category of employees, etc., the change presumably means a perceived improvement in status, if not in remuneration.

In brief, the most significant factor among those contributing to the growth in relative importance of the urban upper and middle occupational strata seems to have been the assumption of a special role by the State, capturing considerable resources from the economic system - or from foreign credits - and applying them to creation of employment for professionals, technicians, and miscellaneous white-collar personnel; as well as to the expansion of an educational system that insures continually rising demands for such positions. The process has functioned with least difficulty in the presence of concentrated high-productivity economic activities from which a surplus could be extracted without discouraging production. This process, with the associated expansion of public social services, has been a fairly effective safety-valve for the pressures and discontents associated with urbanization, and has also helped stimulate consumer-goods industrialization and urban private service activities through the broadening of consumer demand. The middle-level beneficiaries, normally unorganized and lacking clear images of the kind of society they want, demonstrate strong defensive reactions when their advantages or hopes from the prevailing styles seem threatened. At some point, however, the combination of rising consumption aspirations and rising numbers trying to enter the privileged strata through the channels of education and political participation must endanger the capacity of the economic system to maintain a minimum level of capitalization, and threaten the capacity of the economically and politically dominant groups (internal or external) to control it. At that point, a reversal of the trend can be expected, under conditions of extreme tension, with the lower strata as well as the weaker components of the middle strata forced to pay the greater part of the cost through compression of wage levels and job opportunities. It has been suggested that the expansion of the middle strata up to the limits of economic capacity, followed by a painful reversal and then by a resumption of the trend under improved economic conditions, can be cyclical; that something of the kind occurred in the 1950s when the economies were more specialized and export-oriented and the proportions of national population affected were much smaller.

## 2. Income distribution

Income distribution data throw a different light on the trends, suggesting a higher degree of concentration of the fruits of economic growth than do the occupational data, but confirming for the majority of countries a significant broadening of the upper-middle strata that have benefitted. National inquiries into income distribution have become more abundant in recent years, although they leave a good deal to be desired in regard to comparability and coverage.<sup>22/</sup> They undoubtedly understate the degree of concentration at the top, since many of them cover earned incomes only, excluding profits, rents, and interest, and since, in any case, the upper strata in typical national situations have good reasons for concealing part of their income.<sup>23/</sup> Regressive tax systems, or differential tax evasion by the groups at the top, may also distort the findings, when the incomes recorded are pre-tax. The findings are probably closer to reality for incomes in the middle range than for either the top or bottom, since the lowest income strata, dependent on various intermittent sources of livelihood

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<sup>22/</sup> The ECLA secretariat has been engaged in studies of income distribution for several years. For earlier findings and methodological explanations, see Economic Survey of Latin America, 1969; Income Distribution in Latin America (United Nations, New York, 1970); and "Comparative distribution of incomes in some cities of Latin America and in the respective countries", Economic Bulletin for Latin America, XVII, 1 and 2, 1973. The present section draws upon some more recent findings of this continuing research.

<sup>23/</sup> "... the personal monetary income obtained by the Census excludes profits retained by the corporations, various capital gains, extraordinary remunerations of the executive, etc. In addition to the imprecision of the statistical methods and owing ... to other factors such as indirect taxes, it turns out that the average income derived from the personal distribution is considerably lower than the global income per capita ... on the order of 50 per cent smaller, and that part of private income not accounted for in the personal distribution belongs principally to the groups at the very top of the distributive scale. Thus, the distribution of the global income of the country ... is much more concentrated than the distribution estimated on the basis of census data". (J. Serra, "A Reconcentração da Renda: Crítica a Algumas interpretações", Estudios CEBRAP 5, São Paulo, July/september de 1973, p. 155.)

and on income in kind, are unable to give precise information on theirs. The available data have been tabulated by deciles, which may obscure the real dividing lines between groups with different levels and rates of increase, and which cannot be related directly to the occupational categories. It can be assumed that the income of the lower categories of the "middle" (mainly salaried white-collar) occupational strata overlap to an important extent with those of the "lower" (manually-employed) workers in the secondary sector; the gains of the former have been in social status more than in income.

The proposition that income and consumption in most Latin American countries are more unevenly distributed than in most other parts of the world has been generally accepted for some time, and can be confirmed by casual observation of life styles in different zones of the cities, let alone when upper-income urban zones are compared with most rural localities.<sup>24/</sup> The striking feature is the juxtaposition of majorities at very low income levels and sizeable minorities at income levels enabling them to participate in "modern" consumption - although this participatory capacity may not correspond to their aspirations. Earlier studies have pointed out that while the percentage of personal income received by the lowest 20 per cent of the population in Latin American countries may not differ very much from that received by equivalent groups in "developed" countries such as France and the United States,

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<sup>24/</sup> A recent classification of countries by income level and inequality of distribution prepared by the Development Research Centre, World Bank, distinguishes three per capita income levels (low - up to US\$ 300; middle - US\$ 300-750; and high - over US\$ 750) and three groupings by degree of inequality (high, medium and low). Out of 16 Latin American and Caribbean countries listed, 3 are in the low income group, 11 in the middle-income group, and 2 in the high-income group. Eleven of these countries have high inequality and five have moderate inequality; none has low inequality. Among the 23 low-income countries listed for the rest of the world, 9 have high inequality, 6 moderate, 8 low. Among the 10 middle-income countries, the numbers are 3, 2 and 5 among the high-income countries 2, 1 and 8. (Hollis Chenery and others, Redistribution with Growth, Oxford University Press, 1974.)

/(the absolute



(the absolute level, of course, being much lower) in the latter cases incomes climb steadily in succeeding deciles, while in typical Latin American countries the rise is much slower up to the 8th or 9th decile. Thus the majority of the population receives a much smaller share of total personal income; its income level is far below the national average per capita. The groups immediately below the top - varying from 15 to 25 per cent in different countries - receive shares of personal income rather similar to their counterparts in the "developed" countries. Finally, the top 5 per cent of income receivers get a much larger share of the total than do their counterparts elsewhere, even though the data underestimate their real share to an unknown extent.

According to a calculation based on data from 11 countries for years ranging between 1967 and 1970, the bottom 20 per cent received only 2.5 per cent of personal income. The next 50 per cent (3rd to 7th deciles) received only 25.3 per cent. Between the 7th and 8th decile a sharp break appears. The 8th decile is the first that receives a share of income greater than its share of population (11.2 per cent). The 9th decile receives 16.8 per cent of income, the lower half of the 10th decile 14.3 per cent, and the upper half (top 5 per cent of income receivers) 29.9 per cent. The break between the 7th and 8th deciles appears in most of the individual countries, although in three (Brazil, Chile and Ecuador) the first decile to receive more than its proportional share of income is the 9th, indicating a still higher degree of concentration. It is interesting that the data show the levels of personal income of the top 5 per cent in different countries to be much closer to uniformity than the levels of income in the lowest deciles. In general, the lower the national per capita income, the higher is the percentage taken by the top 5 per cent and the wider the gap between this group and the 20 per cent at the bottom.

Comparative data for years around 1960 and 1970 suggest the emergence of two distinct patterns within the overall persistence of highly uneven income distribution:

/(a) The

(a) The top 5 per cent of income receivers has gained the most in absolute per capita terms practically everywhere. In a few countries (notably in Brazil) it has also markedly increased its share of the national income. In a larger number of countries (notably in Mexico) its share has declined to some extent.

(b) In the former countries, the groups immediately below the top (included in the 15 per cent following the top 5 per cent) have held their own in relative shares and have gained substantially in absolute terms. In the latter countries these groups have gained markedly in relative terms, at the expense of the top 5 per cent and also to some extent of the groups at the bottom of the income ladder. In the latter countries salaries seem to be more important in relation to profits as sources of income in the top two deciles than in the former countries.

(c) In the former countries, the groups closer to the median - corresponding to the lower-middle occupational strata and part of the urban manual workers in the secondary and tertiary sectors - have lost more ground in relative terms than any other groups on the income ladder, although overall rises in income levels may have been large enough to enable most of them to hold their own in absolute incomes. In the latter countries, these groups have held their own or gained in relative terms, and naturally have gained in absolute terms, although much less than the groups above them.

(d) In both patterns of distribution most of the groups below the median have lost ground in relative terms. In the former countries these losses have been less pronounced than those of the groups immediately above them. In the latter countries their losses contrast sharply with gains by the groups above. In both patterns the absolute income levels of the poorest groups have remained practically static while their share of total income has deteriorated markedly.

The data do not justify more than a general and conditional presentation of these trends. The deciles in which distribution has been tabulated cannot be related satisfactorily to the real size and

/characteristics of

characteristics of the occupational groups experiencing gains or losses in shares of the national income. However, it seems clear that in the majority of countries the gains from rising national incomes have been distributed more or less proportionately to positions previously held on the income ladder. In biblical terms, to them that had has been given. That is, the income distribution data suggest that important parts of the national populations - differing widely in size and characteristics in the two groups of countries - should be better off than before, that the greater part of the remainder should at least be no worse off in absolute levels, and that absolute impoverishment - deteriorating levels of living - should be restricted to minorities, in the majority of countries falling within the bottom 20 per cent of income receivers.

Distribution trends, however inequitable, might even be expected to give the prevailing style of development a reasonable degree of political stability, if the groups that have gained something really outnumber those that have not, and if their members perceive the situation in this light. The implications for economic viability would be more complex, depending inter alia, on the uses of the income concentrated at the top for accumulation or consumption, and on the correspondence between income incentives and the human resource needs of the style. The prevailing styles seem to contain an inherent contradiction between needs for accumulation and needs for stimulation of consumer demand. The discussion of occupational stratification suggested probable incongruities between the differential growth of certain occupational categories and economic efficiency, although the relative importance of income and social status incentives can only be guessed at.

The processes of urbanization, expansion of education, dependent modernization and monetarization of consumption affect the meaning of the income gains for income-receivers at all levels. In the upper-middle strata consumption aspirations have undoubtedly risen faster than income, in particular through the manifold repercussions of the automobile and television on ways of life. In the lower-middle

/strata, and

strata, and to some extent down to the lowest strata, aspirations for "modern" consumer goods and other expenditure needs deriving from the complications of urban life exert pressures on income that divert resources from satisfaction of the needs that are generally assumed to be basic, even the needs for an adequate diet.<sup>25/</sup> Their modest gains in monetary incomes thus do not necessarily mean higher levels of well-being, either objectively or subjectively.

The data on which this discussion of income distribution trends relies do not take us beyond 1970. In view of the generally favourable economic growth rates it is probable that in most countries the trends of the 1960s continued up to 1973, with some further acceleration and broadening of the gains at and near the top.

At the point, as a first manifestation of the world crises, rising rates of inflation struck the region. Between 1968 and 1972 only four countries, all with long experience of inflation, showed average annual rates of growth of their price indexes above 20 per cent; these four rates ranged between 21.1 and 47.5. No other country had a rate of inflation above 10 per cent, while six (including three Caribbean countries) were between 5 and 10 per cent. In 1973, the rate of consumer price increases rose in most of the countries for which data are available except Argentina, Brazil and Uruguay, which reduced somewhat a previously high rate. Ten countries experienced rates of increase above 20 per cent, including rates of 43.8 per cent in Argentina, 50.8 in Chile, and 77.5 in Uruguay. Another seven

<sup>25/</sup> Certain durable consumer goods are now subjective necessities even in the lowest income strata and many families acquire more costly goods even at the price of deprivation in other areas of consumption. Inquiries carried out in 1969 among families, mainly at very low income levels and experiencing considerable underemployment, living in slums and shantytowns in Guayaquil and Santiago, revealed that 64.4 per cent of the sample families in Guayaquil and 81.4 per cent in Santiago possessed radios, while 19.6 per cent and 10.1 per cent had television receivers. (Junta Nacional de Planificación y Coordinación Económica, El Estrato Popular Urbano: Informe de Investigación sobre Guayaquil (Quito 1973); and ECLA, El Estrato Popular Urbano: Informe de Investigación sobre Santiago (Chile) (Draft, July 1973)).

countries were above 20 per cent, while nine were between 10 and 20 per cent and 2 were between 5 and 10 per cent. In most cases, rates of inflation have been similar in 1974, and countries only mildly affected before, in particular Venezuela, have been drawn in.26/

The experiences of Argentina, Brazil, Chile and Uruguay since the 1950s show that high rates of inflation can coexist with a wide range of development experiences and policies, and with different degrees of income concentration. Social tensions were generated in all cases, but the outcomes were quite different. Inflation seems to have had an enormous negative effect in concentrating the attention of the State and the society on a continual struggle to control the phenomenon or compensate for it, diverting organizational and intellectual resources from other needs, whether or not, as has been claimed, it has also enabled the structurally heterogeneous styles of development to survive by evading final confrontation over distribution of the national income.27/

None of the other countries to which inflation has spread has as yet matched the highest rates experienced by these four countries in their more difficult years, but none of them has had time to become accustomed to living with inflation and, as also in the central countries that are now exporting inflationary pressures, the resulting tensions may be very severe. As the quotation from a former Finance Minister of Chile indicates, once inflation has gained momentum in a

26/ See table 16.

27/ "... no puedo dejar de sentirme frustrado cuando recuerdo las energías gastadas, las largas explicaciones elaboradas sobre las causas de la inflación y las medidas que es necesario tomar para extirparlas, las múltiples discusiones - enérgicas y violentas unas, conciliadoras y persuasivas otras - para convencer a los distintos grupos en pugnas de la esterilidad de las soluciones parciales y egoístas. Estas siempre se presentan en forma de ilusión monetaria, que la realidad económica muy pronto se encarga de anular. ... Debo confesar que el tema ha llegado a provocarme hastío. Las medidas técnicas parecen claras, pero las posibilidades políticas para aplicarlas se ven siempre muy distantes." (Sergio Molina, El proceso de cambio en Chile, la experiencia 1965-1970, Textos del del Instituto Latinoamericano de Planificación Económica y Social, Editorial Universitaria, S.A., Santiago de Chile, 1972, pp. 98-99.)

society most of whose components are capable of defending their share in an organized way, it is hardly curable by technical remedies, whatever its original causes. In most of the countries in which inflation is now appearing, such capacity is more unevenly distributed than in the predominantly urbanized countries with a long history of inflation. Presumably the groups at the top, or some of them will be able to hold their own or better. The salaried groups in the middle strata, and particularly the educated youth seeking to enter public employment, may find their job opportunities very much restricted and their share of national income compressed. The wage-earning groups in the lower strata have considerable, although very unevenly distributed organizational capacity to protect their share of income, but they will encounter, on the one hand, rising job competition from the unemployed, and, on the other, public policies designed to keep wage costs down. To the extent that relatively authoritarian rather than compromise regimes are already in place the enforcement of such policies is naturally more practicable.

### 3. Poverty

The large minorities at the bottom of the income ladder, who gained little or nothing during the years of relatively stable economic growth and relatively slow increases in prices, are notoriously the least able to protect themselves in inflationary situations, except possibly for rural families of small cultivators who can fall back on food production for their own subsistence. The precarious relation to the labour market of these groups gives them hardly any bargaining power, and their only defence against rising prices of necessities may be violent but ephemeral mass actions. Under inflationary conditions, assuming the survival of the prevailing styles of development, the main hope that their lot will not become even worse lies in direct assistance by the State, at a time when the State confronts unusually urgent demands of many kinds on resources that may also be shrinking, except in oil-exporting countries.

/It has

It has been obvious for some time that most income redistribution measures - expansion of public services, social security, minimum wage legislation, etc. - redistribute incomes mainly between groups in the middle and lower-middle ranges, taking practically nothing from those at the top. In international discussions, "mass poverty" or "extreme poverty" has thus come to the fore as a distinct problem requiring urgent public action apart from overall development and income distribution policies. Who are the very poor in Latin America, how does their poverty relate to the prevailing styles of development, and what can be done about it within the limits of these styles? In trying to answer these questions, the distinction between acute physiological deprivation and relative poverty, in the sense of inability to maintain a minimum standard of living according to local social norms must be kept in mind. In most Latin American settings different types of poverty intermingle within the patterns of urbanization and dependent modernization. To part of the population, poverty means inability to get enough to eat; to another part it means inability to afford an automobile.

The dimensions of acute deprivation undoubtedly remain very large but except in a few of the poorest countries this is a smaller part of the problem than in much of Asia and Africa. An estimate recently made by FAO and WHO that 13 per cent of the population of Latin America does not receive a diet meeting minimum protein-energy needs for physiological maintenance at a low level of activity (compared to 20 per cent for the developing regions as a whole) gives some idea of the extent of acute deprivation. Attempts to measure extreme poverty through indicators of the physical habitat (housing conditions, access to potable water, etc.) result in much higher percentages, but these indicators have quite different meanings for welfare in urban and rural zones, and are too lacking in comparability to be relied on.

In any case, it can be asserted plausibly that the larger, more dynamic national societies, along with the longer-urbanized societies, now have the material capacity to eliminate acute physiological deprivation, providing for all diet and shelter meeting minimum

/requirements for

requirements for health, plus a minimum of universalized educational and health services and an upgrading of productive capacities, without an unmanageable diversion of resources to the poor or radical transformation of the style of development. If they do not do so, the following factors can share the blame: first, the resistance of the upper and middle strata to any subtraction from their incomes for this purpose and their high capacity to direct the lion's share of public resources to services and employment creation meeting their own needs; second, the low capacity of the very poor to formulate practicable means of meeting their own needs and to organize for this purpose; third, the low capacity of the relevant public agencies to interpret the situations of the most deprived groups and get resources into their hands without excessive proportions going to intermediaries.

The great reservoir of extreme poverty remains in the countryside. For all the diversity of rural social and economic changes in recent years, with capitalist modernization of agriculture progressing vigorously in some zones, exploitation by commercial intermediaries taking new forms in others, co-operatively oriented agrarian reforms predominant in a few,<sup>28/</sup> one element seems to be nearly universal, except in Cuba: increasing marginalization of the weakest parts of the rural population (landless labourers, minifundio cultivators) from access to productive or income-earning activities. Some of the resulting poverty is transferred to the cities or to zones now being opened to settlement, but the poorest groups probably have less

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<sup>28/</sup> The land tenure studies carried out by the Inter-American Committee for Agricultural Development (CIDA) in the early 1960s indicated the impracticability of making the whole rural population direct beneficiaries of land redistribution, and proposed as a feasible objective the benefitting of about half the families of landless workers and cultivators with very precarious tenure over the next decade. Hardly any countries have achieved this objective. In Peru, which has undertaken one of the most vigorous agrarian reforms of the region, a target for 1978 of 320,000 families, or 27 per cent of the potential beneficiaries estimated by CIDA, was set. By the middle of 1974, according to unpublished data of the Ministry of Agriculture, 194,300 families, 60.7 per cent of the target or 16.2 per cent of the potential beneficiaries, had received land.



propensity to migrate than other parts of the rural population, because of their greater lack of education and skills. Their poverty may thus be nearly invisible to the rest of the society, receiving no services and exerting no pressures.

In the towns, and particularly in the metropolitan centres, in spite of the greater visibility of poverty, the extremes of deprivation usually affect smaller proportions of the population and are more concentrated in groups with special disadvantages, such as families without a male breadwinner, while compensatory public services, doles of food, etc., do reach fairly high proportions of the very poor.<sup>29/</sup>

In terms of professed values as well as the disastrous implications for the future of child malnutrition and ill health, the elimination of acute physiological deprivation deserves a very high priority; and for most countries the objective is attainable, given such a priority. Success, however, would leave intact the wider problem of poverty as a relative phenomenon within the context of widening income gaps between the different strata, changing consumption

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<sup>29/</sup> Calculations for the metropolitan areas of five Latin American countries for various years during the 1960s show that the poorest 20 per cent of their populations received 5 per cent of personal income against 3.1 per cent for the equivalent group in the country as a whole. Per capita income levels for the bottom 20 per cent in the metropolitan areas ranged between US\$ 130 and 300, against incomes between US\$ 50 and 110 for the same group in the whole country. In some countries the median income for the poorest group in the metropolitan areas was equal to the median income for the country as a whole. ("Comparative distribution of incomes in some cities of Latin America and in the respective countries", *op. cit.*) In Costa Rica, where the gap between rural and urban incomes is less pronounced than in most other countries, 1971 estimates of the Caja Costarricense de Seguridad Social show that 10 per cent of the urban population and 39 per cent of the rural population had incomes below 100 colones; one per cent of the urban population and 8 per cent of the rural population had incomes below 50 colones.

standards, and changing opportunities for livelihood.<sup>30/</sup> In the urban population, and in the parts of the rural population that have escaped extreme poverty, even if the statistics indicate income gains, these gains are accompanied by pervasive insecurity, continual struggles of different groups to keep incomes in line with rising prices, maladjustments between employment qualifications and the labour market and between farm output and the produce market, difficulties of shelter and transport in continually expanding cities. Accelerating inflation obviously intensifies the anxieties of relative poverty even for groups that are able to hold their own.

Almost by definition, the combatting of relative poverty would require measures affecting the upper and middle strata more drastically than would the financing of programmes for relief of extreme deprivation. Such an objective implies far-reaching changes in patterns of production and consumption and in the whole web of urban and rural social relationships and motivations - in other words, the achievement of a different style of development.

Diagnoses of the characteristics and causes of poverty in Latin America have commonly focussed on conceptions of "marginality" and have tried to weigh the relative importance of exclusion from productive activity (open and concealed unemployment) and of low productive capacity in the fully employed poor. The reality of the phenomena

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<sup>30/</sup> "Otro hecho sorprendente que apareció en las múltiples conversaciones que mantuvimos con dirigentes de los trabajadores del sector público a raíz de peticiones de aumento de remuneraciones, fue la contradicción de reconocer que las remuneraciones reales habían aumentado, sin perjuicio de sostener al mismo tiempo que la situación de sus hogares fue peor y hasta angustiada. ... La explicación de esta paradoja es que, en gran parte, el aumento de los ingresos monetarios reales, el cambio de una vivienda insalubre (callampa) a otra modesta pero nueva y habitable y la influencia de los medios de comunicación les crea nuevos hábitos de consumo. ... Estas nuevas demandas llegan a comprometer una alta proporción del ingreso mensual disponible, lo que hace que el remanente sea insuficiente para cubrir las necesidades más esenciales, creándose una sensación de angustia económica mayor que la que sentían antes de aumentar sus ingresos." (Sergio Molina, op. cit., p. 133.)

labelled "marginality" was deduced from two different kinds of observations: (i) the emergence and differentially rapid growth during the 1950s and early 1960s of irregular settlements, not conforming to "modern" norms of urban housing and infrastructure, on the periphery of practically all the larger cities and many smaller towns; (ii) the statistical evidence that industry and basic services were not absorbing more than a small fraction of the increase in the labour force, that rural-agricultural occupations were absorbing a declining proportion, and that the urban tertiary sector was growing rapidly. It was plausibly deduced that large increases in various forms of low-productivity employment and open and concealed unemployment were being ecologically concentrated in the peripheral settlements.

Field investigations aimed at the urban marginal population have been fairly numerous, considering the overall paucity of data on stratification, but the real traits, dimensions and spatial location of the "marginal mass" or "sub-proletariat" remain elusive. The population of the ecologically "marginal" settlements, as well as the older slums, turns out to be quite heterogeneous, determined more by the incapacity of the cities to offer "normal" housing within the reach of the lower-income strata than by generalized "marginalization" from urban norms of employment and consumption.<sup>31/</sup> No practicable

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<sup>31/</sup> The inquiries referred to above in Guayaquil and Santiago, carried out in zones selected for the presumably "marginal" status of their populations, distinguished four broad occupational groupings: (i) industry, (ii) construction and transport, (iii) "low" services and commerce, and (iv) "infra" services, the last constituting the most incontrovertibly marginal group. In Guayaquil, 39 per cent of the male active population and 53 per cent of the female fell into the "infra" category, in Santiago 23 and 41 per cent. An investigation in the Lima barriadas (now pueblos jóvenes) found that between 1956 and 1967 average real income of barriada households increased by 33.5 per cent, although real income in the lowest decile remained constant. The rise in incomes resulted from a combination of rising general wage levels in Lima, increase in the average number of persons employed per household, and a shift of employed persons into higher paying occupations (salaried employees were 8 per cent of total employed in 1956, 22 per cent in 1967). Thus, changes in occupational stratification and differential income gains in the barriadas paralleled those characteristic of the countries as a whole. (Robert Lewis, Employment, Income and the Growth of the Barriadas in Lima, Peru (Ph. D. dissertation, Cornell University, 1973).)

way has been found of determining the universe of "marginal" families according to a strict definition and surveying a sample from it.

#### 4. Employment

The inadequate absorptive capacity of the labour market in the "modern" sectors of production, under conditions of rapid growth in the urban labour force and labour-saving technological changes in agriculture, obviously has a great deal to do with the dimensions of poverty, but the central features of the "employment problem" in Latin America are only slowly becoming clearer.<sup>32/</sup> As was indicated above, comparative occupational statistics for 1960 and 1970 do not support the hypothesis of a disproportionate relative increase in the forms of self-employment and tertiary-sector wage labour most likely to mean disguised unemployment and extreme poverty, although they do suggest a considerable differential increase in middle-stratum employment of dubious productivity. Attempts to assess the under-utilization of manpower statistically, on the assumption that healthy development would mean productive occupations affording adequate incomes for the whole of the adult population wanting to work, have commonly lumped together quite different phenomena, which really imply needs for quite different priorities in employment policy - open unemployment, underemployment, employment at "primitive" technological levels, and employment in occupations judged superfluous or unproductive - to reach very high estimates of "unemployment equivalent" in the active population. The more recent studies indicate that, at least in the countries they cover, the dimensions of unemployment and underemployment in terms of abnormally short working periods are much smaller than the dimensions of full-time

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<sup>32/</sup> The main sources of recent new information are the studies made by the Programa Regional de Empleo para América Latina (PREALC) - ILO teams; but these cover a group of relatively small and unrepresentative countries (Dominican Republic, Nicaragua, Panama, Paraguay, Ecuador). (PREALC, La subutilización de la mano de obra urbana en países subdesarrollados, August 1974.)

employment at very low or excessively fluctuating remunerations (the latter in own account jobs, industrial piece work, construction, etc.).

High rates of open unemployment have been recently recorded in some cities (12 per cent in Asunción and in urban areas of Colombia, 20 per cent in Santo Domingo, over 18 per cent in urban areas of Nicaragua and over 10 per cent in Montevideo, San Salvador and Santiago de Chile, but it is significant that between 75 and 90 per cent of the unemployment in the cities named is composed of women and young people. For males 25-54 years of age the rate was generally below 6 per cent.<sup>33/</sup> This suggests, although the hypothesis must be advanced with caution in the absence of data from a wider range of countries, that the conventional image of the unemployed person as a male breadwinner whose situation has tragic implications for his family needs revision. Those seeking but unable to find employment seem to be mostly other members of the family who enter the labour market to supplement the family income where the head of the household is very poorly paid or irregularly employed, and also female heads of families, who are in the most disadvantageous situation of all.<sup>34/</sup>

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<sup>33/</sup> PREALC, La política de empleo en América Latina (Santiago, abril 1974).

<sup>34/</sup> These findings confirm earlier data from other countries showing young people in the majority among the open unemployed. See Henry Hirsch, "Employment and Utilization of Human Resources in Latin America", Economic Bulletin for Latin America, XVIII, 1 and 2, 1973. A 1971 study of "marginal" districts in Caracas gives a very different picture; about 25 per cent of the heads of households in these districts were unemployed and had job histories of frequent and prolonged unemployment. (CORDIPLAN, El estatus ocupacional de los jefes de hogares de bajos ingresos en Caracas, February 1973.) Such a finding is not comparable with city-wide statistics, but high open unemployment seems to have long been chronic in Caracas, possibly because the high overall income level gives the unemployed a better chance than elsewhere of subsisting through aid from relatives or friends, or public doles. (Cont.)

The structural heterogeneity mentioned at the beginning of this chapter dominates this facet of the employment problem and its consequences for income distribution. In practically all the branches of gainful activity enterprises able to combine satisfactory wages and profits coexist with enterprises able to survive only by paying their workers very little. The conclusion that substantial redistribution of income to the lower strata cannot be achieved without raising of the productivity of the ways of livelihood now at primitive technological levels and shifting of part of the labour force to higher-productivity occupations is valid up to a point, but needs several important qualifications and lends itself over-easily to justification of the existing distribution.

The measurement of relative productivity are not exclusively technical or neutral, that is, based on the productive processes themselves, but rely on the incomes afforded. Price policies and bargaining power influence the calculations. Thus, the low productivity of the agricultural sector, while real enough, is exaggerated by anti-inflationary measures keeping food prices down, by the high proportion of agricultural proceeds captured by intermediaries, and by the considerable losses of agricultural products through decay or pests between producer and consumer, for which the techniques used by the cultivator cannot be blamed. The high productivity of "modern"

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34/ (Cont.) In the Caribbean sub-region high unemployment has also been chronic, and reached phenomenally high levels during the early 1970s owing to economic stagnation and restrictions on emigration: In Jamaica, long-term unemployment of 23.4 per cent of the labour force has been recorded; in Barbados 19.5 per cent; in Trinidad and Tobago 15.6 per cent, with similar rates in the smaller English-speaking island territories. While most analyses have concluded that the overall employment situation in Latin America is worsening, one observer has argued plausibly on the basis of the same fragmentary data that "the increase in open unemployment has been accompanied by an even faster decrease in disguised unemployment or underemployment so that the net effect has been a reduction in the abundance of labour in most Latin American countries" and that "policy preoccupations should be reoriented from merely creating employment to creating more productive employment". (Joseph Ramos, An Heterodoxical Interpretation of the Employment Problem in Latin America (PREALC, Santiago, August 1973).)

industry is exaggerated by the impact on prices of tariffs and other industrial incentive measures; if an inefficient industry produces goods at several times the cost of its counterparts in the industrialized countries, the statistical productivity of its labour force in relation to the rest of the national economy is all the higher. The productivity of urban artisanal and service activities can hardly be assessed objectively. Their remuneration is kept low by the weak bargaining power of the persons engaged in them, but if labour were to become less abundant and their costs were to rise very much they would be priced out of the middle-income market that now enjoys them (as has happened to a large extent in the industrialized countries). At all levels, incomes depend as much on ability to monopolize entry to certain occupations, to bargain collectively, and to make use of the regulatory powers of the State as on contributions to production.

Upgrading of productivity and shifts to higher-productivity occupations would have obvious limits as remedies for the deficiencies of employment and income, even assuming a successful reconciliation of productive efficiency with labour-intensive techniques and a strengthening of bargaining power commensurate with increases in productivity. Production, income distribution and demand would have to shift simultaneously in a balanced way so as to provide higher relative incentives for production of foods and basic consumer goods. The very few recent attempts to combine these objectives have had discouraging results in terms of accelerated inflation and inability to maintain the changed income distribution. Under present conditions of general inflation propagated from the world centres such policies would be even harder to keep in balance, except for national societies willing and able to impose severe controls on their intercourse with the rest of the world. Consumer demand is now so conditioned by the demonstration effect and the mass media that raising of the lower incomes does not automatically bring about more adequate satisfaction

of basic needs.<sup>35/</sup> Moreover, to the extent that the low productivity of the labour force is conditioned by malnutrition, ill-health, lack of education and inappropriate motivations, the raising of its productivity depends on long-term improvements in these factors, affecting the quality of the entrants into the labour force more than the older employed population.

The available statistics on employment and unemployment, like the rest of the quantitative information used in this chapter, relate mainly to the period of general economic expansion from the late 1960s through the early 1970s. As in earlier years, this economic growth did not substantially accelerate the expansion of high-productivity employment, even if the hypothesis that the over-abundance of labour diminished to some extent is correct. Employment in modern large-scale industries increased only slightly in most cases, less than employment in small-scale and artisanal enterprises, reflecting a continuation of the well-known long-term trend. To the extent that the present crises slow down economic growth, chronically unsatisfactory employment patterns can very rapidly become critical and the previous safety-valves of public job creation, etc., lose

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<sup>35/</sup> "... no puede desprenderse de las consideraciones precedentes, que con la sola distribución del ingreso se va a alcanzar una modificación en la demanda y en la estructura productiva del país. Tanto tiempo y recursos empleados en orientar no sólo el consumo sino un conjunto de valores de la población, podrían conducir a que los ingresos incrementados de los grupos sociales en beneficio de quienes opera la redistribución, podría traducirse en un incremento considerable en el consumo de bienes suntuarios en desmedro del consumo de bienes y servicios básicos..."

"... una política destinada a redistribuir el ingreso, no complementada con otras que puedan referirse, por ejemplo, a establecer un severo grado de control estatal de los canales de comercialización, hasta la intervención directa y/o control también de los medios de publicidad, puede degenerar en una tendencia consumista imitativa de los grupos de altos ingresos, con lo cual la demanda incrementada podría no traducirse en mayores empleos y, más bien, acentuar la dependencia externa." (José Moncada Sánchez, El desarrollo económico y la distribución del ingreso en el caso ecuatoriano (Quito, November 1973).)



their capacity to relieve the strain. Under such conditions, the obtaining of really up-to-date information, sensitive to short-term changes, becomes particularly important.

#### 5. Youth and women

Among the most crucial but perplexing questions for a survey of social and occupational stratification trends are: (i) the implications of the predominant youthfulness of the populations and the high proportions of new entrants to the labour force at all occupational levels, with the partial exceptions of countries in the first demographic grouping; (ii) the changing roles of women, who throughout Latin America up to the present have shown rather low rates of participation in the labour force compared to women in the industrialized countries. Evidence was presented above that rates of unemployment have in the recent past been much higher among women and youth than in the rest of the labour force, and it is reasonable to assume that they will be particularly vulnerable to any contraction in the labour market.

The importance of both groups really calls for a broader treatment than can be attempted within the limits of this chapter of their place within structurally heterogeneous, highly stratified, consumption-oriented, culturally dependent societies now experiencing painful disruptions of the expectations of most social groups. To what extent can the prevailing styles of development incorporate the flood of young people and the increasing proportion of women seeking to participate, occupationally or otherwise? To what extent are the youth and the women evolving distinct socio-cultural patterns that affect their readiness to incorporate themselves on the terms that the styles of development can offer? International discussions of both groups have been prone to over-generalizations and over-idealizations, attributing to "the youth" or "the women" an implausible degree of uniformity and purposiveness. In practice, the reactions of youth and of women seem to be no more uniform than those of other population groups, being strongly influenced by class position, education, urban

/or rural

or rural residence, and many other factors. While the prevailing styles of development have not demonstrably been able to win their active allegiance, neither the predominant youthfulness of the populations nor the struggles of women to broaden their participation have as yet seriously threatened the viability of the styles.

The contradictory situation of the urban youth in the higher and middle levels of the educational systems is fairly well documented. (In these groups, of course, the female sex is generally well-represented and its members are exposed to the same ideological currents and the same status and occupational anxieties as the males.) The most radical challenges to the styles of development have come from minorities within their ranks, and from time to time these challenges mobilize much wider groups. The educated youth are also particularly exposed to the continually shifting impact of dependent modernization on cultural traits and values. At the same time, whatever their ideologies, they cannot avoid using the educational systems to improve their relative positions within the existing social order and then striving to find room in the existing middle- and upper-status occupations.

The situations and reactions of the much more numerous youth of the urban and rural lower strata have been less studied, and the question has been posed whether they constitute a generational group with identifiable problems and attitudes, because their transition from childhood to full adult responsibilities is so brief and early.<sup>36/</sup>

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<sup>36/</sup> See Aldo E. Solari, Algunas reflexiones sobre la juventud latinoamericana (Cuadernos del ILPES, Serie II, 14, Santiago, 1971) and A. Gurrieri, E. Torres-Rivas, J. González, Elio de la Vega, Estudios sobre la juventud marginal latinoamericana (Editorial Siglo XXI, México 1971). A field investigation undertaken by ECLA in collaboration with FAO in 1973 among rural youth in Panama (plantation wage labourers as well as youth in families of small cultivators and agrarian reform beneficiaries) indicated that while generational self-identification as "youth" was present, it was less pronounced than self-identification as workers, land-holding cultivators, males and females. (Proyecto CEPAL-FAO, "Participación de la juventud en el proceso de desarrollo latinoamericano: Un estudio de Caso en Panamá", Borrador, Santiago, July 1974.) According to the inquiries in Santiago and Guayaquil referred to above, 50.2 per cent of the male active population in the Guayaquil sample and 31.3 per cent of the female had entered the labour force before reaching 15 years of age. In Santiago the percentages were 64.1 and 42.2

It must be kept in mind, however, that very high proportions of the young people from rural-agricultural families are shifting to urban settings and occupations, and that many who stay in the countryside are prevented from following the traditional early transition to adult labour and family formation by the combined rural processes of modernization and marginalization. Along with urban youth from the lower strata the youthful migrants face prolonged difficulties in obtaining steady employment. The inquiries that have documented high unemployment among young people also demonstrate that this is not simply a question of inability of teen-agers to find jobs for some time after entering the labour market, since a majority of the youthful unemployed are in their twenties; nor of exclusion of the most disadvantaged strata from the labour market, since the youthful unemployed are not predominantly uneducated; unemployment rates seem to be highest among youth with four or more years of primary schooling and among those with some secondary schooling; the duration of unemployment is also greater among this latter group.<sup>37/</sup>

It would seem that the incorporation of youth into the labour force was becoming more difficult even before the onset of the present crises, partly because of the insufficient overall increase in demand for labour, partly because the present educational systems, from the primary level upward, inculcate higher occupational aspirations without imparting specific qualifications or general aptitudes suited to the labour market. A wide gap persists between the labour market for youth from the middle strata, with at least a complete secondary education, and the labour market for youth from the lower strata, and there is very little mobility from one market to the other, but in both markets supply now exceeds demand. The first category of youth may well continue to present the more unmanageable challenges to the prevailing styles of development, but the generational problem is

<sup>37/</sup> See Henry Kirsch, op.cit., Presumably, as the Guayaquil and Santiago findings also suggest, unemployment is lower among the least educated because they are also least selective in the jobs they will accept and least able to depend on family maintenance while seeking more acceptable means of livelihood.

/likely to

likely to emerge with increasing clarity in the second group also to the extent that the members of the latter face longer periods of inability to gain a minimum livelihood.

During the 1960s, the percentages of women aged 15-64 participating in the economically active population rose significantly from previously low levels, in countries for which comparative census data are available, while in several countries the equivalent male percentages declined somewhat. The increases in female participation are influenced by the overall shift in occupational stratification toward the upper and middle categories but also by the continuing marginal position of women in the labour force. That is, the gains in female employment are mainly in the categories of dependent professionals and salaried employees in the urban secondary and tertiary sectors. Female participation in industrial labour declined, and in Chile there was also a marked drop (-9.4 per cent) in lower-stratum tertiary employment. Around 8 or 9 per cent of the economically active women remained in the residual unclassified group that presumably represents particularly marginal activities. At the same time, the increase in female participation seems to have been concentrated in the age group 20-24; female participation declines at higher ages while male participation continues to rise. Thus, the rapidly rising number of girls receiving secondary and higher education has led to a corresponding rise in the number entering clerical and professional or semi-professional employment, generally prior to marriage and temporary or permanent withdrawal from the labour force. In the sluggishly expanding industrial labour market women have lost ground relative to men, and an important proportion of the women of the lower income urban strata who must seek work because of inadequate earnings of the husband or because the family lacks a male breadwinner continue to be restricted to domestic services and the occupations classified as "infra" in the Guayaquil and Santiago studies.<sup>38/</sup>

<sup>38/</sup> In most Latin American countries the participation of women 15-64 in the active population is below 20 per cent, rising to about 25 per cent in the countries of the Southern Cone, where the similarity to European demographic patterns (in particular, low fertility and small family size) would lead one to expect higher rates. The equivalent percentage is about 43 per cent in Western Europe and nearly 60 in Eastern Europe. See Chapter V, "La actividad económica de la mujer y la fecundidad", in Comisión Económica para América Latina, Población y Desarrollo (Fondo de Cultura Económica, México, 1974).

## E. LEVELS OF LIVING AND SECTORAL SOCIAL ACTION

Two apparently contradictory but complexly interrelated consequences for levels of living and the public services bearing on levels of living emerge from the demographic and societal trends described above. Like the trends themselves, these consequences can be presented here only schematically, rather than explored in their full complexity and ambiguity. It goes without saying that quite different interactions between societal trends, levels of living and social services are also identifiable within specific national and local situations, and that the shortcomings of the information justify no more than provisional acceptance of any generalization.

First, while consumption has diversified in most settings and in most social strata, there is no general evidence of significant improvement for the lower-income majority in the two most basic components of the level of living - food and shelter. In both of these areas of consumption, the role of public services and subsidies, while increasingly important, remains subordinate to the interplay between family incomes, family decisions on distribution of expenditures, the influence on these decisions of the mass communication media, and the capacity of the economies to supply the relevant goods at prices matching purchasing power. With regard to both food and housing, low effective demand determined by inadequate incomes, inefficient production and distribution systems, certain well-known consequences of rapid urbanization, certain well-known consequences of the dependent modernization of consumption patterns, and vacillating or self-defeating public policies add up to the continuation, or possibly deterioration, of a chronically unsatisfactory situation.

Second, the range and coverage of publicly-financed social services have greatly increased. The distribution of these services has continued to be very uneven, corresponding roughly to the differences between types of national situation, between internal regions, between urban and rural settings, and between occupational and

/income groups

income groups, but the expansion has affected practically every country, region and group to a significant extent. The lines of expansion have depended more on the relative strength of pressures from within the societies and on the availability of earmarked external aid than on any coherent conception of the place of social services in a strategy for development. The efficiency of most services has been low in relation to their claims on public resources. In spite of these qualifications, the social services are undoubtedly making real contributions to human welfare, are changing the quality of the human element for the better, and are generating new opportunities as well as constraints for development policy. For the middle strata, the services now constitute a very important part of their preferred job market, their values dominate the content, and they are able to capture a disproportionate share of the benefits. Nevertheless, however ambivalently, their roles in the services as teachers, social workers, public health personnel, etc., bring them into confrontation with the negative byproducts of the prevailing styles of development and involve them in the quest for different solutions in ways that would not be present if their livelihood derived more exclusively from private activities. At the same time, the contours of poverty change when the most disadvantaged strata begin to have some access to schools and health services, some consciousness that the State has assumed responsibilities for their protection, although prevailing social relationships tend to distort this consciousness into dependence and unrealistic appreciations of the capacity and intentions of the State.

In the expansion of the social services education has had the leading role, both in proportion of resources absorbed and in the importance and complexity of its impact on the societies. The expansion of health services has also been important in practically all countries, as the general declines in infant mortality and rises in life expectancies, in the absence of improvements in food consumption and housing sufficient to influence these rates indicate. Social security has broadened its coverage although in most of the countries the rural population and the more marginal urban strata remain outside

/de facto

de facto, whether or not the law calls for their incorporation, and the discrimination in benefits between occupational strata remains wide.<sup>39/</sup> In these and other specialized areas of public social action, recent trends do not diverge greatly from what has been described in previous reports. The last part of this chapter will therefore examine certain problems of food supply, housing and educational expansion.

Food supply and nutrition. FAO data show that availability of calories per capita, availability of proteins, and availability of animal proteins, remain below international norms in a good many countries, although the region as a whole has a modest net surplus of food over minimum requirements, that gains in the early 1970s over the 1960s are small, and that improvements up to 1980 that can be projected from past trends or national production objectives will not entirely erase the deficits in these countries.<sup>40/</sup> The deficits however, do not have the alarming dimensions of the deficits now present in Africa and Asia; moderate sustained increases in production, well within the apparent capacity of the countries in view of their resources of land and rural labour, would erase them, or elimination of the huge avoidable waste of food between producer and consumer would bring supplies up to satisfactory levels. In fact, Latin America as a whole could make an important contribution to meeting the food deficit of the rest of the world. Within Latin America as in the world as a whole, the most urbanized countries with high income levels and low rates of population growth also have the most adequate food

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<sup>39/</sup> Recent comparative investigations of social security in Argentina, Chile, Mexico, Peru, Uruguay and Venezuela bring out clearly their failure to redistribute income, except between lower-middle groups. The expansion of coverage to very low income groups is usually at the expense of the wage-earning groups immediately above them rather than at the expense of the most privileged beneficiaries, usually public employees and the military. (Carmelo Mesa-Lago, La estratificación de la seguridad social y el efecto de desigualdad en América Latina (book in preparation).)

<sup>40/</sup> See Chapter III E. below.

supplies. In these countries, faltering agricultural-pastoral production means a declining export surplus rather than a deficient national diet. The large countries in the second group previously identified, along with Chile and Cuba, are at middle levels in per capita food supply, while most of the smaller, more rural countries (with the conspicuous exception of Paraguay) are well below the regional average. When the national average is inadequate or barely adequate in settings of extreme inequality in income distribution it can be assumed that the diet of the lower-income groups and depressed internal regions is far below an acceptable minimum, while the more prosperous groups consume a good deal more than they need.<sup>41/</sup>

Urbanization changes the nature of the food supply problem and the policy implications, without necessarily affecting the statistical adequacy of food supplies for better or worse. Until recently, most of the population with seriously inadequate diets lived in the rural areas, where the deficiencies were chronic and did not generate pressures for remedial action; the rural poor had to adjust their rates of physical activity to the limits set by their diet. This is still true in most of the Central American countries and in some of the smaller countries elsewhere. To the extent that the low-income population congregates in the cities, and monetarization of incomes and urban consumption patterns penetrate the rural areas, however, demands change and the family gains some degree of choice in expenditures. The basic diet probably remains monotonous, confined to a few staples, and there may be a nutritional loss as regards home-produced vegetables, wild plants and animals, etc., while family expenditures are diverted in part to bottled beverages and packaged foods whose nutritional content does not match their price. At the same time, urban low-income families can exert fairly effective pressure on the State to try to keep the prices of staple foods low, and a good many of them gain access to free or subsidized foods

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<sup>41/</sup> See again Chapter III B.



distributed under various international aid programmes. Meanwhile, the State is assuming continually wider responsibilities for maintenance of standards, prevention of adulteration and contamination, requirement of the incorporation of nutritional additives in flour and other staples, etc. In countries where increases in the domestic food supply are sluggish, agrarian unrest pronounced, commercial intermediaries strongly entrenched and inefficient, and urban incomes low, the State is at loss to reconcile production incentives, human welfare, and political stability within a coherent policy. The strains become all the more severe insofar as the State seriously attacks income redistribution, in view of the relatively high income elasticity of demand for food among the poor and the low responsiveness of the production and distribution systems. Within the past few years various countries have thus found their food imports growing unmanageably at a time when the world sources of cheap food exports and food aid are drying up and the prices of most agricultural products are rising. High agricultural export prices threaten national diets from another direction; domestic producers shift to the export market.

The food supply policies that are coming to the fore in a piecemeal way include: (i) curtailment of consumption of the foods most costly to produce (mainly beef) through prohibition of their sale during certain periods (this measure is resorted to both by countries trying to increase the supplies available for export and by countries trying to restrict the costs of imports); (ii) incentives and exhortations to produce and consume other foods of high nutritive value that can be more cheaply produced domestically (fish, chickens, pork, etc.); (iii) price controls on and subsidized imports of staple foods; (iv) purchases and distribution of such foods through State agencies, co-operatives and various consumer-protection organizations, so as to cut middle-man costs and insure adequate supplies at official prices to urban low-income groups; (v) use of special channels of distribution (schools, clinics, community organizations, mothers'

/clubs, etc.)

clubs, etc.) for milk and other protective foods to insure that they reach young children. During the 1970s these and related measures are sure to increase in scope in spite of the formidable problems of organization and equitable functioning they have encountered.

The deficient nutrition of children under five years of age has emerged as the most alarming and intractable facet of the problem, in view of the longterm implications for quality of the population and the particular difficulties of getting the right foods in adequate quantities where they are most needed. Serious undernourishment among young children results in a permanent stunting of physical growth and in reduced adult working capacity; in countries such as Japan improvement of the national diet has led to very marked increases of the average height as well as weight of the next generation, and similar consequences would undoubtedly follow in most of Latin America.

In the past few years, however, diagnoses of irreversible brain damage caused by insufficient protein in the diet of very young children previously unsuspected, have directed attention to this as possibly the main threat. The dimensions of this evil and the nutritional threshold at which permanent damage can be expected are not entirely clear, since research has been limited to small groups of children in a few settings. A recent statement prepared jointly by FAO and WHO sets the problem in perspective and warns against over-simplification.<sup>42/</sup> First, "malnutrition in children is usually due not to a deficiency of protein or energy but rather to a combination of low energy intake coupled with inadequate protein utilization". That is, a typical low-income diet limited to a few staples might meet the child's minimum needs if he ate enough of it; if he does not get enough to eat, giving him high-protein food supplements may not meet the problem, since the body will use much of the protein for energy rather than body- and brain-building. Protein requirements cannot be assessed in isolation from energy requirements. Second, "children living in poverty will tend to be backward in mental development compared to children living in better environments, but how much of this is due to poor nutrition is uncertain. Assuming that inadequate nutrition is a direct cause of

<sup>42/</sup> See FAO, The state of Food and Agriculture, 1974

impaired mental development even less is known about the relative impact on potential rather than actual performance. Most of the evidence available does not enable the effect of nutrition to be isolated from the general environmental background... there is some evidence from animal experiments that very inadequate nutrition can lead to impaired brain development and that such impairment may to some extent be irreversible. It may be said that the evidence from studies of children, although leaving the case unproven, indicates that such impairment may occur also in children. It may be questioned whether, even if this is shown to be true, nutrition and mental development can usefully be discussed in isolation from the whole complex of the environment of the children at risk. Certainly any attempt to ensure normal mental development will necessitate the treatment of the total environment of the child, including nutrition."

This authoritative statement deserves citation at some length because of the disturbing implications for the very feasibility of a more equitable style of development that are raised by some presentations of the problem. What can education accomplish if an important part of the population is irreversibly handicapped mentally as well by poverty and discrimination?<sup>43/</sup> Does this mental handicap explain the static poverty at the bottom of the income distribution ladder? Does the handicap exclude, for a large part of the present generation of adults and the next, the democratic participation in policy-making that has been endorsed as a central objective? Research findings on child malnutrition, in the sweeping terms in which they

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<sup>43/</sup> "Numerosos estudios ... han evidenciado claramente que la cantidad de alumnos básicos que no están capacitados para seguir normalmente sus estudios es sorprendentemente mayor que la imaginada, subiendo a porcentajes del 40 o 45 por ciento del total del alumnado básico ... Dadas las características cercanas a la irrecuperabilidad para estudios medios por parte de los componentes de la Educación Básica Especial, ella debe considerar grandes dosis de capacitación laboral en el contenido de sus programas." (Directiva del Gobierno para la Educación, Santiago de Chile, 19 December 1973.)

/are sometimes

are sometimes interpreted, can support elitist views of the social order as well as arouse the public conscience to a real threat to human well-being and the national future. The FAO/WHO statement offers hope that the greater part of the handicap is not irreversible, if the child's "total environment" changes for the better. Lastly, how can the societal mechanisms for allocation of resources give adequate priority to a need that is of enormously greater importance than most of the other demands on public resources, but that cannot exert pressures of comparable force for satisfaction? Improving the adequacy of food supplies to the lowest-income families is essential but insufficient, since protein-energy malnutrition of very young children derives partly from culturally determined patterns of distribution of food within the family. The prescription for "treatment of the total environment of the child" is unavoidable, but hard to realize within settings of extreme poverty, as child welfare specialists have long known.

Housing. Diagnoses of the "housing problem" in Latin America and policies designed to solve it have taken on a peculiarly cyclical character, in which individual countries in different time periods appear at the stages of urgent preoccupation and divulgation of huge global estimates of the "housing deficit", of adoption of large-scale housing construction programmes with quantitative targets, of experimentation with cheaper solutions relying on aided self-help, and of apathy, with public attention turning to problems that seem even more urgent. In this policy area it is particularly difficult to make regional generalizations adding anything to what has been said in numerous reports over the past two decades, or to identify significant changes in the configuration of the problem, other than the obvious growth in dimensions of the urban part and the continued proliferation of public agencies dealing with housing.<sup>44/</sup>

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<sup>44/</sup> The diagnosis made in Chapter XIII of Social Change and Social Development Policy in Latin America (United Nations Publication, Sales No: E.70.II.G.3) seems to remain valid. The annual reports of the Inter-American Development Bank on Economic and Social Progress in Latin America document the vicissitudes of national housing programmes and agencies from year to year.

For most of Latin America there is no reason to believe that the chronically low standards of housing associated with rural poverty have improved or deteriorated very much, although here and there public rural housing programmes, usually in conjunction with land tenure reforms, have attained some importance. In the smaller towns and cities the main change has been the marked improvement in the infrastructure associated with housing: electrification, water supply, and sewerage.

In the larger and more rapidly growing urban centres conventional mechanisms for the organization of house-building have continued to respond to the needs of the urban upper-income strata alone, and governments, stimulated by the availability of substantial external funds earmarked for housing, have continued to launch varied programmes for low-cost construction, frequently with high hopes of absorbing unemployment and accelerating economic growth while relieving the housing shortage. They have continued to find it difficult to attain the planned rhythm of construction of housing units for more than a year or two at a time, or to recover a substantial part of the costs from families receiving new dwellings. The effective demand for housing, at the prevailing unit costs dictated by inefficient and high-profit construction industries, had narrower limits than was expected, even with public subsidies and generous terms of payment. The middle strata that received most of the new housing were struggling with many competing demands on their budgets and commonly managed to evade part of the amortization costs through inflation or otherwise.<sup>45/</sup> The housing agencies of the countries with chronically high inflation continually

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<sup>45/</sup> The typical public housing programmes have required from applicants a minimum income permitting regular amortization payments. The poorer applicants were thus motivated to falsify their incomes to acquire eligibility, and later were unable to keep up payments, even with excessive sacrifices in other areas of consumption. See, for example, Fanny Tabak, "Vivienda y política de desarrollo urbano en el Brasil", Revista Interamericana de Planificación, 7, 27 September 1973.

faced a choice between losing the funds intended for additional construction or adding to inflationary pressures and political unrest through frequent upward readjustments of payments; with the universalization of inflation this dilemma is presumably now present in almost all housing programmes.

Since in most years the urban population continued to increase more rapidly than the stock of "normal" housing, the size of the deficit should have increased considerably during the 1960s and early 1970s. Nevertheless, the tensions expected from urban overcrowding did not intensify markedly. A good deal of the pressure was relieved by unconventional housing "solutions" on the periphery of the cities that initially were viewed as the most alarming part of the "problem".

As research gradually demonstrated that, for the most part, the peripheral settlements represented resourceful efforts by low-income families already established in the cities to meet their own needs for shelter and security, rather than camps of unemployable rural migrants of foci of delinquency and discontent, and as experience demonstrated that conventional public low-cost housing programme could do very little for the groups that most needed shelter, governmental attention periodically turned to the presumably cheaper techniques involving overt or tacit recognition of the legitimacy of the peripheral settlements. These techniques have been often described and the programmes using them continue to respond to real needs with a reasonable degree of effectiveness.

Within the prevailing styles of development, however, such measures constitute unavoidable expedients rather than satisfactory solutions to the housing needs of the low-income strata of the large cities. They are compatible with continuing evasion of the need for comprehensive planning of urban growth and controls over land uses and costs. The most desperate need of the low-income families is for employment affording adequate incomes, and the physical segregation of the peripheral settlements, usually located far from the urban centre according to the criterion of cheapness of land, makes it even harder

/for them

for them to find jobs and requires long and tiring daily journeys to and from the jobs they do find. The policies of aid to the peripheral settlements are also quite compatible with continuing allocation of the lion's share of public housing subsidies and incentives to the middle-income market.

Education. The fact that formal education has been expanding more rapidly and generally than any other form of public social action since the early 1960s, the unbalanced character of this expansion, and the high proportions of national expenditures now devoted to education have been documented in several previous ECLA studies.<sup>46/</sup> These trends are continuing, and some of the apparent consequences have been mentioned in earlier sections of this chapter. The availability of comparative census data for several countries is beginning, rather belatedly, to make it possible to use different indicators to throw light on the configurations of educational expansion.

Reductions in illiteracy rates should be good indicators of progress toward universalization of effective basic education. Since adult education has received only fitful attention in most educational programmes, the downward trend in illiteracy rates affects mainly young people. For present purposes, the age group 15-19 has been selected to gauge the impact of schooling on illiteracy during the 1960s. In all except one (Dominican Republic) of the nine countries for which comparisons can be made, illiteracy rates for this age group fell between 1960 and 1970 (see table 4).

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<sup>46/</sup> See Education, Human Resources and Development in Latin America (United Nations publication, Sales No.: E.68.II.G.7; Chapter XII in Social Change and Social Development Policy in Latin America, *op. cit.*); and "Secondary Education, Social Structure and Development in Latin America", (E/CN.12/924 and ILP./S.7/T.1 document presented jointly by ECLA and the Latin American Institute for Economic and Social Planning at the Conference of Ministers of Education and those responsible for the promotion of Science and Technology in relation to development in Latin America and the Caribbean, convened by UNESCO, Venezuela, December 1971.

Table 4

## LATIN AMERICA: ILLITERACY, SCHOOL ATTENDANCE AND ENROLMENT IN PRIMARY EDUCATION

Country	Percentage of illiteracy in 15-19 age group		Percentage of population attending school by simple years of age						Enrolment in grade 6 as a percentage of population aged 12 years	
	1960	1970	10 years		13 years		16 years		1960	1970
			1960	1970	1960	1970	1960	1970		
Argentina	5.0	4.1	89.9	92.8	71.9	76.5	32.1	41.8	64.9 <sub>a/</sub>	80.6 <sub>b/</sub>
Bolivia	-	-	-	82.4	-	-	-	-	34.9 <sub>e/</sub>	34.7 <sub>d/</sub>
Brazil	33.4	24.3	61.6	73.8	50.4	66.6	21.6	42.1	13.5	34.3
Colombia	17.4 <sub>h/</sub>	-	65.3	-	37.0	-	10.6	-	27.4 <sub>h/</sub>	35.8 <sub>d/</sub>
Chile	9.4	4.0	86.9	94.5	80.9	90.4	40.6	60.1	80.2 <sub>e/</sub>	88.0
Costa Rica	8.6 <sub>f/</sub>	-	87.7	-	62.5	-	26.2	-	40.7 <sub>g/</sub>	79.0 <sub>i/</sub>
Cuba	-	-	91.0 <sub>i/</sub>	82.2 <sub>f/</sub>	81.9 <sub>f/</sub>	74.6 <sub>a/</sub>	28.6 <sub>f/</sub>	24.1 <sub>d/</sub>	51.9	-
Ecuador	20.2 <sub>e/</sub>	-	-	-	-	-	-	-	36.3 <sub>e/</sub>	60.4
El Salvador	37.3 <sub>a/</sub>	26.6 <sub>h/</sub>	62.9	-	53.5	-	21.6	-	30.5 <sub>a/</sub>	48.5
Guatemala	56.7 <sub>e/</sub>	-	50.3	54.4	26.2	32.4	-	-	-	22.6
Haiti	-	-	-	-	-	-	-	-	-	-
Honduras	45.7 <sub>a/</sub>	-	54.7	-	42.6	-	34.9	-	20.9 <sub>e/</sub>	40.2
Mexico	25.9	15.0	88.8	78.4	-	63.3	-	-	37.2	63.7
Nicaragua	44.9 <sub>a/</sub>	33.4 <sub>h/</sub>	52.8	56.3	38.4	56.6	-	35.9	17.1 <sub>a/</sub>	34.3
Panama	12.7	10.8	83.7	88.1	70.7	78.9	34.1	48.1	66.4	73.0
Paraguay	13.2 <sub>g/</sub>	8.8	78.1	90.1	47.6	81.3	-	29.6	33.4	50.0
Peru	26.2 <sub>a/</sub>	-	77.7 <sub>i/</sub>	-	69.9 <sub>i/</sub>	-	46.2 <sub>i/</sub>	-	-	65.9
Dominican Republic	17.4	22.1	78.4	-	78.2	-	42.9	-	-	35.8
Uruguay	2.3 <sub>f/</sub>	-	95.5	-	81.2	-	38.3	-	68.6 <sub>e/</sub>	82.9 <sub>*/</sub>
Venezuela	25.3 <sub>a/</sub>	-	88.0	81.5 <sub>d/</sub>	64.7	66.1 <sub>d/</sub>	32.7	31.1 <sub>d/</sub>	46.1 <sub>a/</sub>	63.7

Sources: National censuses.

CELADE: Census sample operation (Operación muestra de censos - OMUECE).

UNESCO/MINESLA/Ref. 2, *Evolución y tendencias del crecimiento de la educación en América Latina y el Caribe*, 1971.OEA: *América en cifras*, 1963-1972.

Official education statistics.

a/ 1961.            d/ 1968.            g/ Includes only official day-time enrolment.  
b/ 1969.            e/ 1964.            h/ 1971.  
c/ 1962.            f/ 1963.            i/ 1965.



In four cases, however, the percentage drop is not great enough to reduce the absolute number of youthful illiterates, and this group includes two countries (Argentina and Panama) with low illiteracy rates in 1960, as well as two countries (Brazil and Nicaragua) with high rates. In 1970 as in 1960 the rates of youthful illiteracy vary enormously from country to country, with the differences corresponding roughly to the classification of national situations used elsewhere in this chapter. The predominantly urbanized countries have the lowest rates; the smaller predominantly rural countries the highest. Paraguay, however, has a much lower illiteracy rate among youth than would be expected from its overall development pattern and Brazil a higher rate. In the countries with high youthful illiteracy the maximum annual decrease in the rate has been around one percentage point. Experience indicates that reduction of youthful illiteracy through education can be relatively rapid in urbanizing and modernizing countries in which the initial rate is above 50 per cent because the educational programmes satisfy pre-existing social demands. Once the rate has fallen below 20 per cent, however, in countries with a considerable rural population, progress tends to slow down since the remaining illiterates belong to dispersed rural families and to urban families in situations of extreme poverty which do not require literacy for their occupations, are weakly integrated to the national society, and are hard to reach by educational services. It must also be pointed out that the information discussed above refers to census-defined literacy and not to functional literacy - capacity to read, write and understand texts relevant to daily life - which is considered to require a minimum of three years of regular school attendance.

Primary school enrolment in most countries has grown at rates well above the average annual 3 per cent increase in numbers of children in the relevant age group. Here recent rates of change are more varied; some countries have made impressive jumps in enrolment and should be able to bring down illiteracy in the groups immediately above the ages

/of basic

of basic schooling a good deal more rapidly than in the past.<sup>47/</sup> For present purposes, so as to reduce the lack of comparability caused by the different lengths of primary courses in different countries, achievements can best be gauged by comparing enrolment in the first six grades of schooling, whether the upper grades are classified as primary or secondary, with the size of the seven-year age group 6-12; and enrolment in the sixth grade with the number of children twelve years of age (see table 5). These indicators measure educational coverage rather than output, since a ratio of 100 per cent does not guarantee that all children are promoted normally and complete six grades or that all of them actually belong to the proper age group, or that all children enrolled attend school. A ratio close to 100 per cent does indicate, however, that educational supply is adequate to give each child six years of schooling. According to the first indicator seven countries (Argentina, Costa Rica, Cuba, Chile, Panama, Peru and Uruguay) have by now achieved a coverage above 95 per cent. Six other countries (Brazil, Ecuador, Mexico, Paraguay, Dominican Republic and Venezuela) are above 80 per cent. The remaining countries listed are still some distance from complete coverage, although one of the large countries (Colombia) and some of the small predominantly rural countries (Honduras and Nicaragua) have made rapid gains.

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<sup>47/</sup> The most remarkable achievement of high sustained growth from a relatively high base level is that of Costa Rica, which during the whole period 1950-1972 outpaced an average annual increase of 4.3 per cent in the number of children aged 6-13 with an annual increase in primary enrolment of 5.6 per cent and an annual increase in primary graduates of 10.6 per cent, indicating steady improvement in school retention of pupils in spite of the rapid growth in number of entrants. During these 22 years the number of primary pupils more than tripled and the annual number of graduates increased more than seven-fold. (Universidad de Costa Rica, Diagnóstico del sistema de educación científica y tecnológica de Costa Rica y bases para su planificación a largo plazo (Ciudad Universitaria "Rodrigo Facio", 1974).)

Table 5

## LATIN AMERICA: RATE OF SCHOOL ATTENDANCE AND INCREASES AT VARIOUS LEVELS OF EDUCATION

Country	Pre-school enrolment as a percentage of population aged 5 years	Primary education enrolment grades 1-6 as a percentage of population aged 6-12 years		Secondary education enrolment grades 7-12 as a percentage of population aged 13-19 years		Higher education enrolment grades 13 and over as a percentage of population aged 20-24 years		Net percentage increase 1960-1974			
								Pre-school education	Primary education	Secondary education	Higher education
	1974	1960	1974	1960	1974	1960	1974				
Argentina	60.5 <sup>a</sup> / <sub>f</sub>	98.3	100.7 <sup>a</sup> / <sub>f</sub>	27.0	47.8 <sup>a</sup> / <sub>f</sub>	11.3	22.0 <sup>a</sup> / <sub>f</sub>	241.8 <sup>b</sup> / <sub>f</sub>	23.1 <sup>b</sup> / <sub>f</sub>	95.7 <sup>b</sup> / <sub>f</sub>	134.4 <sup>b</sup> / <sub>f</sub>
Bolivia	...	53.8	79.5 <sup>g</sup> / <sub>f</sub>	9.9	12.5 <sup>g</sup> / <sub>f</sub>	3.6	6.4 <sup>g</sup> / <sub>f</sub>	...	120.5 <sup>g</sup> / <sub>f</sub>	131.9 <sup>g</sup> / <sub>f</sub>	150.5 <sup>b</sup> / <sub>f</sub>
Brazil	15.9 <sup>g</sup> / <sub>f</sub>	59.7	91.4 <sup>g</sup> / <sub>f</sub>	9.5	16.6 <sup>g</sup> / <sub>f</sub>	1.5	8.3 <sup>g</sup> / <sub>f</sub>	98.3 <sup>g</sup> / <sub>f</sub>	145.7 <sup>g</sup> / <sub>f</sub> / <sub>i</sub>	10.4 <sup>g</sup> / <sub>f</sub> / <sub>i</sub>	707.0 <sup>b</sup> / <sub>f</sub>
Colombia	9.7 <sup>*</sup>	54.8	80.3 <sup>*</sup>	10.2	17.0 <sup>*</sup>	1.7	7.1 <sup>*</sup>	85.5	130.9	450.5	595.1
Chile	29.9 <sup>a</sup> / <sub>f</sub>	88.7	102.8 <sup>a</sup> / <sub>f</sub>	21.5	49.3 <sup>a</sup> / <sub>f</sub>	4.0	17.8 <sup>a</sup> / <sub>f</sub>	170.9 <sup>b</sup> / <sub>f</sub>	97.9 <sup>b</sup> / <sub>f</sub>	95.2 <sup>b</sup> / <sub>f</sub>	550.2 <sup>b</sup> / <sub>f</sub>
Costa Rica	23.5 <sup>c</sup> / <sub>f</sub>	81.9	100.0 <sup>c</sup> / <sub>f</sub>	16.2	31.8 <sup>c</sup> / <sub>f</sub>	4.8	12.5 <sup>c</sup> / <sub>f</sub>	159.4 <sup>a</sup> / <sub>f</sub>	89.0 <sup>a</sup> / <sub>f</sub>	260.6 <sup>a</sup> / <sub>f</sub>	344.4 <sup>a</sup> / <sub>f</sub>
Cuba	53.7 <sup>d</sup> / <sub>f</sub>	94.5	107.5 <sup>d</sup> / <sub>f</sub>	12.3	23.7 <sup>d</sup> / <sub>f</sub>	3.3	4.2 <sup>d</sup> / <sub>f</sub>	21.4 <sup>g</sup> / <sub>f</sub>	48.6 <sup>g</sup> / <sub>f</sub>	75.6 <sup>g</sup> / <sub>f</sub>	30.0 <sup>g</sup> / <sub>f</sub>
Ecuador	7.0 <sup>d</sup> / <sub>f</sub>	72.6	84.7 <sup>h</sup> / <sub>f</sub>	10.6	25.5 <sup>h</sup> / <sub>f</sub>	2.6	7.6 <sup>h</sup> / <sub>f</sub>	17.5 <sup>g</sup> / <sub>f</sub>	77.4 <sup>i</sup> / <sub>f</sub>	260.6 <sup>i</sup> / <sub>f</sub>	327.3 <sup>i</sup> / <sub>f</sub>
El Salvador	20.8 <sup>g</sup> / <sub>f</sub>	66.7	74.5 <sup>g</sup> / <sub>f</sub>	9.6	17.2 <sup>g</sup> / <sub>f</sub>	1.1	6.3 <sup>g</sup> / <sub>f</sub>	101.1 <sup>e</sup> / <sub>f</sub>	78.9 <sup>e</sup> / <sub>f</sub>	192.5 <sup>e</sup> / <sub>f</sub>	736.1 <sup>e</sup> / <sub>f</sub>
Guatemala	13.2 <sup>g</sup> / <sub>f</sub>	39.9	53.8 <sup>g</sup> / <sub>f</sub>	4.8	10.4 <sup>g</sup> / <sub>f</sub>	1.6	3.7 <sup>*</sup>	26.2 <sup>g</sup> / <sub>f</sub>	96.0 <sup>g</sup> / <sub>f</sub>	202.9 <sup>g</sup> / <sub>f</sub>	232.8 <sup>*1</sup> / <sub>f</sub>
Haiti	...	30.8	30.6 <sup>d</sup> / <sub>f</sub>	3.2	4.5 <sup>d</sup> / <sub>f</sub>	0.5	0.3 <sup>d</sup> / <sub>f</sub>	...	21.8 <sup>i</sup> / <sub>f</sub>	75.8 <sup>i</sup> / <sub>f</sub>	-16.5 <sup>i</sup> / <sub>f</sub>
Honduras	11.7 <sup>g</sup> / <sub>f</sub>	56.9	77.7 <sup>g</sup> / <sub>f</sub>	5.7	12.5 <sup>g</sup> / <sub>f</sub>	1.1	3.1 <sup>g</sup> / <sub>f</sub>	290.2 <sup>g</sup> / <sub>f</sub>	100.9 <sup>g</sup> / <sub>f</sub>	229.3 <sup>g</sup> / <sub>f</sub>	333.6 <sup>g</sup> / <sub>f</sub>
Mexico	23.4 <sup>c</sup> / <sub>f</sub>	70.1	94.5 <sup>c</sup> / <sub>f</sub>	10.0	17.7 <sup>c</sup> / <sub>f</sub>	2.6	6.8 <sup>c</sup> / <sub>f</sub>	77.9 <sup>g</sup> / <sub>f</sub>	100.7 <sup>e</sup> / <sub>f</sub>	191.3 <sup>e</sup> / <sub>f</sub>	295.0 <sup>e</sup> / <sub>f</sub>
Nicaragua	12.1 <sup>a</sup> / <sub>f</sub>	48.7	71.1 <sup>a</sup> / <sub>f</sub>	5.4	17.9 <sup>a</sup> / <sub>f</sub>	1.2	5.4 <sup>a</sup> / <sub>f</sub>	-56.1 <sup>b</sup> / <sub>f</sub>	120.4 <sup>b</sup> / <sub>f</sub>	455.8 <sup>b</sup> / <sub>f</sub>	551.0 <sup>b</sup> / <sub>f</sub>
Panama	23.4	80.5	108.1	25.0	49.8	4.6	17.1	248.7	108.7	221.6	503.0
Paraguay	2.0 <sup>a</sup> / <sub>f</sub>	84.7	87.9 <sup>a</sup> / <sub>f</sub>	9.4	16.5 <sup>a</sup> / <sub>f</sub>	2.3	5.7 <sup>a</sup> / <sub>f</sub>	109.7 <sup>b</sup> / <sub>f</sub>	49.7 <sup>b</sup> / <sub>f</sub>	177.0 <sup>b</sup> / <sub>f</sub>	279.6 <sup>b</sup> / <sub>f</sub>
Peru	18.4 <sup>d</sup> / <sub>f</sub>	72.5	111.9 <sup>*</sup>	13.5	34.6 <sup>*h</sup> / <sub>f</sub>	3.6	11.0 <sup>d</sup> / <sub>f</sub>	135.1 <sup>g</sup> / <sub>f</sub>	107.4 <sup>i</sup> / <sub>f</sub>	264.7 <sup>i</sup> / <sub>f</sub>	340.3 <sup>i</sup> / <sub>f</sub>
Dominican Republic	7.5 <sup>c</sup> / <sub>f</sub>	82.0	87.1 <sup>c</sup> / <sub>f</sub>	11.6	19.5 <sup>c</sup> / <sub>f</sub>	1.5	5.8 <sup>c</sup> / <sub>f</sub>	156.5 <sup>e</sup> / <sub>f</sub>	65.0 <sup>e</sup> / <sub>f</sub>	189.2 <sup>e</sup> / <sub>f</sub>	538.1 <sup>e</sup> / <sub>f</sub>
Uruguay	40.9 <sup>d</sup> / <sub>f</sub>	93.8	98.9 <sup>d</sup> / <sub>f</sub>	32.5	47.6 <sup>d</sup> / <sub>f</sub>	7.7	12.5 <sup>*d</sup> / <sub>f</sub>	20.9 <sup>b</sup> / <sub>f</sub>	10.4 <sup>b</sup> / <sub>f</sub>	87.5 <sup>e</sup> / <sub>f</sub>	67.5 <sup>g</sup> / <sub>f</sub>
Venezuela	25.6 <sup>a</sup> / <sub>f</sub>	83.5	81.2 <sup>a</sup> / <sub>f</sub>	17.7	30.7 <sup>a</sup> / <sub>f</sub>	4.3	14.2 <sup>a</sup> / <sub>f</sub>	343.0 <sup>b</sup> / <sub>f</sub>	57.3 <sup>b</sup> / <sub>f</sub>	223.4 <sup>b</sup> / <sub>f</sub>	417.1 <sup>b</sup> / <sub>f</sub>

Source: UNESCO-OREU: Estadísticas 1. Informaciones estadísticas, octubre 1974.

a/ 1973.

b/ 1960-1973.

c/ 1972.

d/ 1970.

e/ 1960-1972.

f/ First cycle of secondary education is included in primary education.

g/ 1960-1970.

h/ 1971.

i/ 1960-1971.

A comparison of the national rates of progress and the levels achieved suggests that these depend more on political decisions to give priority to primary education than on the overall demographic and economic patterns of the country. The case of Peru, Brazil, Mexico and Colombia, in addition to that of Costa Rica mentioned above, are particularly significant, in that it has proved possible to make rapid advances toward complete coverage in spite of high rates of increase in the size of the age group in question. The ratios of enrolment in the sixth grade to the number of children aged twelve show approximately the same ranking as those for the first indicator, with a few exceptions. The relatively low ranking of Peru by the second indicator presumably derives from the rapidity of expansion of its primary school coverage combined with a relatively high proportion of rural schools that do not offer six grades; here and to some extent in other predominantly rural countries, "incomplete" schools frequently retain pupils for more than one year in the same grade.

The case of Venezuela, in which overall coverage declined but coverage of the sixth grade rose during a decade of rapid urbanization and rapid growth of employment in the secondary and tertiary sectors of the economy is a striking exception to the more general trend. This has attracted the attention of the national authorities, and the range of explanations advanced gives some idea of the difficulty of interpreting any statistical trend in education that appears anomalous: (i) the Venezuelan population is undergoing major spatial redistribution and these movements hinder school attendance (family lack of knowledge concerning location of schools and enrolment procedures, temporary needs for assistance of children in building a new shelter, etc.); (ii) the rhythm of construction and staffing of new schools is inadequate to cope with the redistribution and spatial concentration of population;

/(iii) the

(iii) the expansion of occupational opportunities has been so rapid that formal educational qualifications for entry to the labour market have fallen, so that some sectors of the population do not see a practical need for schooling; (iv) since middle and higher education have expanded enormously during the same period, it is probable that the displacement of financial and human resources to these levels has reduced capacity to improve the coverage of basic education; (v) the evidence of marked improvement in coverage of the sixth grade indicates that efficiency of the primary school system is improving; there is less repetition of grades and the apparent fall in coverage of the age group 6-12 derives partly from the fact that children entering take fewer years to pass through the system.

It is now evident that universalization of effective basic education, in settings in which many children suffer from malnutrition and a home environment uncondusive to learning requires not only a major up-grading of the brief and low-quality schooling they have been offered, but also quite expensive supplementary measures beginning long before the children reach school age - particularly nutritional supplements, health care, nursery schools and kindergartens. Services such as these are by now found in most urban settings, although much more rarely in the rural (with the partial exception of child health services) but in most countries their resources and coverage are small; pre-school education is more accesible to the middle strata than to the children most in need of it. It is significant that pre-school education, in practically all countries for which data are available, ranges between 2 per cent and 5 per cent of primary enrolment. A comparison of pre-school enrolment with the number of children five years of age shows that three countries (Argentina, Cuba and Uruguay) have attained fairly high ratios, but these are also the countries in which family poverty must be least important as a hindrance to effective basic education.

The most striking features of educational change during the past decade have been the enormous increases in enrolment at secondary and higher levels. This trend has been just as pronounced in countries

/that are

that are a long way from universalization of a basic education of adequate duration as in those that have practically achieved this goal. National ratios of enrolment at secondary and higher levels to the relevant age groups are a good deal closer to uniformity than are ratios for the first six grades. (As was stated above, levels of income are also closer to uniformity between countries in the highest groups than at the bottom.) A comparison of age-specific enrolment rates for a few countries for which 1960 and 1970 census data are available indicate that in all cases enrolment at ages 15 and 16 has grown faster than enrolment at age 10. This is quite understandable in Argentina, Chile and Panama, which had more than 80 per cent of the group aged 10 enrolled in 1960, but the differential growth has been even more pronounced in Brazil, where enrolment of this latter group reached only 61.6 per cent in 1960 and 73.8 per cent in 1970; in the latter year enrolment at age 16 for Brazil exceeded that for Argentina.

In the 20 countries of the region for which statistics are available primary enrolment increased between 1960 and 1972 or 1973 from 25 millions to 44 millions; middle-level enrolment from 3.7 millions to 12.3 millions; and university enrolment from five hundred thousand to 2.1 millions. While the rate of increase in university enrolment has been even higher than the rate for middle-level enrolment the numbers involved up to the present have been relatively small, although large enough to overwhelm the capacity of the universities. The huge size of the group now graduating annually from the secondary schools, mainly from university-preparatory courses, indicates that the pressure for mass higher education will become even more intense during the remainder of the 1970s, unless the character of secondary education is drastically transformed, and the aspirations of youth from the middle strata somehow made to conform to the transformation.

In the early 1960s, diagnoses of education in Latin America commonly insisted on the inadequate output of the specialized skills needed for development and on the excessive proportions of persons

/revealed by

revealed by census statistics to be holding posts for which they were educationally unqualified. It followed that rapid and carefully planned expansion of technical and professional education at the middle and higher levels was called for. The shortages are undoubtedly still present in a good many specializations, particularly those for which the international market is so strong that the "brain drain" nullifies the contribution of the educational systems, but for the most part a quite different diagnosis now seems appropriate. The expansion at middle and higher educational levels has taken place, at faster rates than could have been expected a decade ago, but the lines of expansion have not been planned to correspond to any development strategy. They have been shaped by the tactics of families seeking upward mobility for their children and by the greater real opportunities for social ascent offered by some professions and by general education as against technical education. In at least a few countries, overall output at the middle and higher educational levels already markedly exceeds capacity in the appropriate occupations, and the present rates of increase and the distribution of enrolment indicates that this situation is bound to spread to other countries.<sup>48/</sup> The present patterns of educational expansion, in view of the much higher costs

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<sup>48/</sup> In Chile, according to estimates by the Planning Office of the University of Chile, the stock of professionals will increase by 55 per cent during the period 1970-1975. The ideal absorptive capacity for graduates of middle-level education during this period would vary from 13 thousand to 18 thousand persons annually, as against enrolment in the last year of middle education of 64 400 in 1972 and 104 100 in 1975. The ideal absorptive capacity for graduates of higher education would vary between 5 thousand and 8 thousand persons, while university graduates will number nearly 11 thousand in 1972 and 17 thousand in 1975. (Rolando Sánchez Araya and Juan Manuel Cruz, Perspectivas de Desarrollo de la Universidad de Chile (Oficina de Planificación, Universidad de Chile, Santiago, August 1973).)

per student of university and secondary education, also generate claims on public resources that can hardly be reconciled with satisfaction of the continuing needs for upgrading of primary education.<sup>49/</sup>

Two alternative strategies for education reform can be envisaged: (a) A systematic equalization of educational opportunities accompanied by de-emphasis on the schools and the formal educational ladder as an instrument of social mobility and differentiation. That is, pre-school programmes, schools, mass communication media, and adult education would jointly help the family and the individual cope with life in society, leaving a maximum of free choice in use of educational resources made available by the State. Such a strategy, which has been proposed in a number of variations by educators, would require a far-reaching redistribution and transformation of the resources applied to education, and an even more difficult transformation of the expectations of all the social strata now struggling to gain specific advantages from schooling.

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<sup>49/</sup> In Chile, which may be an extreme case, the percentage distribution of the budget of the Ministry of Education has evolved as follows:

	1965	1970	1972
Basic education	40.1	39.7	32.8
Middle education	20.3	20.2	17.3
Higher education	26.6	28.1	37.1
Other	13.0	12.0	12.8
	<hr/> 100.0	<hr/> 100.0	<hr/> 100.0

The items in the "other" category were also, in practice, devoted largely to higher education. In 1971 the ratio of costs per pupil enrolled at the three levels was 1:4:15. (Universidad de Chile, Oficina de Planificación, Antecedentes e Informaciones, No 4, Santiago, August 1973.)



(b) A systematic subordination of educational content and output to the requirements of the prevailing style of development and the distribution of power in the societies. This would imply limits on the further expansion of most lines of higher education and of university-preparatory secondary education, greater selectivity in admissions, planned expansion of technical-vocational education in accordance with demand for specialized manpower, and universalization of terminal primary education for the majority, with content adapted to expected work experience and roles in the society. Such a strategy would also encounter powerful resistances, since it would clash with professed values, and since the groups whose expectations would be frustrated - at the middle as well as the lower levels - would be much larger than the groups gaining. Accordingly, it seems probable that in most countries the internally contradictory growth of education will continue for some time, with successive proposals for reform unable to mobilize sufficiently coherent support, and with a series of expedients relieving the most urgent pressures on resources. As in the case of quantitative increases in other developmental "problems", the capacity of the systems to continue indefinitely without breakdown is likely to prove greater than might be expected from the conspicuousness of present strains and conflicts. However, the present crises, sharply increasing the costs of middle and higher education to the State and to the students' families, while disrupting occupational expectations and further shaking the confidence of educated youth in the viability of the prevailing styles of development, will severely test this capacity.

## Chapter II

### ECONOMIC TRENDS: GLOBAL ASPECTS

#### A. INTRODUCTION

When the general trends in the economic evolution of Latin America in the first years of the 1970s are reviewed, it is easy to see a striking contrast between the testimony of the overall regional indexes and that of individual country records.

If the majority of the indicators of importance for economic growth are analysed, there is no doubt that this period stands out as one of the most dynamic in the recent history of the region, in addition to which the process has been continuous and has had relatively few ups and downs, although a notable exception may be observed in this encouraging overall picture - the re-emergence (or in some cases the appearance) of inflationary pressures.<sup>1/</sup>

Both the aspects mentioned, as will be understood, are closely linked with the performance and effects of the international economic system. In this, the Latin American scene follows familiar patterns, except in one fairly important aspect: while the central countries in 1973 and 1974 underwent the double buffeting from the impact of economic expansion and the activation of their inflation-inspired disequilibria, the region under discussion only suffered from the second of these phenomena since the growth rate remained at a fairly high level during the second of the two years.

Basically, however, the appearance of the whole covers some very sharp contrasts. It is enough to go from the overall indicators to those relevant for specific countries - and even within specific countries - to prove that the rule, although per se valid and important, shows flagrant exceptions.

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<sup>1/</sup> This subject is analysed fairly carefully in the Economic Survey of Latin America, 1974, Part One, on the basis of six national cases.

/In fact,

In fact, if more attention is given to the world and regional situation of dynamism in production and the expansion of trade and financial flows, it will be seen that this cycle has probably been one of the most discrimination-making in its distribution of costs and profits.

Contrary to past experience, the effects of which were usually, although to a varying degree, distributed fairly generally in one direction or the other in periods of booms or crisis, the most extreme situations emerge in the recent economic situation. Particularly during the period 1973 to 1974, countries which had been badly damaged or considerably benefited by the course of events, in particular by those connected with the increase in petroleum prices, existed side by side.

As will be seen below - although not only under this influence - the general appreciation of regional progress, which is certainly promising, covers very notable contrasts if the countries are analysed or grouped in different ways, if the different sectors of production are disentagled, if the repercussions on the well-being of the different social estates are examined, etc.

To sum up, the basic information presented in the sections which follow should thus be viewed in this twofold perspective.

## B. OUTPUT AND AVAILABILITY OF GOODS

### 1. The evolution of production and real income

Now that four years of the decade have gone by, a clear trend of sustained economic growth may be seen in Latin America as a whole, particularly clearly revealed as from 1972. This growth is expressed in an increase in the gross domestic product of 6.7 per cent annually during the period 1970-1973, and it may possibly come close to 7 per cent when the growth of the product in 1974 is known.

This overall regional growth rate which, as a matter of fact, few countries actually reached, exceeds the minimum rate of 6 per cent postulated by the IDS for developing countries, and represents a significant improvement on the increase recorded in the overall output of the region in the 1960s, which was 5.4 per cent in the first

/five-year period

five-year period and 5.9 per cent in the second. As may be clearly seen from figure 1, the present trend of 6.7 per cent has actually been appearing since 1969.

The evolution of the product in recent years has been characterized by the continuing increase in the growth rate, which increased from the relatively low level of 5.8 per cent in 1971 to 6.9 per cent in 1972 and 7.2 per cent in 1973; an increase similar to that of 1973 is expected for 1974 (see table 1).

The above trend represents an increase in the average per capita product of an annual 3.7 per cent, which also exceeds the IDS minimum rate of 3.5 per cent, although this takes into account an annual growth of the population of 2.5 per cent, while this rate in Latin America is around 3 per cent. In 1972 the increase in the per capita product was 4 per cent and in 1973 this was 4.2 per cent.

Among the many factors of all types which contributed to different extents to intensifying growth in 1972 and 1973, the favourable volteface in the prices of the region's export products in general, particularly in 1973, is of particular note. The terms of trade improved notably and the purchasing power of exports increased by 11 per cent in 1972 and 18 per cent in 1973, the results of all of which were increased earnings for the region and a greater availability of imported goods, which increased by 28 per cent in real terms between 1970 and 1973.

The gross domestic income of Latin America which during the second half of the 1960s and also in 1971 increased at a rate similar to that of the gross product, grew by 7.5 per cent in 1972 and 8.5 per cent in 1973. Complete data for 1974 are not available, but it may be assumed that the effect of the terms of trade on real earnings have been negative for those countries which are net importers of relatively large quantities of petroleum and foodstuffs; a different appraisal must have been recorded for the petroleum-exporting countries.

Figure 1

LATIN AMERICA : GROWTH RATE OF THE GROWTH DOMESTIC PRODUCT

Natural scale

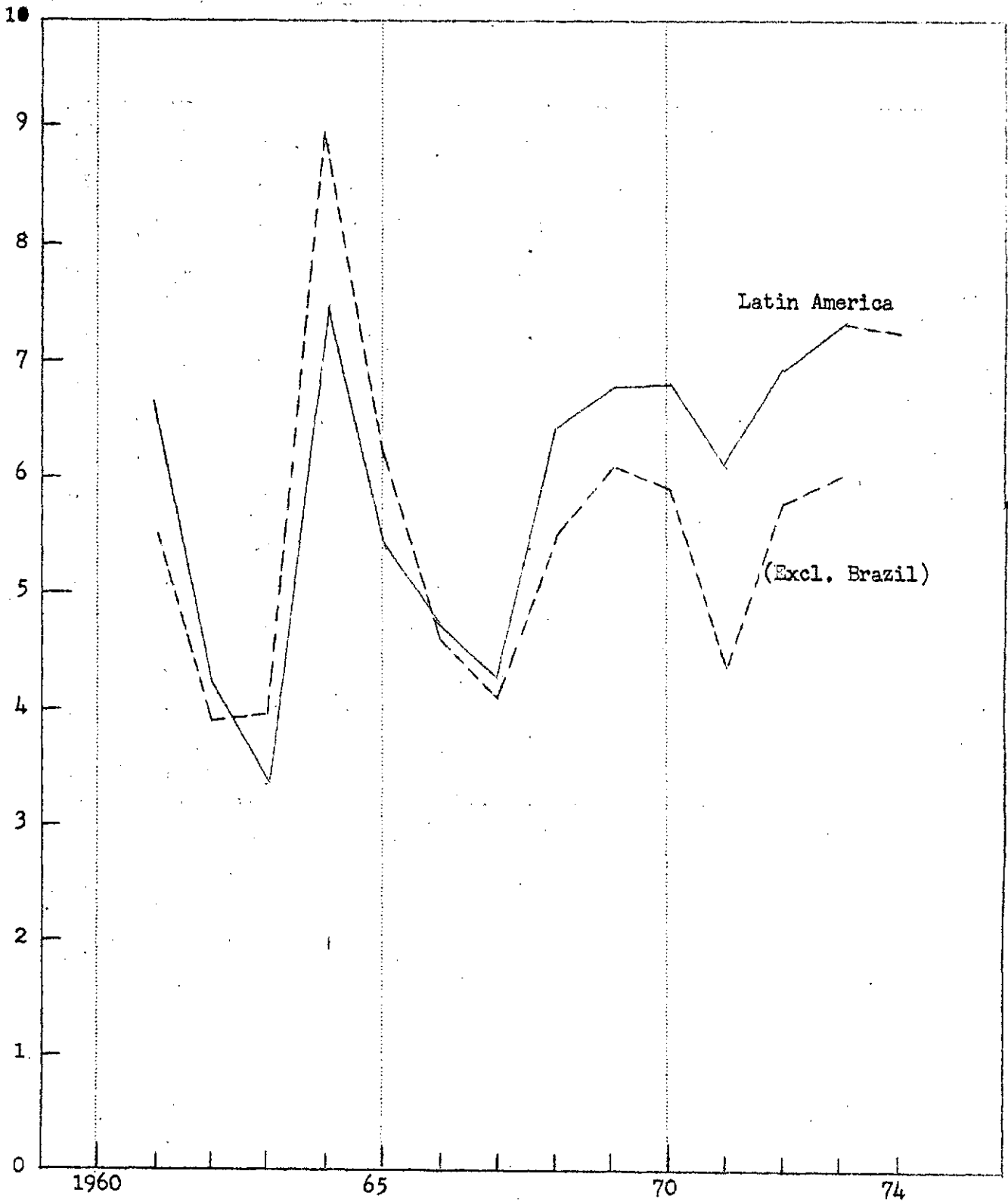


Table 1

LATIN AMERICA: TREND OF THE GROSS DOMESTIC PRODUCT <sup>a/</sup>

Country	1973		Annual growth rate					
	Millions of dollars at 1970 prices	Percent age structure	1965-1973	1970-1971	1971	1972	1973	1974 <sup>b/</sup>
Argentina	32 012	15.4	4.1	5.6	2.7	4.3	3.7	7.2
Brazil	58 023	28.0	7.5	11.0	11.3	10.4	11.4	9.6
Mexico	53 630	25.9	6.9	6.1	3.4	7.3	7.6	5.9
Colombia	13 672	6.6	5.7	6.8	5.5	7.3	7.5	6.1
Venezuela	14 036	6.8	4.5	4.2	2.1	4.6	5.9	5.1
Chile	7 932	3.8	3.9	1.6	7.7	1.4	-4.0	5.0
Peru	8 353	4.0	4.3	6.2	6.5	6.1	6.0	6.6
Uruguay	2 640	1.3	2.3	-0.4	-1.0	-1.3	1.0	1.9
Panama	1 554	0.7	7.4	7.1	8.1	6.5	6.5	4.0
Costa Rica	1 376	0.7	7.0	6.5	6.5	6.8	6.2	4.1
Ecuador	2 766	1.3	5.2	7.2	7.4	5.0	9.2	9.2
Dominican Republic	2 086	1.0	7.8	11.4	10.5	12.5	11.2	8.9
Guatemala	2 677	1.3	5.8	6.8	5.6	7.3	7.6	4.7
El Salvador	1 625	0.8	4.5	5.2	4.6	5.8	5.1	6.0
Nicaragua	956	0.5	4.2	4.0	5.8	4.0	2.2	7.7
Paraguay	960	0.5	4.1	5.7	4.6	5.3	7.2	8.0
Bolivia	1 431	0.7	6.3	4.8	3.8	5.1	5.4	5.7
Honduras	835	0.4	4.2	4.2	3.8	3.9	5.0	-0.5
Haiti	592	0.3	1.8	4.8	6.5	3.6	4.5	3.0
<u>Total</u>	<u>207 156</u>	<u>100.0</u>	<u>5.2</u>	<u>6.7</u>	<u>5.8</u>	<u>6.9</u>	<u>7.2</u>	<u>7.0</u>
<u>Total (excl. Brazil)</u>	<u>149 133</u>	<u>72.0</u>	<u>5.3</u>	<u>5.1</u>	<u>4.0</u>	<u>5.7</u>	<u>5.6</u>	<u>6.1</u>
<u>Total (excl. Brazil, Colombia, Mexico and Venezuela)</u>	<u>67 795</u>	<u>32.7</u>	<u>4.3</u>	<u>4.2</u>	<u>4.3</u>	<u>4.4</u>	<u>3.7</u>	<u>6.4</u>

<sup>a/</sup> At factor cost.

<sup>b/</sup> Very preliminary figures.

/This overall

This overall picture of economic trends in Latin America changes radically when economic performances are examined at the country level and it is observed that in the majority of these growth was not satisfactory. On these grounds it could be said that it was too low and not sufficient to produce changes in the economic conditions of the population. In fact, a singular feature of the economic evolution of the Latin American countries has been their lack of persistence, and their inability to maintain a constant rate of growth for any length of time; this goes for the great majority of the countries.

It is easy to show that regional growth has been strongly influenced throughout all these years by the rapid evolution of the Brazilian economy (11 per cent annually), whose product in 1973 accounted for 28 per cent of the total for Latin America. Excluding Brazil, the growth rate of the product for the region drops from 6.7 to 5.1 per cent annually during the period 1970-1973 (see table 1).

This means that if it were not for Brazil's growth, the economic results for the region would have been considerably lower than the minimum proposed by the IDS (and this rate would only have been achieved in 1972), almost equal to those recorded in the immediately preceding five-year period, and lower than those of the first half of the 1960s (see figure 1).

Without taking Brazil into consideration, the 5.1 per cent growth of the rest of the region during the period 1970-1973 may be explained to a large extent by the performance of Colombia, Mexico and Venezuela which together accounted for nearly 40 per cent of the total product of Latin America and whose growth rate was slightly over 6 per cent during those years.

For the fifteen remaining countries which account for one-third of the population and approximately one-third also of the total product of Latin America, the economic results for the first years of the 1970s were very poor, with a bare 4.2 per cent annual growth and a 1.3 per cent per capita growth. This rate is very much lower than the minimum target postulated by the IDS.

A great variety of situations is also to be found in this group, and this makes any analysis for groups of countries difficult and confuses the general conclusions. The Dominican Republic, for example, had an increase of over 10 per cent during those years, while Ecuador, Panama and Guatemala achieved rates of the order of 7 per cent annually. At the other extreme, the growth of Argentina was only 3.6 per cent annually and that of Chile a mere 1.6 per cent, but these two countries contributed with 19 per cent to the global product for the region (see figure 2).

As regards growth trends at the country level, the intensification of growth observed in Latin America in recent years was found basically to Colombia, Ecuador and Guatemala; in a further six countries the growth rate dropped as from 1971, and this was particularly noteworthy in the case of Chile. In the remaining countries, the rates remained relatively stable at different levels (Brazil, Costa Rica, Dominican Republic, and Uruguay) or underwent considerable fluctuations, as in Mexico (between 1971 and 1972) and Haiti.

In the case of the per capita product, the major differences accumulating at its absolute levels are of note rather than the differences in the country evolution (see table 2).

Expressed in dollars at constant 1970 prices, the average per capita product of Latin America, which in 1965 was 554 dollars increased to 640 in 1970 and reached 714 dollars in 1973.

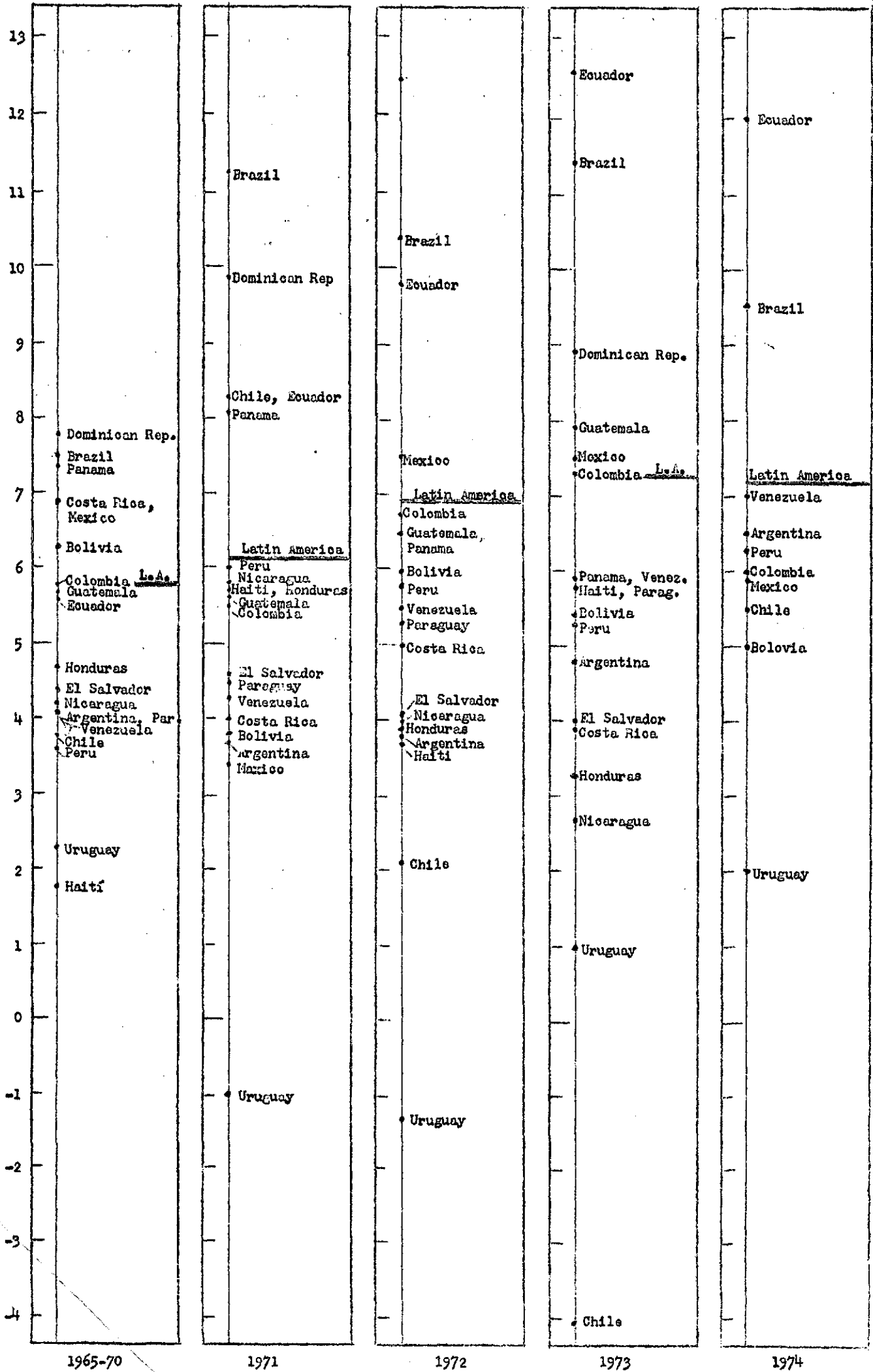
This latter figure is the average of a broad spread which goes from 106 dollars in Haiti to 1,295 in Argentina. Within this range, only one-third of the countries considered are situated on this median for the region. Brazil, Colombia and Peru, which are considered among the countries of most relative development, have a per capita product of the order of 560 dollars, also at 1970 prices (see table 2).



Figure 2

LATIN AMERICA : GROWTH RATE OF THE GROWTH DOMESTIC PRODUCT BY COUNTRY

Natural scale



/ Preliminary estimates subject to revision.

Table 2  
LATIN AMERICA: PER CAPITA GROSS DOMESTIC PRODUCT <sup>a/</sup>  
(Absolute values and percentages)

Country	Dollars at 1970 prices			Annual growth rates					
	1965	1970	1973	1965- 1970	1970- 1973	1971	1972	1973	1974 <sup>b/</sup>
Argentina	1 061	1 213	1 255	2.7	2.2	1.4	2.9	2.4	5.7
Venezuela	1 093	1 176	1 218	1.5	1.2	-0.8	1.6	2.9	2.1
Panama	704	868	980	4.3	4.1	5.1	3.6	3.6	1.2
Mexico	751	899	967	3.5	2.7	0.2	3.9	4.1	2.5
Uruguay	879	927	883	1.1	-1.6	-2.1	-2.5	-0.2	0.7
Chile	720	779	773	1.6	-0.3	5.7	-0.4	-5.7	3.2
Costa Rica	544	656	729	3.8	3.6	3.6	3.9	3.3	1.3
Peru	495	526	578	1.2	3.2	3.5	3.0	3.0	3.5
Colombia	455	509	562	2.3	3.4	2.1	3.9	4.2	2.8
Brazil	357	445	560	4.5	8.0	8.2	7.3	8.3	4.6
Guatemala	362	415	463	2.8	3.7	2.6	4.3	4.5	1.7
Nicaragua	406	432	441	1.2	0.8	2.5	0.7	-1.1	4.3
Dominican Republic	279	347	435	4.4	6.9	7.0	8.9	7.7	5.3
El Salvador	380	397	421	0.9	2.0	1.3	2.5	1.9	2.8
Ecuador	342	372	416	1.7	3.8	4.0	1.6	5.6	5.8
Paraguay	330	353	384	1.4	2.8	1.8	2.4	4.3	4.9
Honduras	273	289	295	1.1	0.7	0.5	0.4	1.3	-4.0
Bolivia	216	260	278	3.8	2.6	1.3	2.6	2.8	3.1
Haiti	102	99	106	-0.6	2.3	3.9	1.0	1.9	0.4
<u>Latin America</u>	<u>554</u>	<u>640</u>	<u>714</u>	<u>2.9</u>	<u>3.7</u>	<u>2.9</u>	<u>4.0</u>	<u>4.2</u>	<u>4.1</u>

Source: ECLA, on the basis of official data supplied by the countries.

<sup>a/</sup> At factor cost.

<sup>b/</sup> Preliminary data subject to revision.

/An examination

An examination of the changes in it from a broader perspective illustrates the point. Between 1965 and 1973 the per capita product in Latin America grew by 29 per cent and 160 dollars. In Brazil and the Dominican Republic it increased by over 50 per cent, which in the case of Brazil meant 200 dollars per capita more. However, in Argentina where the rate only increased by 22 per cent, the absolute increase was as much as 234 dollars during this period.

In the evolution of the per capita product the growth rate of the population naturally has a major influence, and as is typical of the variety of situations which Latin America always presents, this varies between 1.3 per cent (Uruguay) and 3.4 per cent (several countries). One example of this is that between 1965 and 1970 the total gross product increased by 25 per cent in Venezuela and 22 per cent in Argentina, while in per capita terms it increased by 7 per cent in Venezuela and 14 per cent in Argentina, owing to the fact that the population growth rate in Venezuela is more than twice that of Argentina.

In the eight-year period considered, many countries increased the levels of their per capita product by small amounts. In Uruguay and Haiti this product increased by barely four dollars at the end of the period while in Chile, El Salvador, Honduras and Nicaragua the increases reached between 7 and 11 per cent.

## 2. Trends in sectoral production

This general summary of the evolution of production by major economic sectors, which is also reviewed in detail elsewhere in the document, is only given to indicate some of the most relevant factors which have conditioned economic growth in the 1970s.

The faster growth of the product during the three-year period 1970-1973 continued to be based on the factors which have traditionally developed most rapidly: the manufacturing industry, construction and basic services, including transport and electricity, gas and water services.

The "other services", which carry a relatively heavy weight in the structure of the total product (45 per cent in 1973) and which include trading activity among their components, have, generally speaking, increased at a rate similar to that of the total product.

In contrast, the primary sectors like agriculture and mining had a slower growth rate, except in countries where some new mining activity has been begun, as have been the recent cases of Ecuador and the Dominican Republic. Furthermore, agriculture which had a fairly important share of total economic activity, principally among the economically most backward countries, shows continual fluctuations from one year to another, and this naturally makes it difficult to obtain higher and more sustained growth rates (see tables 3 and 5).

For purposes of comparison it is worth mentioning again that between the second half of the 1960s and the period 1970-1973 the annual growth rate of the total product increased from 5.9 per cent to 6.7 per cent. Meanwhile, manufacturing output increased at substantially higher rates during those periods, from 7.4 to 8.6 per cent, which meant that its share in the overall product increased from 21 per cent in 1965 to 24 per cent in 1973. This meant that between 1965 and 1973 the output of manufactures increased by 84 per cent, while total output increased by 61 per cent. Population increases were 26 per cent for the total and around 50 per cent for the urban population.

Although the evolution of the manufacturing industry has been uneven at the country level, this phenomenon has been less pronounced than the case of other activities (see table 4).

In fact, there was a clear reciprocal influence between the growth of the overall product and the dynamism of industrial activities. In some cases, it is clear that this latter sector has had a decisive influence on the performance of the whole; in others, however, the overall dynamism would appear to have carried industrial activities along with it. However, there were also countries where this association was not present. Argentina had a virtual standstill in agricultural output (the average of violent fluctuations) and a decline in construction.

Table 3  
 LATIN AMERICA: STRUCTURE AND GROWTH OF THE GROSS PRODUCT BY SECTOR <sup>a/</sup>  
 (Percentages)

	1965	1970	1973	Percentage increase	
				1965-1973	1970-1973
Agriculture	17.2	15.0	13.4	26.6	9.3
Mining	4.8	4.5	3.8	29.5	4.4
Manufacturing	21.3	23.0	24.1	83.5	28.2
Construction	4.5	5.2	5.4	94.6	27.2
<u>Subtotal</u>	<u>47.8</u>	<u>47.7</u>	<u>46.7</u>	<u>58.7</u>	<u>19.9</u>
Basic services	7.5	8.0	8.1	74.1	24.1
Other services	44.7	44.3	45.2	55.4	23.6
<u>Total product</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>61.1</u>	<u>21.2</u>

Source:

<sup>a/</sup> Since the product was obtained by extrapolation using 1970 as the base year, the sum of the sectoral components of the gross product does not necessarily add up to 100.

Table 4

LATIN AMERICA: SHARE OF THE AGRICULTURAL SECTOR IN THE GENERATION OF THE GROSS DOMESTIC PRODUCT AND GROWTH RATE <sup>a/</sup>

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965-1970	1970-1973	1971	1972	1973
Chile	8.1	6.1	3.0	-5.9	5.1	-5.7	-15.8
Venezuela	7.3	7.1	5.6	2.3	0.9	2.0	5.8
Mexico	14.4	10.2	2.7	1.0	2.0	0.5	0.6
Argentina	15.2	12.0	1.2	0.4	-3.9	-0.1	5.6
Brazil	17.9	12.4	3.0	6.4	11.4	4.5	3.5
Uruguay	12.3	12.6	2.8	-0.5	-1.2	-3.4	3.1
Bolivia	22.8	16.1	0.2	2.9	4.0	2.7	2.1
Peru	20.8	16.5	2.8	-1.0	0.9	-4.5	0.9
Panama	24.0	18.6	4.0	3.4	3.7	3.0	3.4
Dominican Republic	28.7	21.3	4.9	5.2	5.5	3.6	6.6
Ecuador	36.6	24.7	0.8	0.5	-1.4	4.5	-1.4
Costa Rica	27.3	24.8	5.1	6.2	5.6	5.7	7.2
Nicaragua	28.9	25.9	2.1	4.6	10.0	2.4	1.7
Colombia	30.6	27.1	4.8	4.5	2.5	5.8	5.3
El Salvador	31.6	25.1	3.9	3.4	3.8	1.4	4.9
Guatemala	31.5	31.2	4.7	8.0	7.1	7.8	9.1
Paraguay	38.6	31.8	1.7	6.3	4.0	5.2	9.7
Honduras	42.1	35.0	3.2	4.6	6.2	3.1	4.5
Haiti	52.0	47.4	1.3	2.5	3.9	3.0	0.6
<u>Latin America</u>	<u>17.2</u>	<u>13.4</u>	<u>3.0</u>	<u>3.0</u>	<u>3.6</u>	<u>2.3</u>	<u>3.1</u>

Source: ECLA, on the basis of official data supplied by the countries concerned.

<sup>a/</sup> Calculations are based on values at constant 1970 prices and refer to the "value added" concept.

Table 5

LATIN AMERICA: SHARE OF THE MANUFACTURING SECTOR IN THE GENERATION OF THE GROSS DOMESTIC PRODUCT AND GROWTH RATE <sup>a/</sup>

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965-1970	1970-1973	1971	1972	1973
Argentina	28.6	32.3	5.0	6.5	5.8	6.7	6.8
Chile	28.9	30.2	3.6	3.7	13.7	3.5	-5.3
Brazil	22.0	26.2	10.4	13.7	11.3	14.1	15.8
Uruguay <sup>b/</sup>	24.1	24.0	2.4	-0.9	-1.8	-0.3	-0.4
Mexico	21.3	23.9	8.8	6.8	3.2	8.5	8.8
Colombia	17.0	18.8	6.4	9.6	7.9	10.0	10.9
Ecuador	17.1	19.1	6.3	9.0	8.6	7.3	11.1
Peru	15.2	18.0	5.8	7.8	8.6	7.3	7.5
El Salvador	16.7	17.9	5.7	5.8	7.0	4.5	5.9
Nicaragua	14.5	17.8	8.1	4.4	4.8	6.5	1.8
Dominican Republic	12.7	17.1	13.6	12.2	13.2	10.4	13.0
Paraguay	16.1	16.9	5.6	4.9	3.3	6.3	5.2
Costa Rica <sup>b/</sup>	13.5	16.5	9.5	9.5	9.6	8.8	10.0
Panama	14.2	15.5	9.6	6.2	8.2	6.3	4.2
Honduras	11.1	15.2	4.7	7.1	5.5	7.8	8.1
Guatemala	13.0	14.7	8.2	6.9	7.2	5.5	8.1
Bolivia	12.9	13.0	6.4	4.9	2.8	5.4	6.5
Venezuela	11.2	12.6	5.2	7.9	6.4	9.7	7.7
Haiti	8.6	10.9	4.4	8.5	6.0	8.6	10.8
<u>Latin America</u>	<u>21.3</u>	<u>24.1</u>	<u>7.4</u>	<u>8.6</u>	<u>7.2</u>	<u>9.2</u>	<u>9.5</u>

Source: ECLA, on the basis of official data supplied by the countries concerned.

<sup>a/</sup> Calculations are based on values at 1970 prices.

<sup>b/</sup> Including mining and quarrying.

In Peru, agriculture and the fisheries in particular also experienced a decline, and in Honduras and Haiti where industry is of little importance agriculture, which grew very little during those years, accounted for 35 per cent in Honduras and 47 per cent in Haiti of the total.

In contrast to the dynamism of the manufacturing industry, the agricultural product increased at a rate of 3 per cent annually during the three-year period 1970-1973, at nearly the same rate as that of the population and with marked fluctuations from one year to another: 3.6 per cent, 2.3 per cent and 3.1 per cent, this has become a feature of the sector's evolution, reflecting the instability inherent in an output subject to the uncertain factors of climate and prices (see table 5).

During the previous five years, agriculture also increased at a rate of 3 per cent. Between 1965 and 1973 it increased by 27 per cent, which means that in eight years per capita agricultural output practically did not increase. Its slow evolution has meant that it has rapidly lost importance compared with other outputs. In 1965 it accounted for 17 per cent of the total product; in 1973 it accounted for only 13 per cent. However, this percentage varies in a broad range from around 7 per cent in Chile and Venezuela to 48 per cent in Haiti. At the present time, it still accounts for more than 20 per cent in ten countries of the region (out of nineteen considered), among which are to be found the countries of Central America and the Caribbean, Ecuador, Paraguay and Colombia.

Mining is of little importance in the total output of Latin America (3.8 per cent) and has been losing importance in the course of time owing to its slow evolution (4.4 per cent annually in 1965-1970 and 1.5 per cent in 1970-1973), although in 1973 the mining product increased by 5.4 per cent, owing to the start made to the large-scale mining of petroleum in Ecuador and of ferronickel in the Dominican Republic (see table 6).



Table 6

LATIN AMERICA: SHARE OF THE MINING AND QUARRYING SECTOR IN THE GENERATION OF THE GROSS DOMESTIC PRODUCT AND GROWTH RATE <sup>a/</sup>

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965-1970	1970-1973	1971	1972	1973
Venezuela	26.8	19.1	1.9	-2.1	-6.4	-6.3	6.7
Bolivia	12.0	13.4	11.0	0.9	4.2	-4.1	3.0
Chile	11.6	11.7	4.9	0.3	2.0	-3.1	2.1
Peru	9.6	7.8	2.2	0.9	-5.1	6.7	1.5
Ecuador	1.6	7.3	3.3	84.7	48.6	56.8	170.2
Dominican Republic	1.7	6.1	8.3	69.3	1.7	223.8	47.4
Mexico	4.0	3.8	7.2	3.8	2.4	6.1	3.0
Honduras	1.9	2.7	5.8	10.6	-0.5	7.2	26.8
Haiti	1.5	1.9	5.0	9.3	17.8	-14.5	30.0
Colombia	2.5	1.6	1.5	-2.1	-4.6	-6.0	4.8
Argentina	1.2	1.1	9.0	-7.7	-4.5	3.2	-20.2
Brazil	0.8	0.8	10.7	8.0	4.6	8.8	10.7
Nicaragua	1.0	0.6	-5.9	4.3	-1.7	1.0	12.6
Panama	0.3	0.4	6.2	17.1	13.0	3.9	37.0
Paraguay	0.2	0.3	-5.8	33.9	130.1	1.8	2.4
El Salvador	0.2	0.2	3.8	3.6	-2.9	11.8	2.6
Guatemala	0.1	0.1	1.3	0.0	0.0	-12.5	14.3
Costa Rica <sup>b/</sup>	...	...	...	...	...	...	...
Uruguay <sup>b/</sup>	...	...	...	...	...	...	...
<u>Latin America</u>	<u>4.8</u>	<u>3.8</u>	<u>4.4</u>	<u>1.5</u>	<u>-1.8</u>	<u>0.9</u>	<u>5.4</u>

Source: ECLA, on the basis of official data supplied by the countries concerned.

<sup>a/</sup> Calculations are based on values at 1970 prices.

<sup>b/</sup> Including manufacturing.

Construction has always been considered among the dynamic activities which give impetus to economic growth. During the five-year period 1965-1970 this was the activity which showed most growth (8.9 per cent annually) and it practically maintained this growth during the period 1970-1973; its contribution to the total product is, however, barely 5.4 per cent (see table 7).

The dynamic performance of construction increased in recent years, but the differences between countries were very notable. Thus, after increasing by 5.2 per cent in 1971, the next year it increased by 11.0 per cent and in 1973 by 8.9 per cent. During this last year, for example, the value added for construction increased by more than 10 per cent in eight of the countries considered; in Argentina, however, it dropped by 10 per cent, in Chile by 12 per cent and in El Salvador by 11 per cent.

The performance of basic services has been more even. During 1970-1973 these grew at a rate of 7.5 per cent, slightly faster than in the previous five-year period; this is to be explained by the increase of 8.6 per cent which they achieved in 1973. As far as "other services" are concerned, these increased as a whole at an annual rate of 5.7 per cent in the five-year period 1965-1970 and at 7.3 per cent between 1970-1973 (see tables 8 and 9).

Reviewing the progress of the product by sectors it may be seen that the overall product for the region is divided almost equally between the production of goods, including construction (47 per cent) and the production services. These proportions have varied little (the production of goods in 1965 reached 48 per cent), although in recent years services have grown more rapidly, and this dynamism has meant a boom in basic services.

If a comparison is made between the structure of economic activities in two groups of six countries, a group which includes those of most relative economic weight, and the other including the Central American countries and Ecuador, which have many features in common and a per capita product of just over 400 million dollars, some facts which confirm the standard theories on the subject may be observed.

Table 7

LATIN AMERICA: SHARE OF THE CONSTRUCTION SECTOR IN THE GENERATION OF THE GROSS DOMESTIC PRODUCT AND GROWTH RATE <sup>a/</sup>

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965-1970	1970-1973	1971	1972	1973
Dominican Republic	3.7	7.5	17.0	23.3	34.4	22.4	14.0
Panama	5.3	7.2	9.1	12.2	18.6	12.0	6.2
Peru	7.2	6.7	-0.4	10.1	10.1	12.0	8.2
Brazil	5.1	5.9	10.7	12.2	8.4	12.9	15.5
Mexico	4.7	5.9	9.7	9.5	-2.6	17.6	14.8
Venezuela	4.2	5.7	3.9	17.5	16.8	25.3	10.8
Colombia	3.9	5.2	12.3	6.7	7.1	1.8	11.5
Ecuador	2.5	4.7	17.2	9.2	50.0	-22.2	11.7
Costa Rica	5.3	4.7	4.8	6.0	8.0	6.5	3.5
Argentina	3.8	4.6	11.7	-1.9	0.3	4.3	-9.9
Bolivia	5.6	4.4	1.8	3.6	4.1	-0.2	7.2
Uruguay	3.5	4.2	4.3	3.0	5.8	5.5	-2.0
Honduras	3.5	3.9	8.8	-4.0	-7.6	-9.3	5.7
Chile	5.1	3.6	0.7	-4.6	11.4	-11.5	-12.0
Nicaragua	3.1	3.4	5.0	6.2	3.6	9.0	6.2
El Salvador	3.6	3.4	1.2	9.4	10.7	32.9	-11.0
Paraguay	2.5	3.4	8.3	10.9	10.4	6.0	16.3
Haiti	2.3	3.1	1.4	15.5	15.7	15.8	15.4
Guatemala	2.5	2.5	3.0	12.4	0.4	20.1	18.0
<u>Latin America</u>	<u>4.5</u>	<u>5.4</u>	<u>8.9</u>	<u>8.4</u>	<u>5.2</u>	<u>11.0</u>	<u>8.9</u>

Source: ECLA, on the basis of official data supplied by the countries concerned.

<sup>a/</sup> Calculations are based on values at 1970 prices.

Table 8

LATIN AMERICA: SHARE OF THE BASIC SERVICES SECTOR<sup>a/</sup> IN THE GENERATION OF  
THE GROSS DOMESTIC PRODUCT AND GROWTH RATE<sup>b/</sup>

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965- 1970	1970- 1973	1971	1972	1973
Venezuela	10.6	13.2	7.6	7.7	8.0	9.1	6.0
Argentina	12.0	12.2	4.4	3.8	3.8	2.5	5.3
Bolivia	10.7	11.0	6.5	5.2	4.0	5.8	5.9
Uruguay	10.9	10.2	0.7	-0.1	3.3	-4.7	1.4
Dominican Republic	8.9	9.5	10.0	9.7	11.9	8.6	8.7
Colombia	8.5	9.2	6.9	8.3	7.0	8.6	9.4
Panama	6.1	8.8	12.2	12.1	15.8	9.1	11.6
Brazil	7.5	8.0	9.8	10.6	9.3	9.0	13.6
Honduras	7.2	8.2	3.2	4.8	3.0	5.9	5.4
Nicaragua	7.2	7.7	5.4	3.8	4.7	4.9	1.7
Ecuador	6.8	8.0	8.3	7.3	5.9	8.0	7.9
Chile	7.5	7.6	3.8	2.2	7.7	3.4	-4.2
El Salvador	6.0	6.9	7.8	4.8	3.0	6.6	4.8
Peru	6.2	7.2	5.1	8.3	9.2	8.6	7.2
Costa Rica	6.4	7.1	8.2	8.4	8.2	9.3	7.8
Paraguay	5.1	6.4	5.7	11.2	8.1	12.1	13.6
Guatemala	4.3	4.9	6.4	10.2	7.0	12.4	11.4
Mexico	3.5	4.4	9.8	9.6	7.6	9.5	11.9
Haiti	3.3	4.1	4.3	8.6	15.8	6.7	3.5
<u>Latin America</u>	<u>7.5</u>	<u>8.1</u>	<u>7.0</u>	<u>7.5</u>	<u>7.0</u>	<u>6.8</u>	<u>8.6</u>

Source: ECLA, on the basis of official data supplied by countries concerned.

a/ Including electricity, gas, water, and transport and communications.

b/ Calculations are based on values at 1970 prices.

Table 9

LATIN AMERICA: SHARE OF THE OTHER SERVICES SECTORS/ IN THE GENERATION  
OF THE GROSS DOMESTIC PRODUCT AND THE GROWTH RATE b/

Country	Share of the total gross domestic product		Annual growth rate of production				
	1965	1973	1965- 1970	1970- 1973	1971	1972	1973
Mexico	52.3	51.8	6.4	6.4	4.3	7.2	7.6
Panama	49.8	49.6	6.9	7.2	7.1	8.0	6.5
Uruguay	49.3	49.0	2.3	-0.8	-2.2	-1.1	0.9
Costa Rica	47.6	47.0	7.3	5.5	5.6	6.4	4.5
Brazil	46.9	46.7	7.4	12.0	10.6	11.4	14.4
Guatemala	48.7	46.7	5.6	5.3	4.1	5.8	6.1
Peru	41.1	43.9	4.2	6.9	7.2	7.1	6.5
Nicaragua	45.3	43.6	3.8	3.0	4.0	3.1	1.8
El Salvador	42.0	42.5	4.3	5.9	4.5	7.0	6.1
Venezuela	39.9	42.3	5.5	5.4	4.5	6.4	5.4
Bolivia	36.1	42.2	8.6	6.4	4.1	8.7	6.5
Chile	38.9	40.8	4.0	3.1	5.9	3.8	-0.4
Dominican Republic	44.4	38.5	5.8	9.2	5.0	14.0	8.8
Paraguay	37.6	38.3	5.3	4.4	4.3	4.2	4.6
Colombia	37.5	38.1	5.8	7.7	7.2	8.6	7.4
Argentina	39.2	37.9	3.2	3.9	3.8	4.7	3.1
Ecuador	35.4	36.3	6.5	5.5	7.6	5.9	3.1
Honduras	35.2	35.0	4.6	3.1	2.6	4.2	2.6
Haiti	32.3	32.6	1.4	5.8	7.9	3.1	6.4
<u>Latin America</u>	<u>44.7</u>	<u>45.1</u>	<u>5.7</u>	<u>7.3</u>	<u>6.2</u>	<u>7.7</u>	<u>8.1</u>

Source: ECLA, on the basis of official data supplied by countries concerned.

a/ Including: commerce, finance, ownership of dwellings, public administration, defense and other services.

b/ Calculations are based on values at 1970 prices.

/Naturally, the

Naturally, the differences are linked with the relative importance of the agricultural sector and the manufacturing industry in both groups. In the former group (with the most advanced economies) agriculture accounts for 11 per cent on average and manufacturing industry for around 26 per cent; in the other group agriculture accounts for 27 per cent of the total product and industry for 16.5 per cent.

In contrast, in the services and basic services sectors no major differences are to be seen. The "other services" account for 46 per cent in the first group and 42 per cent in the second.

There is no major contrast in construction either, but the contrast does exist in mining because of the importance of this activity in Chile, Peru and Venezuela. In the second group mining is only of importance (recent) in Ecuador.

As regards the historical growth of these sectors (as from 1960), it has been similar in the case of industry and the services while the growth of the agricultural product of the second group has shown an increase.

### 3. Available supplies of resources, and final demand

The annual rise of 6.8 per cent in real production of goods and services during the first three years of the current decade was accompanied by an even greater increase (7.4 per cent) in imports (also measured in terms of 1970 prices), so that the aggregate supply of resources expanded at a rate of 7.1 per cent during the years in question, that is, by 23 per cent over the whole of the three-year period.

As in the meantime external demand grew more slowly (at a rate of 4.8 per cent), it was possible to assign the lion's share of resources to investment, which increased at an annual rate of 10.5 per cent; while consumption, on the other hand, continued to expand at a steady rate of about 6.5 per cent per annum (see table 10).

Table 10

LATIN AMERICA: GLOBAL SUPPLY AND DEMAND OF GOODS AND SERVICES

	1965	1970	1973	Growth rate				
				1965- 1970	1970 1973	1971	1972	1973
<u>Total supply</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>6.1</u>	<u>7.1</u>	<u>6.5</u>	<u>7.1</u>	<u>7.7</u>
Gross domestic product	90.7	89.5	89.4	5.8	6.8	6.1	6.9	7.3
Imports	9.3	10.5	10.6	8.8	7.4	6.1	7.1	9.0
<u>Total demand</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>6.1</u>	<u>7.1</u>	<u>6.5</u>	<u>7.1</u>	<u>7.7</u>
Exports	11.1	10.4	9.7	4.7	4.8	1.2	5.7	7.7
<u>Domestic availability</u>	<u>88.9</u>	<u>89.6</u>	<u>90.3</u>	<u>6.3</u>	<u>7.4</u>	<u>7.1</u>	<u>7.3</u>	<u>7.7</u>
Gross investment	17.6	18.2	19.9	6.8	10.5	9.0	10.7	11.9
Consumption	71.3	71.4	70.4	6.2	6.5	6.6	6.4	6.6
Private	62.3	62.4	61.4	6.2	6.5	6.6	6.5	6.3
Government	9.0	9.0	8.9	6.1	7.0	7.0	5.5	8.5

/This overall

This overall picture of the sources and end uses of available supplies of goods and services during the early years of the 1970s differs in some respects from the position in the immediately preceding quinquennium (1965-1970). Although the growth rate of the product was stepped up between the two periods (from 5.8 to 6.8 per cent), that of imports (at constant prices) dropped from 3.8 to 7.4 per cent, despite the exceptionally high external purchasing power at the region's disposal in the years 1972 and 1973.<sup>2/</sup> However, this did not prevent the aggregate supply of resources from increasing faster than in the five-year period 1965-1970.

On the demand side, there was no variation in the rate of expansion of exports. But a radical change can be seen to have taken place between the two periods in internal supplies of goods and services, whose growth rate rose from 6.3 to 7.4 per cent. For purely illustrative purposes, this means that in Latin America average per capita supplies of goods and services for investment and consumption were 13 per cent higher in 1973 than in 1970 and 34 per cent higher than in 1965.

While the annual growth rates of consumption altered very little between the two periods compared (6.2 and 6.5 per cent), that of investment did show an appreciable difference. It rose from 6.8 per cent between 1965 and 1970 to 10.5 per cent in the following three-year period thus producing a significant change in the gross investment coefficient, which increased from 19.4 per cent in 1965 to 22.3 per cent in 1973 - a development which will be discussed in greater detail in the next section.

In addition to this change in the investment coefficient, the trend followed by the main economic variables brought about other modifications of the composition of supply and demand. For example, while the import coefficient climbed from 10.3 per cent in 1965 to 11.7 per cent in 1970 and 11.9 per cent in 1973, that of exports declined from 12.2 to 11.6 and 11 per cent in the same years. In the case of consumption, however, its relation to the gross domestic product did not alter greatly.

Within the period 1970-1973, more sweeping changes occurred in the evolution of each of these variables, especially at the individual-country level; this fact does much to account for the immense disparities

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<sup>2/</sup> See section D of the present chapter.



observable in the economic growth rates of the countries of the region. In the following pages an attempt will be made to shed some light on these differences.

### C. SAVING, CAPITAL FORMATION AND CONSUMPTION

#### 1. Saving and capital formation

##### (a) Saving

During the period 1971-1973, the resources allocated to domestic savings in Latin America represented on an average 19.7 per cent of gross national income and financed 91 per cent of gross domestic capital formation; the remaining 9 per cent was contributed by external savings, which corresponded to slightly over 2 per cent of gross income (see table 11).

For the region as a whole this implies a slight improvement in relation to the period 1965-1970, when the proportion of national income allocated to savings averaged 18.1 per cent. In the 1970s so far the savings quota has steadily increased, and in 1973 it reached 21.1 per cent.

This picture, favourable enough at the regional level, alters in the case of each individual country, since it is influenced by degrees and types of development, as well as by the particular combinations of circumstances which characterized the period 1971-1973.

If Latin America's average savings quota is taken as a benchmark, it will be seen that between 1971 and 1973 higher levels were maintained by only five countries: Venezuela, with a figure of approximately 30 per cent; Panama and Brazil, with average values of about 22 per cent; and Argentina and Mexico, where the corresponding proportions were 20.4 per cent and 19.5 per cent, respectively. At the opposite extreme, the lowest coefficients were recorded by Chile, with roughly 8 per cent, and Bolivia, Uruguay, El Salvador, Peru and Guatemala, with proportions ranging from 10 per cent to 11.6 per cent. The other seven countries show average coefficients varying between 12.6 per cent and a little over 19 per cent (see again table 11).

Table II.  
LATIN AMERICA: GROSS DOMESTIC SAVINGS COEFFICIENT  
IN TERMS OF GROSS NATIONAL INCOME

(Percentages)

Country	1961- 1970	1966- 1970	1971	1972	1973
Argentina	17.7	18.0	20.3	20.5	21.5
Bolivia	10.1	11.5	11.4	8.6	11.9
Brazil	19.4	18.7	20.1	21.6	24.0
Colombia	17.8	17.5	17.3	19.1	21.3
Costa Rica	14.8	14.5	12.6	12.6	13.7
Cuba	...	...	...	...	...
Chile	14.9	15.5	9.8	6.7	7.2
Ecuador	12.4	12.4	14.5	15.1	17.0
El Salvador	15.2	12.5	12.3	12.4	11.3
Guatemala	10.7	11.6	12.4	11.8	14.3
Haiti	1.4	2.4	3.5	4.2	2.6
Honduras	13.5	14.5	14.3	14.3	14.2
Mexico	19.0	19.1	19.0	19.7	20.0
Nicaragua	13.4	12.4	12.9	16.5	14.8
Panama	16.6	18.9	20.3	21.2	22.1
Paraguay	9.7	10.5	10.9	14.9	14.7
Peru	25.0	14.1	11.9	10.6	10.8
Dominican Republic	9.7	9.2	12.7	17.6	16.8
Uruguay	10.7	10.1	9.8	11.5	11.0
Venezuela	27.7	26.1	26.8	28.1	32.7
<u>Total</u>	<u>18.3</u>	<u>18.3</u>	<u>18.5</u>	<u>19.5</u>	<u>21.1</u>

/If the

If the countries are considered individually, it will be seen that within a moderate range of variations between the end of the 1960s and the year 1973, in eleven out of the eighteen cases for which comparable statistical data are available the proportion of income allocated to savings increased; in five, it diminished; and in two it underwent no change whatever. Of the countries that raised their rate of savings, six at least (Argentina, Brazil, Colombia, Ecuador, Panama and Venezuela) succeeded in maintaining a steady upward trend throughout the period under study. Among the countries in which the savings coefficient decreased, the most marked reductions were those observable in Chile (from 15.5 in 1965 to 7.2 per cent in 1973) and in Peru, although the latter was not so sharp (from 14.1 per cent in the first of the years mentioned to 10.8 per cent in the second).

It is of interest to examine the relations between investment expenditure, the domestic savings coefficient, and net external financing. Table 12 shows the domestic savings/total investment coefficients for 19 Latin American countries, with reference to the years 1966-1970 and 1971-1973.

An important inference to be drawn from the figures is that in five countries - Argentina, Brazil, Mexico, Peru and Venezuela - over the period 1971-1973 the average contribution made by domestic resources lay between 85 per cent and 100 per cent of total investment. In two others - Colombia and Uruguay - a similar proportion was attained in the years 1972 and 1973. In some countries, such as Venezuela (in 1971 and 1973), Argentina (in 1973) and Uruguay (in 1972 and 1973), the outflow of resources substantially exceeded the inflows received by those economies from abroad.

The countries that showed the highest indexes for the net external financing/investment ratio between 1971 and 1973 were Costa Rica with 45 per cent; Chile, Bolivia, Ecuador and Haiti, with over 30 per cent; and the Dominican Republic, with 29 per cent.

Table 12

LATIN AMERICA: GROSS DOMESTIC SAVING COEFFICIENT  
IN TERMS OF GROSS DOMESTIC INVESTMENT

(Percentages)

Country	1966- 1970	1971	1972	1973
Argentina	99.7	93.0	96.4	110.6
Bolivia	69.8	72.5	64.9	75.9
Brazil	94.8	88.2	89.4	93.4
Colombia	82.4	74.4	88.8	97.6
Costa Rica	65.6	50.8	56.7	61.0
Cuba				
Chile	93.2	78.4	54.8	65.8
Ecuador	73.8	58.3	69.8	84.8
El Salvador	83.8	85.7	106.6	79.7
Guatemala	87.2	86.5	93.8	102.2
Haiti	64.6	76.1	84.1	50.6
Honduras	78.5	81.8	92.2	78.7
Mexico	88.9	88.8	89.6	87.1
Nicaragua	64.8	72.2	94.6	81.4
Panama	79.1	75.3	71.8	71.0
Paraguay	64.3	72.6	91.6	87.2
Peru	89.0	91.2	87.1	85.5
Dominican Republic	56.5	63.2	88.3	80.9
Uruguay	97.6	77.9	102.6	105.2
Venezuela	97.2	101.0	97.0	108.5
<u>Total</u>	<u>92.0</u>	<u>87.9</u>	<u>89.7</u>	<u>94.5</u>

/(b) Investment

(b) Investment

Another of the salient features of Latin America's economic development in recent years is the rise in the rate of investment in relation to the gross domestic product. This characteristic, which had already begun to make itself apparent in the late 1960s, has become more marked during the 1970s (see figure 3). While the region's aggregate product increased between 1965 and 1970 at an average annual rate of 5.8 per cent, total investment did so at a rate of 6.9 per cent; in the period 1970-1973 the growth rate of the former rose to 6.8 per cent and that of the latter to 10.5 per cent. In consequence of these trends, gross capital formation in the region as a whole steadily expanded, and the investment coefficient - defined as the percentage relationship between gross investment and total product - increased significantly from 19.4 per cent in 1965 to 20.7 per cent in 1971 and to 22.3 per cent in 1973.

Like other trends recorded, this tendency is not shared in equal measure by the various Latin American countries.

Table 13 presents data indicative of this process in 1965-1973 and showing the contrasts at the national level. With regard to the growth rate of total investment - which for the region as a whole was speeded up between the second half of the 1960s and the years 1971, 1972 and 1973 - only in Brazil, Haiti, Paraguay and Venezuela, and up to a point in Nicaragua, did it increase steadily between the periods under study. Elsewhere, as in Colombia, Ecuador, El Salvador, Guatemala and Peru, its rising trend maintained until 1971, suffered an interruption in 1972, and recovered again in 1973. Furthermore, while in the first two countries in this group the average rate of increase of total investment was lower in 1971-1973 than in 1965-1970, this trend was reversed in the other three. In Argentina, although investment was more dynamic up to 1971, it lost momentum in 1972 and contracted in absolute terms in 1973.

Figure 3

LATIN AMERICA : TREND OF THE GLOBAL PRODUCT AND TOTAL GROSS INVESTMENT

(Indexes : 1970 = 100)

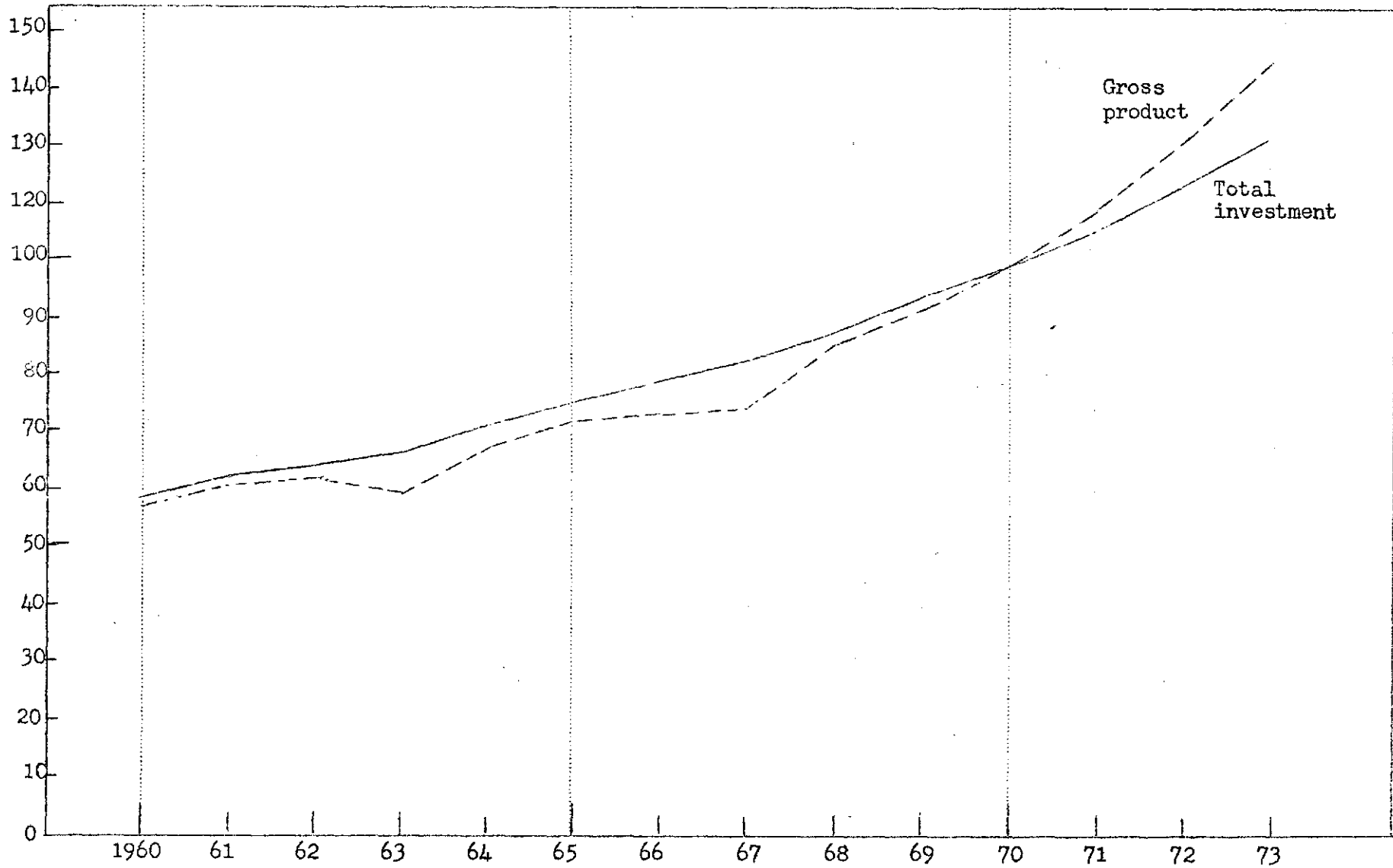


Table 13

LATIN AMERICA: TREND OF GROSS DOMESTIC INVESTMENT

Country	Gross investment coefficient (in terms of the gross domestic product)				Growth rate of gross investment			
	1965	1971	1972	1973	1965- 1970	1971	1972	1973
Argentina	17.7	20.8	21.2	19.8	6.6	8.9	5.6	-2.4
Bolivia	16.4	14.9	12.5	15.0	5.3	-0.7	-11.2	27.6
Brazil	21.1	22.5	24.0	25.8	7.5	19.0	17.7	20.0
Colombia	19.2	22.4	20.8	21.3	8.1	9.7	-0.9	10.0
Costa Rica	25.7	23.7	20.6	21.0	5.8	1.5	-8.5	5.8
Cuba								
Chile	16.6	11.9	11.7	10.6	4.5	-24.2	-	-12.6
Ecuador	12.9	24.1	21.0	19.5	17.7	18.0	-4.5	5.0
El Salvador	16.7	14.2	11.5	14.1	-0.3	11.9	-15.9	29.5
Guatemala	13.2	14.0	12.3	13.7	5.2	15.5	-6.7	19.9
Haiti	6.2	7.1	7.3	7.7	4.3	7.9	6.9	11.3
Honduras	15.5	16.9	14.9	17.3	12.3	-18.5	-8.4	19.7
Mexico	20.2	20.9	21.6	22.3	8.3	0.5	11.0	11.2
Nicaragua	19.5	16.9	16.7	17.6	2.3	3.1	2.5	6.2
Panama	17.8	27.6	29.1	30.0	16.5	14.0	12.2	8.9
Paraguay	14.9	14.8	16.2	17.2	4.4	4.8	15.4	12.6
Peru	17.8	13.8	12.6	13.3	-2.5	11.5	-3.8	11.0
Dominican Republic	9.2	19.8	19.8	20.7	24.0	15.4	12.4	14.0
Uruguay	9.1	12.4	11.1	10.7	7.2	7.7	-12.0	-3.0
Venezuela	25.5	26.0	29.1	30.9	3.1	12.2	18.2	15.2
<u>Total</u>	<u>19.4</u>	<u>20.7</u>	<u>21.4</u>	<u>22.3</u>	<u>6.9</u>	<u>9.0</u>	<u>10.7</u>	<u>11.2</u>

/Between 1971

Between 1971 and 1973, Bolivia, Costa Rica, Chile, Honduras and Uruguay showed trends diagonally opposed to that observable in Latin America as a whole. In Panama and the Dominican Republic the growth rate of investment slackened in the 1970s, but even so was maintained above the regional levels, Mexico, after a spell of atony in 1971, stepped up its investment expenditure again at a rate which in 1972 and 1973 outstripped the average for 1965-1970.

There are also wide disparities in respect of the investment quota and its evolution (see again table 13). In 1971-1973, in five out of the nineteen countries for which data are available (Brazil, Costa Rica, Mexico, Panama and Venezuela) the figure reached was above the average for Latin America (21.5 per cent). The corresponding values for Argentina, Colombia, Ecuador and the Dominican Republic were also very close to that level. In four others (Bolivia, Honduras, Nicaragua and Paraguay), the proportions of investment expenditure ranged from 14 per cent to 17.1 per cent; and in the other six (Haiti, Chile, El Salvador, Guatemala, Peru and Uruguay) they varied between 7.4 per cent and 13.3 per cent.

A comparison of the situation in 1971-1973 with that prevailing early in the second half of the 1960s reveals definite improvements with respect to the number of countries included in similar intervals. In 1965, only six countries recorded figures higher than 19 per cent (the average for Latin America in that year was 19.4 per cent); in eight the corresponding figures lay between 14.9 per cent and 17.8 per cent; and in the remaining five they ranged from 6.2 per cent to 13.2 per cent. In any event, the countries comprised in the various groups were not always the same in the two periods.

The rising trend of the investment coefficient between 1965 and 1971-1973 was sufficiently widespread to be considered of regional scope, since it was common to twelve countries, and in this group in 1973 88 per cent of the region's product was generated, at least 85 per cent of its population lived, and rather more than 90 per cent of its investment expenditure was effected.



Certain changes came about in the composition of investment as regards its institutional channelling and its distribution by type of goods (see table 14). Between 1970 and 1972, the average share of public investment in Latin America as a whole rose from 35 per cent to 37 per cent, although it did not grow as fast as in the second half of the 1960s. Only three countries (Haiti, Honduras and Mexico) made any striking departure from this overall trend; and a fourth (Argentina) showed a decrease in the proportion estimated for 1973. In some instances the share of public investment increased more rapidly than in the region as a whole, reaching, in the last year for which data are available, about 40 per cent in Nicaragua, Panama and the Dominican Republic; and approximately 35 per cent in Uruguay and Venezuela. In Chile, the proportion represented by public investment, which is the highest in the region, was approaching 64 per cent by 1972.

In the distribution of investment by type of goods too, significant changes took place at the Latin American level. Between 1965 and 1971-1973 the proportion assigned to construction projects was reduced, with a complementary increase in allocations to purchases of machinery and equipment. In this shift of emphasis, however, decisive weight was carried by what occurred in Argentina and Brazil. Other countries in which trends were much the same as in the region as a whole were Costa Rica, Chile, Ecuador, Guatemala, Haiti and the Dominican Republic. In the remainder, the position was reversed: an increasing share of investment was assigned to construction, and there was a corresponding decrease in allocations to purchases of machinery and equipment.

Table 14

LATIN AMERICA: PUBLIC INVESTMENT AND INVESTMENT IN CONSTRUCTION

(As a percentage of gross fixed investment)

Country	Public investment				Investment in construction			
	1969- 1970	1971	1972	1973	1965	1971	1972	1973
Argentina	29.6	31.5	32.8	27.8	52.3	53.3	52.2	49.9
Bolivia	54.3	53.6	54.1	...	36.4	45.1	53.3	44.7
Brazil	37.4	39.3	38.7	...	54.8	40.0	37.6	36.1
Colombia	30.6	25.1	30.6	...	57.6	59.6	59.3	59.9
Costa Rica	19.2	21.9	21.5	...	50.4	41.7	42.8	41.8
Cuba				...				
Chile	54.4	64.4	63.9	...	62.3	60.1	49.7	46.4
Ecuador	29.3	27.6	24.5	33.7	65.6	49.7	59.2	61.5
El Salvador	23.7	26.6	27.4	...	38.1	44.3	48.9	47.1
Guatemala	19.0	22.1	24.6	25.1	39.0	27.4	31.5	34.2
Haiti	41.1	40.4	34.3	...	48.3	43.8	45.7	46.5
Honduras	34.7	27.8	24.8	...	55.7	57.1	68.3	65.4
Mexico	38.6	36.5	36.4	...	52.0	54.3	56.7	58.9
Nicaragua	23.5	32.7	33.9	40.5	35.4	40.3	44.2	51.0
Panama	24.0	22.5	39.9	...	52.1	59.3	58.6	58.5
Paraguay	31.8	27.4	32.0	...	43.7	53.6	51.0	49.0
Peru	36.8	38.2	41.6	...	45.2	48.9	53.1	53.6
Dominican Republic	34.3	37.9	39.5	...	70.9	59.8	65.0	66.8
Uruguay	25.1	29.0	35.5	...	66.1	66.1	79.7	81.4
Venezuela	27.9	32.0	34.3	34.5	56.3	58.8	59.5	64.8
<u>Latin America (excl. English-speaking countries of the Caribbean)</u>	<u>35.0</u>	<u>36.1</u>	<u>36.8</u>	...	<u>53.7</u>	<u>49.6</u>	<u>48.9</u>	<u>48.5</u>

## 2. Consumption

Since total consumption in Latin America increased at a remarkably steady rate (6.5 per cent), which remained practically unchanged throughout the whole of the three-year period 1970-1973, and which, moreover, was slightly higher than in the preceding quinquennium, it is easy to be misled into a fallacious generalization. Out of the nineteen countries taken into consideration, only four in fact exceeded the average per capita growth rate for the region (3.5 per cent); in six the corresponding figure lay between 2.4 and 3.1 per cent; in another four it varied from 1.4 to 1.9 per cent; and in the remaining three it ranged from -1.5 to 0.7 per cent.

The distribution of the countries by growth rates of consumption is similar to that worked out for the per capita product (see table 2), owing to the fact that the high percentage relationship between total consumption and the gross product (about 80 per cent) does not vary much from one country to another.

In addition to the great differences noted in the rates of increase of per capita consumption, there are also very wide disparities between its absolute levels. The range extends from 20 per cent of the region's average consumption to 86 per cent above it. Only six countries exceed this average figure for the region and three others closely approach it (see table 15).

General government consumption represented less than 13 per cent of total consumption, and its growth, which had resembled that of private consumption in the second half of the 1960s, gained greater dynamic impetus in 1970-1973, when its annual rate of increase was 7 per cent.

Table 15

LATIN AMERICA: RELATIVE LEVEL OF PER CAPITA CONSUMPTION AND  
GROWTH OF TOTAL CONSUMPTION

	Per capita consumption 1973	Growth rate				
		1965 1970	1970- 1973	1971	1972	1973
<u>Countries above the regional average:</u>						
Argentina	186	3.6	4.5	4.2	2.8	5.8
Chile	146	5.1	5.6	13.5	5.9	-2.0
Mexico	115	7.2	5.2	2.8	6.6	6.8
Panama	111	5.8	5.7	8.0	7.3	1.8
Uruguay	146	3.2	-0.2	-1.4	-2.5	3.8
Venezuela	140	5.0	5.3	5.9	5.8	4.2
<u>Countries below the regional average:</u>						
Brazil	92	8.1	9.5	10.3	9.3	9.0
Costa Rica	86	6.5	3.3	6.3	1.6	3.6
Peru	84	4.7	7.3	8.6	6.0	7.3
Ecuador	61	5.3	8.8	7.6	7.9	11.1
Guatemala	71	5.6	5.9	5.4	7.0	5.2
Nicaragua	75	5.4	3.7	4.1	1.0	6.1
Dominican Republic	71	7.4	8.5	8.1	7.2	10.0
Bolivia	38	5.4	5.2	3.5	8.6	3.7
Colombia	56	6.1	4.8	4.4	4.6	5.5
El Salvador	54	5.2	5.2	5.6	3.9	6.2
Haiti	20	1.7	5.0	4.1	4.9	6.0
Honduras	17	4.8	3.4	4.1	3.3	2.9
Paraguay	51	6.4	3.5	6.1	1.1	9.4
<u>Latin America</u>	<u>100</u>	<u>6.2</u>	<u>6.5</u>	<u>6.6</u>	<u>6.4</u>	<u>6.6</u>

#### D. PRICE MOVEMENTS AND THE PROBLEM OF INFLATION

As was pointed out to begin with, the recrudescence or emergence of inflationary pressures was the counterpart of the dynamism of economic growth, especially in the years 1973 and 1974.

In the first place, it is worthwhile to look at some of the most important data, as presented in table 16.

As can be seen, in 1972 bigger internal price increases began to be noted in several countries, even in some where relative stability had traditionally been the rule; this trend sharpened rapidly in 1973, and spread to almost all the countries of the region.

A glance at table 16 will show that in four of the Latin American countries rates of inflation rose very high in 1972 and 1973, reaching 508 per cent in Chile by the latter year. In Argentina prices increased in 1973 at a rate of 43.8 per cent; yet this rate, rapid as it was, represented a reduction of the preceding year's. Much the same thing occurred, although at higher levels still, in the case of Uruguay.

In six other countries in which the pace of inflation was more moderate, increases were recorded which, although sizable, took place more slowly, at rates varying between 20 and 30 per cent in 1973. The exception was Brazil, where in 1972 and 1973 the rate of inflation was lower than in 1971.

The development of most significance concerned the remaining countries, in many of which domestic prices had remained relatively stable since the early 1960s. But in 1973 they too were drawn into the inflationary process, several of them with relatively high rates ranging from 15 to 20 per cent.

Incomplete data for 1974 indicate that although the rate of inflation did not exceed the high levels recorded in the preceding year, it remained rapid. Once again the exception was Brazil, where upward pressures were so greatly intensified in 1974 that by the month of November a rate of inflation of over 30 per cent had been reached, whereas in 1972 and 1973 the corresponding rates had been 14 per cent and 13.5 per cent, respectively.

Table 16

LATIN AMERICA: VARIATION IN THE CONSUMER PRICE INDEX

(Percentage variation)

	December to December			1974 (compared with December 1973)	
	1971	1972	1973	August	Last month available
<u>High inflation</u>					
Argentina	39.1	64.2	113.8	11.3	40.1 <sup>a/</sup>
Bolivia	3.3	23.6	34.9	38.2 <sup>b/</sup>	...
Chile	22.1	163.4	508.1	203.7	346.6 <sup>c/</sup>
Uruguay	35.6	94.8	177.5	50.7	73.5 <sup>d/</sup>
<u>Moderate inflation</u>					
Barbados	10.1	10.4	26.0	28.8	30.0 <sup>e/</sup>
Brazil	18.1	24.0	13.5	25.5	31.6 <sup>c/</sup>
Colombia	14.1	16.4	21.1	16.3	...
Ecuador	6.8	6.9	20.5	13.0	17.8 <sup>e/</sup>
Jamaica	5.2	9.3	29.6	14.6	...
Peru	7.7	4.3	19.7	13.9	...
<u>Relatively stable rate of inflation in 1972 and 1973</u>					
El Salvador	-0.6	5.2	7.9	13.1 <sup>b/</sup>	...
Guatemala	3.0	1.1	17.5	11.0	27.2 <sup>e/</sup>
Guyana	1.4	7.1	15.2	8.1	...
Haiti	13.3	7.3	19.7	11.4 <sup>b/</sup>	...
Honduras	1.5	6.8	5.0	12.7	12.0 <sup>e/</sup>
Mexico	-0.8	5.2	20.2	11.9	...
Panama	1.0	6.8	9.6	14.5 <sup>b/</sup>	...
Paraguay	6.3	9.5	14.2	20.1	17.8 <sup>e/</sup>
Dominican Republic	10.6	8.0	17.3	4.0	...
Trinidad and Tobago	5.0	8.0	24.4	11.5	14.1 <sup>e/</sup>
Venezuela	3.0	3.5	5.7	7.9	9.0 <sup>e/</sup>
Costa Rica	1.9	6.5	16.0	...	...

Source: Financial Statistics, Vol. XXVII, Numbers 9 and 11; Monthly Bulletin of Statistics, Vol. XXVIII, Numbers 7 and 10; Argentina: Instituto Nacional de Estadísticas y Censos; Brazil: Instituto Brasileiro de Economia; Chile: Instituto Nacional de Estadísticas; Peru: Boletines del Banco Central de la Reserva; Uruguay: Dirección General de Estadística y Censos.

- a/ December.
- b/ July.
- c/ November.
- d/ October.
- e/ September.

### Cases and contrasts

Although there were great differences between individual countries, with respect both to the intensity of the process and to the motive forces behind it, there can be no doubt that the salient features of the inflationary situation were its regional scope and the paramount influence of what is currently termed "imported inflation".

In the past, although inflation was sometimes considered to be a characteristic of Latin American development, the fact is that it was concentrated in a well-defined group of countries, which were joined from time to time by others whose monetary disequilibrium was the product of temporary circumstances of various kinds.

In recent years, almost without exception, the external factor has allied all individual experiences, although of course considerable contrasts between rates and sequences can always be distinguished. In some cases, the process gathered speed between 1972 and 1973; in others it did not do so until 1974. Even in cases like that of Uruguay, where the upward movement of prices did not gain momentum, this was because such very high rates had been attained in 1972.

It is common knowledge that rising import prices are the most visible and often the most significant agent of "imported inflation". As is shown elsewhere in the present study (see section E), they increased by 4.2 per cent, 5.8 per cent and 18.2 per cent in the years 1971-1972 and 1973. The overall expansion masks considerable disparities, due in the main to the composition of imports. Obvious as it may be, the countries worst affected were those most dependent upon the purchase of such goods and services as were subject to the most marked price increases: for example, agricultural commodities and petroleum.

A second important way to inflation is opened up by increases in the prices of export products which are also in demand on the home market. Although in some countries, by one means or another, attempts were made to keep price changes affecting the part sold abroad separate or differentiated from those applicable to the part retained for domestic use, it is clear that such measures could not completely nullify the interaction between the two flows. What is more, in some cases where

/policy made

policy made more strenuous efforts in this direction, undesirable reactions were not lacking, such as the growth of contraband to adjacent countries, or the displacement of some crops by other, according to the degree in which they were affected by this line of action.

A third aspect of the inflationary process relates to its effects on the balance of payments and, more specifically, on the monetary balance of the Latin American countries. Paradoxically enough, from this standpoint the inflationary (or potentially inflationary) repercussions particularly affect those economies whose foreign trade situation is most favourable. A typical case in point is afforded by the countries benefiting from the rise in petroleum prices, like Venezuela and Ecuador. As it is impossible, especially over the short term, to convert the cumulative trade surpluses into imports, the monetary system is faced with the complex problem of counteracting the expansionist effect of increases in international reserves.

Conversely, in other instances the deterioration of the balance of payments resulting from the rise in import prices led to a reduction of the reserves in question, and thus created a mechanism for the restriction of the money supply, which, nevertheless, was subjected to the expansionist pressures of private and public requirements by the operation of the same factor, i.e., the upward trend of import prices.

The various countries could be grouped according to the incidence or existence of the three situations described, which are sometimes combined in differing proportions, particularly where the first two are concerned. Some economies - for example, those of Chile, Uruguay and several of the Central American countries - had to cope with the dearth of imports in 1973-1974 (Chile more than Uruguay, because of its import structure), without enjoying the effects of reaping the profits of a similar or higher rise in the value of their exports. In other countries, for example, Brazil, Argentina, Colombia and Bolivia both influences operated in conjunction, with better effects on growth,

/but creating



but creating a more complex picture from the angle of inflation, because of the close correlation between the internal and external prices of their export products.

As has already been pointed out, the economies benefiting by the development of petroleum form a group apart. Although they too are affected by the rise in import prices, it is equally true that they have to deal with a problem sui generis in Latin America, namely, the management, use and absorption of their foreign exchange surpluses.

The emphasis placed on external factors, justifiable in the conjuncture under discussion, by no means implies that domestic factors - whether structural or at the level of mechanisms for the propagation of inflation - became inoperative. What actually occurred was an appreciable change in the weight they carried. Moreover, in one or two isolated cases, like that of Chile, the exceptionally high rates of inflation reached in the last two years of the period were primarily imputable to internal circumstances, which are too well-known to need recapitulating in the context of this general approach.

#### E. THE EXTERNAL SECTOR AND ECONOMIC GROWTH

Major changes took place in Latin America's foreign trade relations. In different degrees and different ways, according to the country concerned, they exerted a decisive influence on the economic results under review.

A clear indicator of the changes referred to is to be found in the expansion of the region's foreign trade between 1970 and 1974. Exports of goods increased from 14,880 million dollars to 44,053 million, and imports from 14,040 million to 40,220 million.

The biggest increases occurred in 1974, when the value of exports rose by 67 per cent and that of imports by 71 per cent (the corresponding figures for the preceding year were 44 and 31 per cent respectively). In the case of exports, the upswing is mainly attributable to the appreciable increases in the prices of many of the region's basic products, whose unit value index was thus raised

by 35 per cent in 1973 and 65 per cent in 1974. The increases in the volumes of exports (quantum indexes) were much lower: 7.6 per cent in 1973 and a negative rate (-0.2 per cent) in 1974.

As a result of such favourable foreign trade trends, the trade-balance deficit of a little over 200 million shown in 1971 was first reduced and then converted into a surplus of 2,827 million dollars in 1973 and 3,833 million in 1974 (in 1966-1970 the negative balance in question had averaged 1,300 million dollars). It thus became possible to reduce the external deficit on current account - which had risen to 4,580 million dollars in 1972, or double the average deficit for 1966-1970 - by about 1,175 million dollars. However, the deficit rose again in 1974 to 7,440 million dollars.

The net inflow of autonomous capital also expanded rapidly in the past two or three years (especially in 1972, because of an increase of 2,100 million dollars in Brazil). From an average level of 3,200 million in 1966-1970, it soared to 8,100 million dollars in 1973. This phenomenon, in conjunction with the relative improvement on current account, meant that the net international reserves held by the region in 1970 rose by 7,500 million dollars. (In 1973 alone the increase amounted to 4,200 million dollars.)

The difference between the exceptional boom in export prices in 1973 and 1974 and the rise in import prices (which increased by 18 and 40 per cent) also implied a substantial improvement of 43 per cent in the terms of trade between 1970 and 1974 (14 per cent and 17 per cent in 1973 and 1974). If the variation in the export quantum is also taken into account, the increase in the purchasing power of exports amounted to 18 per cent in 1973 and 1974 (in 1971 it had decreased).

Thanks to these improvements, available supplies of imported consumer and capital goods increased, which helped to step up economic growth in these years and which will undoubtedly project its influence into the immediate future.

/Unfortunately, the

Unfortunately, the individual countries obtained very unequal shares in the benefits afforded by the favourable export price situation, mainly because of the marked differences in the price increases applying to different products. In the last analysis, the benefits gained by any given country depended upon the products that constituted its staple exports, and upon whether they were or were not among those which attained the highest price levels on the world market.

Another requisite was that the average prices received for a country's exports should be higher than those paid for its imports. There were also countries which were unable to take advantage of the favourable price situation because their normal sales volumes contracted, with the result that the purchasing power of exports decreased. There were others, in contrast, where this situation was reversed: they obtained greater purchasing power simply and solely by expanding their volume of export (see table 17).

Between 1970 and 1974, for example, the purchasing power of exports trebled in Ecuador and Venezuela (since petroleum began to be exported on a large scale in Ecuador, and in addition hydrocarbon prices were high); in two countries (Bolivia and the Dominican Republic) it increased at a rate of somewhere between 14 and 16 per cent per annum; in six other countries, the annual rate ranged from 6 to 8 per cent; in three others again purchasing power increased yearly by about 5 per cent; in five countries the increase ranged from 1 to 3.3 per cent; and in five it dropped (see again table 17).

The relation between trends in purchasing power and the evolution of the product is not very clear in the case of several countries and over the short term. For a longer period, however (1960-1975), a high degree of correlation can be noted ( $r = 0.978$ ) between the development of Latin America's product and that of the purchasing power of exports.

Table 17

LATIN AMERICA: TREND OF THE PURCHASING POWER OF EXPORTS  
AND OF NET FOREIGN EXCHANGE RESERVES

Country	Purchasing power of exports (percentage annual growth rate)					Increase in net foreign exchange reserves 1971-1973 (millions of dollars)
	1970- 1974	1971	1972	1973	1974	
Venezuela	33.7	14.7	7.6	22.8	111.5	1 316.6
Ecuador	32.0	0.5	24.2	48.8	63.6	164.2
Bolivia	15.9	-7.6	6.9	18.1	61.3	3.7
Dominican Republic	14.3	3.8	34.0	7.1	8.3	17.8
Trinidad and Tobago	7.5	-1.4	5.5	19.3	7.6	-5.4
Brazil	7.4	1.8	25.1	31.7	-20.5	5 751.2
Paraguay	7.3	-4.0	11.6	24.2	-0.4	31.8
Mexico	6.7	4.1	13.8	5.6	3.7	494.2
Colombia	6.6	-5.4	15.2	14.7	3.4	320.7
Argentina	6.4	13.2	11.2	1.6	-5.7	21.3
Nicaragua	5.3	-3.3	24.6	10.8	-7.7	43.8
El Salvador	5.0	3.3	20.6	0.9	-3.2	3.8
Barbados	4.8	13.2	11.2	1.6	-5.7	8.9
Guyana	3.3	7.0	-4.8	-17.2	35.1	-17.3
Guatemala	2.8	-5.6	5.7	12.4	-0.3	117.4
Costa Rica	2.6	-1.6	13.4	4.3	-4.7	15.3
Haiti	1.4	18.0	-7.0	0.0	-3.0	16.4
Jamaica	1.0	1.5	12.3	-6.1	-3.6	-59.5
Chile	-1.2	-14.8	-14.8	19.8	9.8	-819.0
Panama	-1.6	7.1	4.1	4.5	-12.1	6.6
Peru	-2.2	-13.7	-0.6	1.2	5.2	81.8
Honduras	-2.3	5.3	0.2	4.7	-17.7	18.6
Uruguay	-5.8	-17.8	17.6	9.9	-25.9	47.1
<u>Latin America</u>	<u>11.6</u>	<u>0.8</u>	<u>10.5</u>	<u>18.2</u>	<u>17.8</u>	<u>7 520.7</u>

### Chapter III

#### AGRICULTURAL DEVELOPMENT

##### A. INTRODUCTION

###### 1. The agricultural sector in the International Development Strategy

The IDS <sup>1/</sup> lays down a set of objectives for the agricultural sector in developing countries which may be condensed into two major groups.

(a) Objectives connected with the growth of agricultural output, its diversification and the spread of its effects at the social level.

So that developing countries can pursue their objective of expanding the gross product at an average annual rate of 6 per cent, the IDS has set a minimum target of 4 per cent for the annual average growth of agricultural output for the entire decade, as it has done in industry and external trade. It is to be noted that the FAO perspective studies for Latin America estimate that it is possible to achieve annual growth rates for agricultural output of around 5 per cent, with higher exports to the rest of the world than was traditionally the case, in view of the region's production potential.<sup>2/</sup>

As was said before, the fulfilment of this quantitative objective should be accompanied by other requirements which make it possible to achieve the integral human development which is given as the ultimate aim of the IDS and which is summed up in the reduction of social and regional disparities, increasing and productive job opportunities for the working population, the improvement of the level of living and basic services and the safeguarding of the environment.

Lines of action are also specified for the agricultural sector of developing countries tending:

- <sup>1/</sup> Contained in United Nations General Assembly resolution 2626 (XXV).
- <sup>2/</sup> See: FAO, SIECA, Perspectives for Agricultural Development and Integration in Central America. Guatemala, May 1971; and FAO, Perspective Study of Agricultural Development for Latin America.

- To secure a more adequate food supply from both the quantitative and qualitative viewpoint, to meet their nutritional and industrial requirements, to expand employment and to increase export earnings. It should be emphasized here that the greatest possible importance should be given to rural employment as a part of the strategy on employment.
- To meet their nutritional requirements for which purpose they will adopt policies consistent with their agricultural and health programmes, to develop the production of high-protein foods and to make wider use of new forms of edible protein.
- To develop full potential of their natural resources and their more rational use.
- To reform land-tenure systems and make other institutional changes for promoting both social justice and farm efficiency, and encourage the establishment of co-operatives for the organization of many agricultural activities.
- To modernize and improve the efficiency of agricultural activities by providing adequate irrigation, fertilizers, improved varieties of seeds and suitable agricultural implements and by expanding the infrastructure of marketing and storage facilities and the network of agricultural extension services.

(b) Objectives of international trade in agricultural products and primary commodities in general:

- To promote international agreements aimed at regulating trade in commodities mentioned in the UNCTAD resolutions, and to secure stable, remunerative and equitable prices with a view to increasing the foreign exchange earnings from exports of primary products from the developing countries.
- That the developed countries will not increase present barriers to imports of primary products of export interest to developing countries, and will accord priority to reducing or eliminating such barriers.

/- To minimize

- To minimize possible adverse effects of disposals of production surpluses or strategic reserves, including those of minerals, and to improve the production, marketing and use of natural products facing competition from synthetics.

The basic proposals of the IDS were based on experience acquired during the First United Nations Development Decade and also on the favourable prospects of the growth of output in the years to come. The Second Decade thus opened in an atmosphere of optimism and confidence created around the spread of technical advances (varieties of high-yield cereals, fertilizers, etc.) and other elements of what is known as the "green revolution" and its potential results.<sup>3/</sup> Between 1967 and 1970 good harvests in some developing regions helped to foster this atmosphere.

In 1972 a brusque change took place in the international agricultural economy, the results of which for the next two years were more marked differentiations between countries exporting and importing these products and between the various activities which go to make up the agricultural sector in each country, according to how much the countries benefited from or were adversely affected by this. Shortages appeared in the world markets for cereals, sugar and other agricultural products, caused among other things by the reduction of the area under wheat and other cereals in the United States and Canada, poor harvests owing to adverse weather conditions in major producer areas and the advance payment purchase policies followed by some countries both for strategic reasons and to safeguard against the effects of inflation. This caused a rapid decline in existing stocks and sharp increases in the prices of these products, which caused large-scale increases in the export earnings of the producer countries, while the developing countries which are net importers of these products suffered serious effects in their foreign exchange reserves and their balance of payments or a significant deterioration in their domestic economies owing to inadequate supplies of essential goods.

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<sup>3/</sup> See FAO, The State of Food and Agriculture, Rome, 1970.

In 1973 and 1974 the situation of the international agricultural markets proved to be even more complex, mainly as a result of the different reactions of the countries and the interrelation with other economic phenomena going to make up the conjuncture which the developed countries were experiencing.

In the first place, in answer to the generally high international prices, the developing countries have made great efforts with their agricultural output, so as to increase exports and reduce the burden which imports of food place on their economies. This has to a large extent reduced the increase in the prices of some agricultural commodities.

In the second place, the progress made in the process of European economic integration with the entry of Great Britain and other countries to the EEC, the highly restrictive agricultural policy followed by these countries and the very adverse effects produced by the present energy situation in their balance of payments, has considerably limited one of the main markets for several developing countries which export agricultural products.

Lastly, the simultaneous process of inflation and stagnation which the economies of the developed countries are undergoing at the present time has adverse repercussions on the agriculture of the developing countries, at least in two aspects. On the one hand it causes price increases in the agricultural inputs (fertilizers, implements, etc.) which these countries import, and on the other hand it restricts international demand for raw materials of agricultural origin.

The consequences of this situation are very varied, uncertain and changing, and make future events, at least for the developing countries as a whole, relatively hard to forecast. What is definite is that the benefits for several developing countries resulting from the high international prices are proving to be relative both because of the rise in prices of their imports and because of restrictions in the markets in which they place their exports.

/The United



The United Nations resolutions on the new international economic order and the plan of action have placed their main emphasis on measures directed at mitigating the adverse repercussions which may result for the developing countries, especially as regards basic products and food.

To begin with, it is proposed to defend earnings from exports by developing countries by encouraging producers' associations - including joint marketing arrangements - and also agreements aimed at a just and equitable relationship between the prices of these countries' exports and the prices of their imports when these are from developed countries.

Secondly, in connexion with food, it is suggested that use should be made of an immense land potential existing in several developing countries, which has not been adequately exploited for lack of resources. Mention is also made of the urgent need to take active measures to stop the encroachment of the desert and other phenomena which undermine agricultural output capacity, and to safeguard and rebuild natural and food resources, especially those coming from the ocean. As far as increasing food production is concerned it is pointed out that more favourable conditions are required for imports of agricultural inputs (fertilizers, etc.) by the developing countries together with the reinforcement of existing storage capacity.

Lastly, the criterion is laid down that in food matters, the interests of developing countries which need to expand their export markets as well as those of developing countries which are net importers of such commodities but cannot pay high prices because it places too heavy a burden on their foreign exchange reserves and their balance of payments, should be taken into account. A special programme is being set up for these countries with emergency measures to alleviate the difficulties they are undergoing at the present time.

## 2. The agricultural sector during the period 1970-1974

The present appraisal began by situating the agricultural sector of the Latin American countries in the setting of their economies in general, and resorted to analysing the three aspects with quantitative parallels in the sectoral and global spheres and which are: population, GDP and external trade. These indicators are used to review the performance of the sector as regards: (a) the role of agricultural activities in the economic and social development of each country, and (b) the capacity of reaction and the sensitivity of national agriculture to the changing influences of the external factors.

In 1973, 40 per cent of the total population of Latin America took part in the region's agricultural activities. The regional GDP for agriculture accounted for nearly 15 per cent of the total GDP, although owing to the drop in the growth rate of agriculture compared with the other sectors of the economy, this percentage has declined continuously. This simple fact reflects the low level of the per capita product in regional agriculture, and if this is linked with the existence of a distribution of sectoral income which there is no reason to suppose in any improvement on the rest of the economy, it may be explained why the average agricultural wage is lower than in the other sectors of production.

The dominant feature of the international situation in trade in agricultural products for recent years has been a sharp and rapid increase in prices, due among other reasons to a supply which was unable to satisfy the growing demand on an international scale. The Latin American region as a whole increased its foreign exchange earnings from agricultural exports, but not in the same proportion as world trade in agriculture, which implies that the region may be losing its relative importance compared with other regions.

/In 1973

In 1973, the value of Latin America's exports of agricultural products in dollars at current prices amounted to close on 11 billion dollars, which was equivalent to some 18 per cent of the world total. In the same year, imports of food stocks and agricultural raw materials for the region as a whole did not exceed the figure of 2.5 billion dollars, equivalent to less than 5 per cent of the world total and which gives favourable trade balance for Latin American agriculture of over 8 billion dollars. The structure of the trade balance in agriculture at the regional level means that the recent evolution of prices of agricultural products in the international markets is proving favourable for the region. The net effect of the increase in the prices of the agricultural products which the region exports vis-à-vis the increase in prices of agricultural products imported by the region has been a real contribution by agriculture to improving, or at least alleviating the deterioration of the terms of trade.

The evolution of agricultural output in the region is characterized by two clearly differentiated periods. Between 1970 and 1972 various restrictive circumstances, mainly of a climatic nature, caused large-scale decreases in production in several countries and harvests. The agricultural year 1972 has perhaps been one of the leanest in recent decades. In 1973, regional production recovered notably, and this trend became more pronounced in 1974, thus making it possible to estimate that the rate of growth achieved in the period 1970-1974 might well be similar to the traditional annual rate of 3.6 per cent.

Production figures for 1973/1974 are still limited and in some cases deficient; but they do make it possible to conclude that the performance of several products has been flexible enough to make the most of favourable situations in the external markets. The international conjuncture and the world food crisis have clearly shown that national agriculture - in some countries more than in others - is capable of reacting with some sensitivity to the effects on the one hand of the changing conditions in the external markets and on the other to strong pressures from local demand which has

/not been

not been satisfied when both these features are accompanied by better prices. This reaction would appear to confirm the well-known assertion that the restrictions imposed by demand and the lack of stimulus in prices are to a large extent one of the main causes of the lack of dynamism in regional agriculture.

In the countries of Latin America, the sub-sector of commercial agriculture would appear to have taken most part in the present conjuncture since it is this sector which contains the resources for production, and the capacity for organization and to decide in terms of market opportunities and to make use of and to respond to policy and operational measures adopted by the governments to stimulate production.

Subsistence or semi-subsistence agriculture has contributed to a small extent to the recent increases in output which have been achieved. In many countries, the precarious situation of the subsistence farmer may be considered to be deteriorating continually and progressively in relative terms. The recognition of this fact is one reason why several Latin American governments are concentrating greater efforts on dealing with the crisis of the poor peasant.

The most notable responses to the increase in production have come from countries whose price policies have been sufficiently mobile and flexible and where there have been real possibilities of expanding production by rapidly increasing the area under cultivation and by using crops with a short growth cycle, such as: the soybean, maize, sorghum, wheat rice, beans. This does not mean that parallel efforts to improve productivity in some areas and in specific crops have been abandoned. Data available for Venezuela, Panama, Colombia, Brazil, Paraguay, Ecuador, Argentina, Peru, Mexico, El Salvador and others indicate that in these countries - in some products more than in others - favourable responses have indeed been made.

In some countries little endowed with natural resources and which also require to make considerable investment in order to expand the area under cultivation, there is strong competition between products for exports and those for domestic consumption over the land under cultivation.

/Another effect

Another effect which it has been possible to observe is that the support prices programmes have generated disequilibria between products with support prices and products without. Disequilibria are also appearing among the products contained in these programmes.

Both the change in the relative prices of products and the increase in production costs which affect the crops with varying degrees of intensity are resulting in changes in the use of the land. This has determined the transfer of less remunerative crops. The most notable case which has been repeated in several countries is that of cotton, which because of competition with other crops has been displaced in some areas of Brazil, Mexico, and Colombia and replaced, as the case may be, by wheat, maize, soybean and sorghum which are now more remunerative. However, there was a simultaneous expansion of the area under cotton in other agricultural regions of these countries. Insofar as this is becoming general, a relatively important redistribution of crops and changes in the structure of regional production may be expected.

The most significant features here are:

- the increase in the share of livestock products, which have recorded a more rapid and sustained growth than crops. Poultry-breeding has shown notable activity stimulated by a growing domestic demand. If in addition to evaluating beef production, the increases in stocks on which the reduction in the slaughter rate has had some impact are also calculated, livestock production probably will prove to have increased at approximately 4.5 per cent annually;
- the relative importance of coffee, cotton and tobacco has decreased notably;
- cereals and oil seed have substantially increased their relative importance. Maize, sorghum and the soybean are the crops which have perhaps shown most sensitivity to the requirements of external demand.

/The increase

The increase in the area under cultivation has traditionally been the factor determining the growth of agricultural output in Latin America. Between 1970 and 1974, the area under cultivation increased by 9 million hectares, i.e., an annual growth rate of 2.5 per cent. Brazil is the most spectacular example of the expansion of the area under cultivation, with 7 million hectares.

The increase in the area under cultivation is due both to the pushing-back of the agricultural frontier and also - and this is perhaps what has made most contribution - to structure variations in the use of the land, the redistribution of crops, by displacing some and introducing others, to the harvesting of multiple and/or combined crops using the same land, to the farming of land covered by natural grasses, etc.

The expansion of the area under cultivation in various countries proves slow and expensive. The land to be absorbed is frequently difficult of access, and requires an infrastructure which has to be created, while the results are generally poor, owing to the lack of appropriate technologies.

Regional crop production increased to 2.4 per cent annually between 1970 and 1973. Two-thirds of this increase are a result of the effect of extending the area under cultivation while the rest comes from improvement in yields.

During the period 1970-1973 agriculture in the region has continued to introduce modern technological advances in farm work. Important progress has been made in improving the infrastructure for technological development. The modernization process has involved a rapid absorption of technological inputs, in particular of improved seeds, fertilizers, pesticides and mechanized equipment. A relative concentration of the uses of new technologies does, however, continue to be evident; this phenomenon is closely connected with existing agrarian structure and the packets of technology available.

/As from

As from 1973, the shortage and/or lack of fertilizers, pesticides and fuels in the international markets has had important repercussions on production costs and the structure of the use of land.

Up to the end of 1974 it would appear that desperately critical situations as regards the availability of inputs have not occurred in the region. However, the relative scarcity of some inputs and the sharp increases in their prices may lead in the short term to a drop in the high rate of growth of the use of inputs observed to date, with their obvious effects on programmes for yield improvement.

Compared with other developing regions, the situation of Latin America is less critical from the food point of view. The daily per capita share of food, expressed in terms of energy (calories) and proteins (in grammes) situates the regional average above the world average and relatively close to that of some developed countries like Japan. The regional daily consumption between 1969-1971 of 2,530 calories was 14 per cent higher, and the 64 grammes of proteins was 16 per cent higher than the average consumption of developing countries during the same period.

A more detailed study by countries shows that the region does not make up a homogeneous whole as regards food consumption. While in some countries the average levels may be considered to be satisfactory, in others, however, they are extremely low.

It is obvious that the basic feature of the food situation in each country is the pronounced lack of equality in the distribution of food among the different socio-economic groups. A survey to measure the effect of low income on the nutritional level of the population calculates that the food deficit could affect nearly 60 per cent of the population (183 million persons).

B. THE SITUATION OF THE AGRICULTURAL SECTOR AND OF EXTERNAL  
AGRICULTURAL TRADE WITHIN THE ECONOMIC FRAMEWORK  
OF THE LATIN AMERICAN COUNTRIES

1. The agricultural sector, population and income

To situate the agricultural sector within the framework of the general economy, it is common practice to analyse the three aspects for which quantitative equivalents exist at sectoral and global levels, population, gross domestic product, and external trade.

In the countries of the region, as a whole, agricultural activity generates a value added which is undoubtedly insufficient for it to perform its two basic attributes satisfactorily, i.e., to be the main source of jobs and of income for the rural population. In 1973, the per capita gross domestic product of agriculture of the agricultural population represented, for the region as a whole, just about 25 per cent of the per capita gross domestic product, of the non-agricultural population. Even lower than this regional average were the figures for Bolivia, Guatemala, Mexico, the Dominican Republic and Venezuela; only in Argentina, Uruguay and Colombia did it exceed 50 per cent (see table 1).

Income in the agricultural sector is likely to be low as a result of the terms of trade between the various sectors of activity which make up the national economies. Moreover, in examining the Latin American situation in this field, with the assistance of available indicators, it becomes quite clear that the income of the population dependent on agriculture is low, largely because productivity in the agricultural sector is relatively limited compared with the other sectors of activity.

It is limited because in simple physical terms the average volume of output per hectare, and per employed worker, is low compared with that of other countries, or with theoretical and possible averages; it is low because, historically, prices in the agricultural sector have evolved negatively, this is not only true of Latin America but of the world in general, however, a reversal of this trend could now be developing; finally it is limited because the ratio of capital to labour is clearly low, and economic policies have tended to favour the accumulation of capital in the non-agricultural sectors, particularly in the industrial sector.

/Table 1



Table 1

LATIN AMERICA: RELATIVE SITUATION OF THE AGRICULTURAL SECTOR

(Percentages)

Countries	Ratio of agricultural population to total population	Ratio of agricultural GDP to total GDP	Ratio of per capita agricultural GDP to per capita non-agricultural GDP	Foreign Trade		
				Ratio of agricultural exports to total exports	Ratio of agricultural imports to total imports	Ratio of agricultural imports to agricultural exports
Argentina	14	12	85	75	4	4
Barbados	22	-	-	38	16	135
Bolivia	58	20	19	4	13	180
Brazil	42	15	29	65	7	14
Colombia	44	28	50	80	8	16
Costa Rica	43	22	38	76	6	12
Cuba	31	-	-	-	-	-
Chile	24	8	28	3	29	1 012
Ecuador	51	22	29	67	8	12
El Salvador	55	26	28	61	7	15
Guatemala	62	28	24	65	5	9
Guyana	31	18	-	44	7	23
Haiti	76	48	29	60	23	52
Honduras	66	34	27	71	3	3
Jamaica	26	9	-	18	14	158
Mexico	44	10	15	41	4	22
Nicaragua	54	27	31	71	4	4
Panama	41	18	31	64	6	36
Paraguay	53	38	46	83	35	33
Peru	44	16	24	19	14	87
Dominican Republic	59	19	16	24	10	41
Trinidad and Tobago	16	5	-	7	8	200
Uruguay	16	22	153	84	11	27
Venezuela	24	6	21	2	9	565
<u>Latin America</u>	<u>40</u>	<u>15</u>	<u>25</u>	-	-	<u>23</u>

Source: Data provided by ECLA, CELADE, and FAO.

/In the

In the different countries of the region the limited productivity of the agricultural sector is becoming an even more serious problem, if account is taken of the unequal distribution of agricultural income among the agricultural population, which stems from among other things, the existing structures of land tenure, together with the very unequal levels of technology in the different types of farms. To these must be added the fact that the rates of unemployment (including equivalent underemployment) vary, for the region as a whole, from 20 to 30 per cent in the case of the potentially economically active population which makes the situation all the more serious in terms of income.<sup>4/</sup>

The agricultural population, defined as that part of the population whose income stems mainly from their participation in agricultural activities, represented, in 1973, somewhat more than 40 per cent of the total population of Latin America; in 1960, this percentage was closer to 50 per cent. As a result of the accelerated urbanization process, the annual growth of the agricultural population in the region, so far in this decade, would appear to be 1.4 per cent, whereas that of the total population is likely to be 2.8 per cent.

Of course, both the rates of growth of the population (agricultural and total) as well as the size of the agricultural population in the total population, vary considerably from one country to another. As regards the population growth rate, at the lower end of the scale there are Argentina, Barbados, Chile, Jamaica, Trinidad and Tobago, and Uruguay, with annual rates of less than 2 per cent whereas at the other end, there are Colombia, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, Paraguay, and the Dominican Republic with rates higher than 3 per cent the year. There is a certain relationship between the low population growth rates and the high degree of urbanization: thus in 1973, none of the countries which experienced population growth rates of less than 2 per cent the year had an agricultural population which surpassed more than 25 per cent of the total population. Similarly, in all of the countries with population growth rates of more than 3 per cent per year, the equivalent percentage in the same year was higher than 40 per cent, and in several of them as much as 50 (see table 1).

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<sup>4/</sup> Aspects related to employment are examined in greater detail in section D, item 2 (Technological inputs).

The share of the agricultural sector in the gross domestic product varies from country to country. Regional aggregate figures put the agricultural gross domestic product in 1973 at approximately 13 per cent of the overall gross domestic product; given the low growth rates of agriculture compared with that of the other sectors, this percentage has shown a continuous downward trend. Between 1970 and 1973, this percentage fell from 15 per cent to 13.4 per cent for the region as a whole. In 1973, Argentina, Brazil, Chile, Jamaica, Mexico, Trinidad and Tobago, Uruguay and Venezuela found themselves in a position below the regional average, whereas at the upper end of the scale Colombia, El Salvador, Guatemala, Haiti, Honduras, Nicaragua and Paraguay showed percentages which were higher than 25 per cent (see table 2).

Mention should be made of the greater relative influence of a few countries of the region on the regional agricultural gross domestic product. Brazil takes up almost a third of the total land area of the region, and no more than four countries, Argentina, Brazil, Colombia and Mexico take up three-quarters of it.

In reviewing the recent performance of regional agricultural activity, instead of using the evolution of the agricultural gross domestic product, the analysis of physical production (section C) was used.<sup>5/</sup> However, a few observations on this subject appear to be warranted. Taking agricultural income as a function of the value added of agricultural activity, (that is to say, the agricultural gross domestic product defined as the difference between the gross value of production at product prices and the cost of inputs for the agricultural producer) one must take account of the fact that the personal income of the farmer must be considered from two points of view: (a) the distribution and concentration of agricultural income, within the agricultural population, and (b) the effective purchasing power, determined, basically, by intersectoral price relationships and their corresponding evolution.

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<sup>5/</sup> Owing to the nature of information available for the present stage of the appraisal study, the analysis of agriculture, based on the rates of growth of the agricultural gross domestic product, is likely to be affected by a few constraints, among which mention could be made of, on one hand, the impossibility of explaining the pattern of events simply by examining product performance in particular, and, on the other hand, the difficulty of identifying with respect to products and inputs, the effects of recent changes in the price systems.

Table 1:

LATIN AMERICA: CONTRIBUTION OF THE AGRICULTURAL SECTOR TO THE  
TOTAL GROSS DOMESTIC PRODUCT

(Percentages based on values at 1970 prices)

Country	1960	1965	1970	1971	1972	1973
Argentina	15.6	15.2	13.2	12.3	11.8	12.0
Barbados a/	28.0	26.2	13.9	11.8	12.4	...
Bolivia	24.4	22.8	16.9	16.9	16.6	16.1
Brazil	16.5	17.9	14.3	14.4	13.6	12.4
Colombia	33.6	30.6	29.2	28.2	27.8	27.1
Costa Rica	29.4	27.3	25.0	24.8	24.6	24.8
Chile	9.5	8.1	7.8	7.6	7.0	6.1
Ecuador	38.8	36.6	29.9	27.5	27.3	24.7
El Salvador	35.7	31.6	30.6	30.3	29.1	29.1
Guatemala	32.6	31.5	30.1	30.6	30.8	31.2
Guyana a/	...	...	19.3	20.5	20.0	18.2
Haiti	48.8	52.0	50.8	49.6	49.2	47.4
Honduras	32.7	41.1	34.6	35.5	35.2	35.0
Jamaica a/	...	...	8.1	9.3	9.1	8.8
Mexico	16.1	14.4	11.8	11.7	10.9	10.2
Nicaragua	26.4	28.9	26.3	27.3	27.0	26.9
Panama	25.0	24.0	20.1	19.9	19.1	18.6
Paraguay	39.4	38.6	34.3	34.1	34.0	34.8
Peru	24.6	20.8	19.8	19.0	17.2	16.5
Dominican Republic	35.2	28.7	25.2	24.5	22.2	21.3
Trinidad and Tobago a/	...	...	7.7	7.3	6.8	5.0
Uruguay	11.0	12.3	12.6	12.6	12.4	12.6
Venezuela	7.3	7.3	7.6	7.4	7.1	7.1
<u>Latin America</u>	<u>18.0</u>	<u>17.2</u>	<u>15.3</u>	<u>14.7</u>	<u>14.0</u>	<u>13.4</u>

a/ Estimates on the basis of current prices.

/In examining

In examining the respective values of agricultural production, it is observed that 18 per cent of the agricultural production in Latin America as a whole was probably sent to export markets in 1973. This percentage, which is the result of an increase in the value of agricultural and livestock production for external markets, at 1969 producer prices, varies greatly from one country to the other (see table 3).

If the value of agricultural production for external markets for the year 1973 were calculated using actual prices prevailing in international markets, the value of production exported, on the basis of the composition of the exports of each country, would increase three or fourfold and in some cases even fivefold. Of course, it is necessary to bear in mind that production costs have also risen appreciably, particularly because of the increase in transport costs, and in energy, fertilizer and pesticide prices, but in any event, on the basis of the partial data available, it can be stated that such changes were not large enough to cancel the effect of the price increases, for its export products, on Latin American agricultures.

Between 1970 and 1974, the price of sugar in the world market increased more than eightfold, that of rice almost fivefold, that of wheat more than threefold, that of cacao threefold, and in the case of maize, beef and cotton more than twofold. Depending on the importance of such products in the agricultures of many of the countries of the region, there is no doubt that the price changes mentioned modified, in some way, the income of the sector. Furthermore, some indirect chain effects related to the price systems and intersectoral relations of the economy, as a whole, were observed. Among the principal inputs in agriculture, the prices of fertilizers rose three or fourfold for the same period, and that of pesticides fivefold; specific services such as transport experienced unprecedented rises.

Thus, it is to be assumed that although there was no appreciable change in the physical volume of agricultural production, the real income of the agricultural sector underwent sizable modifications in recent years solely because of changes in international prices.

/Table 3

Table 3

LATIN AMERICA: GROSS VALUE OF AGRICULTURAL PRODUCTION FOR EXPORT  
MARKETS AS PERCENTAGE OF GROSS VALUE OF  
TOTAL AGRICULTURAL PRODUCTION, 1973

Countries less than 20 per cent	Per- centage	Between 20 and 40 per cent	Per- centage	More than 40 per cent	Per- centage
Chile	2.4	Paraguay	20.1	Cuba	40.0
Venezuela	3.1	Panama	26.5	Costa Rica	48.5
Bolivia	4.6	Jamaica	28.1	El Salvador	50.1
Mexico	8.7	Argentina	29.0	Barbados	62.8
Peru	9.6	Guyana	29.6	Nicaragua	64.1
Brazil	11.7	Trinidad and Tobago	37.1		
Haiti	13.0	Honduras	38.7		
Colombia	13.5	Guatemala	38.9		
Dominican Republic	15.3				
<u>Latin America</u> (average)	<u>18.0</u>				
Ecuador	18.0				
Uruguay	18.4				

Source: ECLA calculations on the basis of national statistics.

/Similarly, it

Similarly, it is likely that these changes were greater because of adjustments in intersectoral price relations within the national economies. Since price changes varied, both the input/product ratio as well as the product/income ratio must have experienced sizable changes. For the agricultural producer, profits were substantially reduced as a result of changes in the cost of inputs and in the prices of his products, so too the value added, or agricultural product, which is in fact the effective income of the agricultural population, was to expand at a rate not necessarily related to that of production and the agricultural gross domestic product. In fact, there is every indication that the remuneration of wage earners followed its own evolution, at the same time that the changes in the prices of agricultural products were having a clear impact, not only on the value of labour, but also on the production of subsistence agriculture.

It is clear that any variation in world demand for agricultural products will give rise to a marked change in domestic supply and in prices in the domestic market. It is true that the institutional apparatus could react rapidly to conceive and enforce suitable economic policies to mitigate external effects; however, in so far as external changes are frequent, sizable, and unexpected, it is all the more difficult to the countries to enforce timely measures and policies.

Studies comparing the relative price structure of agricultural products with those of the other industries, mining, processing and services show that the agricultural sector has clearly not been favoured; neither has the inflationary process helped. In general, domestic marketing structures for the processing industries have prevented, in their role as intermediate industries, the rise in prices in the international markets from being transformed into real producer profits equal in size to the changes effected. Similarly, the existing agrarian structures also prevented a fair share of the producers' profits from being transferred, to the agricultural population.

## 2. The agricultural sector and external trade

The predominant feature of the international situation in the trade of agricultural products in recent years, and particularly in 1973-1974, was the sharp and accelerated increase in prices. Such increases contributed in the period 1972-1973 to an unprecedented increase of 46 per cent in the value of world trade. The value of agricultural exports of the developing countries as a whole increased by 36 per cent, whereas that of Latin American countries increased by 38 per cent. The foregoing suggest that although the region's foreign earnings from agricultural exports increased somewhat more than those of developing countries as a whole, the share of the value of their exports in world trade fell; the same general pattern is seen, although with important variations, in the period 1970-1973 (see table 4).

The value in dollars at current prices of Latin American agricultural exports in 1973 amounted to approximately 11 thousand million dollars, or the equivalent of 18 per cent of total world trade. In the same year, food imports and imports of agricultural raw materials by the region as a whole did not exceed 2.5 thousand million dollars, a figure which represented less than 5 per cent of the world total, which meant that the agricultural trade balance showed a surplus of 8 thousand million dollars in Latin America's favour. (see table 5).

During the period 1970-1973 the eight major agricultural export products of the region <sup>6/</sup> represented 79 per cent of the total value of Latin American agricultural exports. For the same period, these eight products represented 44 per cent of the total value of world agricultural trade. (see table 4). Given the relative importance of these eight products in the total of Latin American exports, the analysis of external trade was based on the observation of their performance both from the standpoint of world demand and supply, and from the standpoint of prices and stocks; however, it must be borne in mind that in the respective economies of each country it may happen that the products of fundamental importance may not be the same. In the regional context there are also some products, such as barley, oil and fats, and oil-cake and meal which although of little importance in total regional trade, have increased considerably in recent years (see table 6).

6/ Coffee, sugar, beef, cotton, maize, bananas, wheat and rice.



Table 4  
 VALUE OF WORLD AND LATIN AMERICAN AGRICULTURAL EXPORTS<sup>a/</sup>

	World		Developing countries	Latin American countries	
	Total	8 principal products <sup>b/</sup>	Total	Total	8 principal products <sup>b/</sup>
<u>Thousands of millions at current prices</u>					
1970	35.9	14.0	15.2	6.9	5.1
1971	39.3	15.6	15.0	6.7	5.0
1972	40.8	20.0	15.6	7.9	6.8
1973	59.6	27.1	21.2	10.9	8.8
<u>Annual percentage increase</u>					
1970-71	9.5	11.4	-1.3	-2.9	-2.0
1971-72	3.8	28.2	4.0	17.9	36.0
1972-73	46.1	35.5	35.9	38.0	29.4
1970-1973	18.4	25.0	11.7	16.4	19.9

	Share in world trade			Share of the Latin American countries in agricultural exports of developing countries	Share of the 8 principal products in Latin American agricultural exports	Share of Latin American exports of the 8 principal products in total world exports of the same products
	Developing countries	Latin American countries	World exports of 8 principal products			
<u>Percentages</u>						
1970	42	19	39	45	74	36
1971	38	17	40	45	75	32
1972	38	19	49	51	86	34
1973	36	18	45	51	81	32
Period						
1970-1973	38	18	44	48	79	34

Sources: ECLA estimates prepared on the basis of FAO data.

a/ Excluding forestry and fisheries.

b/ The 8 products which in 1970 were the major foreign exchange earners in Latin America: in order of importance - Coffee, sugar, beef, cotton, maize, bananas, wheat, and rice.

Table 5

## LATIN AMERICA: EXPORTS, IMPORTS, AND AGRICULTURAL TRADE BALANCE

(Millions of dollars)

Country	Agricultural exports		Agricultural imports a/		Agricultural trade balance	
	1970	1973	1970	1973	1970	1973
Argentina	1 416	2 382	80	90	1 336	2 292
Barbados	19	20	17	27	2	-7
Bolivia	8	15	24	26	-16	-11
Brazil	1 760	3 489	245	500	1 515	2 989
Colombia	588	789	57	124	531	665
Costa Rica	173	244	21	30	152	214
Cuba	822	1 097	220	301	602	796
Chile	32	30	152	305	-120	-275
Ecuador	182	232	15	29	167	203
El Salvador	148	217	18	34	130	183
Guatemala	178	267	16	24	162	243
Guyana	47	50	12	18	35	32
Haiti	23	38	10	20	13	18
Honduras	121	170	12	12	109	158
Jamaica	63	66	67	120	-4	-54
Mexico	613	814	78	181	535	633
Nicaragua	113	202	7	9	106	193
Panama	71	78	17	28	54	50
Paraguay	50	93	13	41	37	52
Peru	166	216	96	187	70	29
Dominican Republic	68	108	20	44	48	64
Trinidad and Tobago	32	38	48	76	-16	-38
Uruguay	179	225	27	60	152	165
Venezuela	35	45	168	255	-133	-210
<u>Latin America b/</u>	<u>6 907</u>	<u>10 925</u>	<u>1 440</u>	<u>2 541</u>	<u>5 467</u>	<u>8 384</u>

Source: FAO data.

a/ Including foodstuffs and raw materials of agricultural origin.

b/ This represents the total of imports and exports for the 24 countries, therefore, intra-regional trade.

/Table 6

Table 6  
 YEARLY AND OVERALL VARIATION IN WORLD AND LATIN AMERICAN EXPORTS OF A RANGE OF SELECTED PRODUCTS  
 (1970-1973)  
 (Percentages)

Products	World				Latin America			
	1970- 1971	1971- 1972	1972- 1973	1970- 1973	1970- 1971	1971- 1972	1972- 1973	1970- 1973
Wheat	-1.4	30.8	-0.3	8.8	-55.7	66.7	75.5	9.1
Barley	26.9	-15.2	3.6	5.1 <sup>a/</sup>	-7.5	6.8	197.9	43.0
Maize	14.2	24.9	16.8	18.6 <sup>a/</sup>	10.1	-57.2	86.8	4.1
Rice	6.4	-4.6	-2.6	-0.5	-1.1	-67.2	19.5	-27.0
Oils and fats	6.6	6.3	0.5	4.6	-24.9	24.9	41.1	9.8
Oil-seeds and meals	3.6	8.4	9.3	7.1	10.4	8.7	5.4	8.1
Fishmeal	-1.0	-1.6	-48.2	-20.0	-2.1	-12.8	-76.9	-42.0
Beef	-5.1	22.9	6.3	7.4	-20.0	-30.0	-21.4	-6.5
Mutton	8.5	-0.3	-16.2	-3.2	-42.3	-46.2	51.8	-22.0
Sugar	-3.1	4.3	3.3	1.5	-9.8	4.1	9.5	-0.9
Coffee	1.4	6.8	5.1	4.4	4.1	5.7	3.6	4.4
Cocoa	5.6	5.2	-6.4	1.3	6.9	4.8	-15.7	-1.9
Tobacco	4.7	18.3	0.8	7.9 <sup>a/</sup>	6.4	15.4	-0.7	6.8
Cotton	1.0	1.6	13.8	5.3	-27.4	24.7	1.4	-2.8

Source: FAO data.

<sup>a/</sup> Average yearly rates.

The new situations in the world market are numerous and some of the changes far-reaching; a search for the underlying causes leads necessarily to an analysis of phenomena which range from inflation in the developed countries and the monetary crisis - with its consequent variations in exchange rates - to the present energy crisis. What is certain is that, in the short-term, the Latin American countries will definitely have to face considerable variations in international prices, both for their export products and for the goods and services they have to import. More specifically, as regards the agricultural sector, it is clear that those countries which boast of a greater variety of natural resources for agriculture, do not experience as great a need to import agricultural products as those whose natural resources are more limited, as for example the Central American countries. The foregoing does not necessarily imply that the fluctuations in prices in the world market have a weaker impact on the countries with a small volume of trade, than on those with a larger volume. Generally, the higher the ratio of foreign trade to domestic production in a given country, the greater is the degree of vulnerability and dependence. However, vulnerability and dependence may also, in certain cases, be brought about by the importance of the exports of a given product - the case of coffee in Brazil, for example - in the balance of payments.

The effect of agricultural trade on the balance of payments could be said to be a further indirect link between the world market and Latin American agriculture. Agriculture has made - and will continue to make - a large contribution to foreign exchange earnings, but, at the same time, either because of its growing needs for imported inputs, or because of its incapacity to produce agricultural products locally which are necessary for the national market, the agricultural sector is, to a greater or lesser extent, depending on the country in question, the user of available foreign exchange.

/It is

It is, therefore, of great importance to know to what extent the domestic economies of the countries of the region are vulnerable or dependent on fluctuations in the world market. Of course, as regards the agricultural sector, its vulnerability or dependence is greater or lesser depending on the importance of production for export compared with the total production of the sector. Equally, depending on the importance of agricultural imports compared with the domestic availability of such products, any change either in external supplies or in international prices will have an impact, through domestic markets, on the economy as a whole (see table 7).

In Bolivia, Chile and Venezuela, agricultural production for export does not exceed 4 per cent of the gross value of production, whereas in other countries, such as the Central American ones, the percentage exceeds 40 per cent. For the region as a whole, this percentage was 18 per cent in 1973 and in 1970 was probably 19.4 per cent. Because of the method used to calculate the value of production and exports at constant producer prices, changes between 1970 and 1973, both for the region as a whole and for each country, can be explained only in the changes which have taken place in physical output and the volume of production reserved for exports are taken separately.

As can be seen in the same table 7, on the import side there is a smaller variation between countries, although in the majority of them, between 1970 and 1973, imports of agricultural products increased vis-à-vis domestic supplies. In general, it can be seen, that with few exceptions, the value in 1973 of agricultural imports was less than the corresponding values for available domestic supplies by 25 per cent. For the region as a whole, this percentage was only 12 per cent. In the larger countries such as Argentina, Brazil, Colombia, and Mexico the percentage was less than 8 per cent. The figure was the same for Guatemala.

Table 7

LATIN AMERICA: DEPENDENCE OF THE AGRICULTURAL SECTOR  
ON THE WORLD MARKET

Countries	Agricultural exports as a percentage of agricultural production a/		Agricultural imports as a percentage of the domestic supply of agricultural products b/	
	1970	1973	1970	1973
Argentina	31.3	29.0	4.0	4.2
Barbados	68.8	62.8	77.3	84.4
Bolivia	2.2	4.6	11.3	10.9
Brazil	12.3	11.7	4.6	8.0
Colombia	14.7	13.5	4.2	8.2
Costa Rica	48.2	48.5	10.8	12.6
Cuba	49.5	40.0	27.6	34.5
Chile	3.6	2.4	25.5	42.8
Ecuador	16.3	18.0	5.6	8.2
El Salvador	49.5	50.1	8.9	14.0
Guatemala	36.3	38.9	5.4	7.3
Guyana	48.4	29.6	22.6	20.2
Haiti	10.8	13.0	5.0	9.2
Honduras	36.1	38.7	6.9	6.2
Jamaica	31.4	28.1	42.4	51.5
Mexico	9.5	8.7	2.2	4.6
Nicaragua	51.7	64.1	5.4	8.0
Panama	30.8	26.5	12.1	16.3
Paraguay	16.9	20.1	8.3	18.1
Peru	10.9	9.6	12.1	21.2
Dominican Republic	15.2	15.3	5.3	10.1
Trinidad and Tobago	36.6	37.1	53.9	65.8
Uruguay	27.5	18.4	12.6	22.2
Venezuela	4.1	3.1	18.0	23.2
<u>Latin America</u>	<u>19.4</u>	<u>18.0</u>	<u>7.9</u>	<u>12.1</u>

Source: ECLA estimates based on FAO data.

a/ Represents the gross value of agricultural production for export markets expressed as a percentage of the gross value of total agricultural production; both valued at 1969 producer prices.

b/ Domestic supply is equal to the gross value of agricultural production at 1969 producer prices less the gross value of agricultural production exported, plus the CIF value of agricultural imports at 1970 prices.

/It would

It would appear that future world reserves of agricultural products will show a marked degree of instability. Nevertheless, whatever turn events take in the world market, it offers possibilities to all Latin American countries without exception. To take advantage of such possibilities timely and appropriate measures are required, and the ability in some cases, to make full use of the new situations being produced by the world market, and, in others, to create the conditions necessary to avoid or mitigate negative direct or indirect effects, which such situations could cause in national economies. At present, it is a fact that all the countries of the region are suffering the consequences of the instability of the world market in respect of agricultural products. If the trend of rising prices continues, it will no doubt be difficult to prevent domestic prices from adjusting upwards to the level of international ones. For some countries, this could be considered beneficial because of the positive effect exports would have on the balance of payments. On the other hand, it could induce producers to direct their resources towards exports, to the detriment of the domestic market, and this could tend to aggravate the nutritional situation for a considerable section of the population, for, given the inequality in the distribution of income in the majority of the countries of the region, such rises would bring no benefit to the masses.

On the contrary, if the rise in prices in world markets were temporary, and tended to drop later on, the formulation and enforcement of price policies will have an important part to play; first, because the processes of adaptation to the instable world market require flexibility and speed on the part of those responsible for economic policy, who must necessarily take account of the time dimension. Secondly, it is hardly likely that the movement towards equilibrium in the world markets will be free of fluctuations.

As was pointed out earlier on, the most notable feature of the recent trend in international markets for agricultural products was the spectacular rise in prices. Tables 8 and 9 show the trend in the prices of those agricultural products which, because of their export values, were, in 1970, among the eight most important products of the region.

/Table 8

Table 8

IMPLICIT PRICES OF SELECTED PRODUCTS  
(Dollars per ton)

Product	Reference countries a/	1960	1965	1970	1971	1972	1973	Present prices b/ 1974
Wheat	Argentina	57.5	56.0	54.7	58.4	65.1	74.1	180
Maize	Argentina	48.3	54.8	50.7	56.8	58.1	84.7	155
Rice	Argentina	82.5	82.9	90.6	103.3	94.0	127.3	517
Beef	Argentina	430.9	596.8	551.1	822.1	994.7	1 341.7	1 500
Sugar (centrifugal)	Free market	100.0	56.6	99.1	119.4	196.3	253.3	1 290
Coffee	Brazil	706.2	871.1	958.6	744.2	916.0	1 121.4	1 160
Bananas	Ecuador	82.1	79.9	69.1	74.9	77.4	78.4	97
Cotton (fibre)	Brazil	477.9	489.0	450.4	604.4	660.4	757.4	926

Source: ECLA estimates on the basis of national data.

a/ Country with highest exports of the product in 1970.

b/ FOB prices according to Chilean import prices for the last fifteen days of December 1974.



Table 9

EXPORT PRICE INDEXES  
(1970 = 1.00)

	1960	1965	1970	1971	1972	1973	1974
Wheat	1.05	1.02	1.00	1.07	1.19	1.35	3.29
Maize	0.95	1.08	1.00	1.12	1.15	1.67	3.06
Rice	0.91	0.92	1.00	1.14	1.04	1.41	5.71
Beef	0.78	1.08	1.00	1.49	1.80	2.43	2.72
Sugar	1.01	0.57	1.00	1.20	1.98	2.56	13.00
Coffee	0.74	0.91	1.00	0.78	0.96	1.17	1.21
Bananas	1.19	1.16	1.00	1.08	1.12	1.13	1.40
Cotton (fibre)	1.06	1.09	1.00	1.34	1.47	1.68	2.06

Source: Table 8.

/The recent

The recent trend in prices for agricultural products in international markets seems to have constituted a real advantage for the region as a whole. A simple exercise is enough to corroborate this statement. The exercise consists of establishing in turn the values, at 1970, 1973 and 1974 prices, of the volume of exports for all the countries of the region in 1970, and then of comparing the values received in that year with the hypothetical value which they would have received had they exported similar volumes in the other years mentioned (see table 10).

The exercise shows that, as a result of the mere increases in international prices, Latin America would have obtained for equal volumes of exports and imports, an increase in income, compared with 1970, of 3,848 million dollars in 1973 and 16,137 million in 1974. Both increases, in the two hypothetical cases, represent a higher value, in absolute terms, than imports of agricultural products. On the basis of this it can be concluded that whatever the rate of world inflation may have been, that is to say, the real evolution of import prices, the difference in the agricultural trade balance implies a surplus, and therefore a real contribution of agriculture to the improvement of the terms of trade. Of course, if this type of exercise were carried out for each one of the countries, it would show that variations in international prices affect each one to a varying degree; and that this depends, undoubtedly, on the structure and weighting of products, both of imports and exports. Three further observations remain to be made in respect of the interpretation of this exercise. First, it is likely that the prices of agricultural inputs have increased more rapidly than those for agricultural products exported by the region as a whole, which would make it necessary to deduct from the increase in the value of agricultural exports the increase in the value of inputs, so as to determine with greater accuracy the real contribution of agriculture to the improvement of the terms of trade. Secondly, one must bear in mind that one of the causes of the increase in prices stems from the cutback in the supply of agricultural products at a time when demand was increasing, for, if the international supply of products increases, unit prices will drop. Thirdly, it ought to be pointed out that the calculations refer to the whole of the region and, therefore, interregional trade is included, both for exports and imports.

Table 10

LATIN AMERICA: VALUE OF EXTERNAL AGRICULTURAL TRADE  
IN 1970, AT 1970, 1973 AND 1974 PRICES <sup>a/</sup>  
(Millions of dollars)

	Value of agricultural trade recorded in 1970		
	At 1970 prices	At 1973 prices	At 1974 prices <sup>b/</sup>
Agricultural exports (FOB)	6 907	11 382	24 887
Agricultural imports (CIF)	1 446	2 073	3 289
Agricultural trade balance	5 461	9 309	21 598
Additional income		3 848	16 137

Source: ECLA estimates on the basis of FAO data.

a/ Includes regional trade.

b/ Calculated on the basis of FOB prices quoted in Chile during the last 15 days of 1974.

Tables 11 and 12 show the exports or imports of the eight principal export products of the region, for each country in the years 1970 and 1973; this makes it possible to calculate, for the region, the net balance of each product, which from the point of view of interregional trade implies the maximum use of trade potential.

The trade potential, for each product, could be defined as either (a) the exportable surplus or (b) the deficit to be covered by imports,<sup>7/</sup> whichever is the lesser. That is to say, when the exportable surplus for export for the countries as a whole is lower than the import needs of the group of those countries unable to meet their needs, the exportable surplus is taken as the maximum trade potential for the product in question. Inversely, when the exportable surplus exceeds the import needs of the countries in short supply, this is taken as representative of the trade potential.

Obviously, the estimated volumes for intra-regional trade potential are to be considered extremes hardly ever occurring in practice. This could be due to, among other reasons, the fact that the countries are not disposed to depending on a sole source of supply, and could also be due to the existence of trade commitments with third countries, on the side of both the exporting Latin American countries, and the importing ones. A further cause could be the problems stemming from external trade financing of the infrastructure required to facilitate the seasonal movement of production between the different countries and hemispheres, etc. Moreover, it is necessary to take into account that the greater the progress made in regional integration processes, and the greater the use that can be made of the comparative advantages existing in the different countries, which facilitate a higher degree of specialization, the greater will be the scope for trade (see table 13).

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<sup>7/</sup> In each product the exportable surplus is equal to the domestic production less domestic consumption. The deficit to be covered by imports is equal to domestic demand less domestic production.

Table 11

LATIN AMERICA: EXTERNAL TRADE OF THE PRINCIPAL AGRICULTURAL PRODUCTS IN 1970

(Thousands of tons)

Country	Wheat	Maize	Rice	Beef	Sugar (centrifugal)	Coffee	Bananas	Cotton (fibre)
Argentina	2 418	5 233	146	716	103	-34	-163	45
Barbados	-17	-2	-12	-6	139	-	-	-
Bolivia	-189	-	-	-	7	4	-	2
Brazil	-1 993	1 464	129	167	1 142	1 024	204	343
Colombia	-227	6	-	46	130	390	262	69
Costa Rica	-68	-32	-	17	75	69	856	-
Cuba	-737	-170	-316	-2	6 899	2	-	-17
Chile	-216	-264	-57	-32	-38	-15	-75	-31
Ecuador	-73	-	-	-	59	53	1 364	-
El Salvador	-60	-	-	2	52	113	-	41
Guatemala	-89	-18	-	9	61	98	220	50
Guyana	-42	-6	94	-4	315	-	-	-
Haiti	-58	-	-	1	20	16	-	-
Honduras	-48	15	-16	14	9	26	813	3
Jamaica	-179	-72	-50	-12	298	-	136	-1
Mexico	42	-	-23	192	599	86	-	214
Nicaragua	-35	-	31	24	710	30	6	68
Panama	-42	-	-	-4	36	2	600	-
Paraguay	-73	23	-	26	-	1	-	10
Peru	-543	-2	-	-22	428	46	-	69
Dominican Republic	-44	-	-1	3	-	27	7	-
Trinidad and Tobago	-83	-47	-43	-7	192	2	-	-
Uruguay	-	-	-	148	-51	-4	-40	-6
Venezuela	-690	-109	70	-17	41	17	23	-5
Total exports of the countries of the region	2 460	6 741	470	1 365	11 315	2 006	4 491	914
Total imports of the countries of the region	-5 486	-722	-518	-106	-89	-53	-278	-60
Net balance	-3 026	6 019	-48	1 259	11 226	1 953	4 213	854

Source: ECLA, estimates on the basis of FAO figures.

Table 12

LATIN AMERICA: EXTERNAL TRADE OF PRINCIPAL AGRICULTURAL PRODUCTS IN 1973

(Thousands of tons)

Country	Wheat	Maize	Rice	Beef	Sugar (centrifugal)	Coffee	Bananas	Cotton (fibre)
Argentina	3 181	5 900	46	53	449	40	-133	-10
Barbados	-120	-5	-33	-7	107	-	-	-
Bolivia	-157	-	-	-	6	4	-	15
Brazil	-3 014	30	49	274	2 855	1 169	139	290
Colombia	-403	-125	-	31	195	392	240	42
Costa Rica	-80	-43	-	24	117	73	1 030	-
Cuba	-868	-100	-339	-1	4 793	2	-	-19
Chile	-935	-61	-55	-18	-249	-11	-56	-22
Ecuador	-125	-	-	-	91	63	1 391	-3
El Salvador	-73	-80	-2	1	100	122	-	63
Guatemala	-75	-65	-	16	130	100	220	88
Guyana	-54	-3	73	-3	251	-	-	-
Haiti	-91	-	-	1	15	25	-	-
Honduras	-43	8	-7	21	11	34	1 020	3
Jamaica	-210	-114	-49	-13	265	-	109	-1
Mexico	-708	-	-56	141	565	139	-	179
Nicaragua	-37	-	8	26	1 000	40	105	100
Panama	-45	-30	-2	-6	51	3	540	-
Paraguay	-95	3	-	38	7	3	-	19
Peru	-753	-210	-	-11	370	58	-	48
Dominican Republic	-121	-	-43	7	-	35	25	-
Trinidad and Tobago	-95	-79	-19	-4	206	3	-	-
Uruguay	-	-	-	120	-159	-4	-13	-5
Venezuela	-540	-113	8	-17	45	20	12	-11
Total exports of the countries of the region	3 181	5 941	184	1 113	11 629	2 285	4 831	847
Total imports of the countries of the region	-8 642	-2 128	-583	-80	-408	-55	-202	-71
Net balance	-5 461	4 813	-399	1 033	11 221	2 230	4 629	776

Source: ECLA estimates on the basis of FAO figures.

Table 13

LATIN AMERICA: PRINCIPAL AGRICULTURAL EXPORT PRODUCTS AND  
THEIR REGIONAL TRADE POTENTIAL, 1960-1973

		1960	1965	1970	1971	1972	1973
		<u>Thousands of tons</u>					
Wheat:	Exports	2 504	7 361	2 460	1 091	1 819	3 192
	Imports	3 993	4 948	5 486	6 079	6 558	8 653
	Net balance	-1 489	+2 413	-3 026	-4 988	-4 739	-5 461
	Trade potential	2 504	4 948	2 460	1 091	1 819	3 192
Maize:	Exports	2 608	2 933	6 755	7 436	3 186	5 952
	Imports	133	385	736	804	928	1 139
	Net balance	+2 475	+2 548	+6 019	+6 632	+2 558	+4 813
	Trade potential	133	385	736	804	928	1 139
Rice:	Exports	340	541	474	469	154	184
	Imports	400	625	522	643	560	583
	Net balance	-60	-84	-48	-174	-406	-399
	Trade potential	340	541	474	469	154	184
Beef	Exports	832	956	1 393	1 114	1 448	1 138
	Imports	109	112	134	140	134	105
	Net balance	+723	+844	+1 259	+974	+1 314	+1 033
	Trade potential	109	112	134	140	134	105
Sugar (centrifugal)	Exports	9 757	9 026	11 317	10 203	10 622	11 632
	Imports	160	176	91	152	212	410
	Net balance	+9 597	+8 850	+11 226	+10 051	+10 410	+11 222
	Trade potential	160	176	91	152	212	410
Coffee	Exports	1 872	1 688	2 007	2 087	2 206	2 286
	Imports	45	41	54	50	54	56
	Net balance	+1 827	+1 647	+1 953	+2 037	+2 152	+2 230
	Trade potential	45	41	54	50	54	56
Bananas	Exports	2 812	3 196	4 491	4 699	4 803	4 831
	Imports	265	243	278	234	187	202
	Net balance	+2 547	+2 953	+4 213	+4 465	+4 616	+4 629
	Trade potential	265	243	278	234	187	202
Cotton	Exports	619	1 022	924	671	837	849
	Imports	60	97	70	78	82	73
	Net balance	+559	+925	+854	+593	+755	+776
	Trade potential	60	97	70	78	82	73
		<u>Millions of dollars</u>					
Total for the 8 products: (dollars at current prices)							
	Exports	3 481	3 925	5 060	4 979	6 789	8 823
	Imports	414	529	570	702	827	1 191
	Net balance	+3 067	+3 396	+4 490	+4 277	+5 962	+7 632
	Trade potential	324	522	400	393	480	735

Source: ECIA estimates on the basis of FAO data.

/To show

To show the value that would have been obtained if full use had been made of regional trade potential between the years 1960 and 1973, table 13 also gives the value of exports and imports of the eight products and their trade potential. It can be seen that in 1973 this would have amounted to 735 million dollars, a figure which represents almost 30 per cent of the total of agricultural imports of the region in the same year. In effective interregional trade of such a trade potential, only the imports of wheat from Argentina by Brazil are important, for in 1973 such imports amounted to approximately 86 million dollars, a figure which represents almost a third of total Brazilian imports of this product.

Lastly, some observations must be made on the role played by external agricultural trade, and the one it continues to play in the development of Latin American countries. The contribution of the agricultural sector to economic development in general can be measured by its share in external trade. The exports of agricultural products have, in the majority of countries of the region, played a major role in economic development. By their very nature, the exports could be looked at from two points of view: on one hand the income generated, and, on the other, the jobs created within the agricultural sector.

The income generated by agricultural exports play an important part in the balance of payments for the large majority of the countries of the area, with the exception of Bolivia, Chile, and Venezuela, and to a lesser extent, Peru. In table 1 it can be seen that Barbados, Bolivia, Chile, Jamaica, Trinidad and Tobago, and Venezuela are financing their agricultural imports with foreign exchange resources which are not generated by the agricultural sector, and as a result their import/export ratio exceeds 100 per cent, reaching 565 per cent and 1,012 per cent in the cases of Chile and Venezuela respectively. In the remaining countries this ratio does not exceed 50 per cent, with the exception of Peru and Haiti (37 per cent and 52 per cent respectively). For the region as a whole

/the agricultural



the agricultural import/export ration amounted to only 23 per cent. The foregoing clearly shows that in the quasi totality of Latin American countries, exports of agricultural origin are essential for financing imports required by both the consumer market and the development requirements of other sectors.

Furthermore, to a greater or lesser extent, depending on the country, the agricultural export sector is one with savings potential, and moreover contributes, to a great extent, to the financing of the government budget; this is the reason for its importance in the general development process of the countries. Although it is a sector more closely linked with the tertiary sector of the economy, the fact that practically all its raw materials come from the primary agricultural sector cannot be overlooked. Institutionally and structurally, the agricultural export sector seems to be, depending on the country in question, linked to a lesser or greater extent with the primary sector, however, it happens that, jointly with the agricultural processing sector, the tertiary export sector can act as a filter preventing, on many occasions, market conditions from directly favouring the primary production sector.

From the other point of view, that is to say that of goods producing activities for foreign markets, it appears pertinent to recall the major role played and still being played by agricultural export activity as regards the introduction of technologies whether local, imported or adapted, in farms, or the construction of a physical infrastructure in rural areas. It is questionable what benefit development has derived from the foregoing. In many cases they have produced distortions and disequilibria, but it is an unquestionable fact that the technology introduced and the infrastructure constructed, and now existent, form part of the national heritage of each one of the countries, and, therefore, are basic tools for putting agricultural policies into practice.

### C. TRENDS IN AGRICULTURAL OUTPUT PRODUCTION

#### 1. Goals of the International Development Strategy and of the Perspective Studies

The International Development Strategy proposes as its goal for the developing countries an average annual rate of growth of at least 6 per cent in the gross product during the 1970s. Its attainment will imply an average annual expansion of 4 per cent in agricultural output and 8 per cent in manufacturing output.

The perspective studies carried out by FAO for South America and Central America show that it should be possible in these regions to achieve annual rates of growth of agricultural output of around 5 per cent, with greater volumes of exports to the rest of the world at higher growth rates than in the past.

The perspective study for Central America <sup>8/</sup> considers annual increases in the gross value of agricultural output fluctuating between 4.5 and 5.5 per cent for the period 1970-1990.

The perspective study for South America <sup>9/</sup> considers increases in the gross value of output for the period 1970-1980 of between 3.7 and 5 per cent.<sup>10/</sup>

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<sup>8/</sup> FAO/SIECA, Perspectives for agricultural development and integration in Central America (PAJA), Guatemala, May 1974.

<sup>9/</sup> FAO, Perspective study of agricultural development for Latin America, Rome 1972.

<sup>10/</sup> The lower rate of 3.7 per cent is close to the traditional rate, while the other alternatives are: 4.1 per cent for the first mean, 4.8 per cent for the second mean and 5 per cent for the upper mean.

The Second United Nations Development Decade opened in a climate of optimism and reassurance inspired by the "green revolution" and its spectacular potential results, between 1967 and 1970, and the good harvests in the years 1967-1970 in some developing regions.<sup>11/</sup>

FAO itself considered that it was necessary to ensure not only that the impetus was maintained in the dissemination of high-yield varieties of cereals in the countries in which they have been introduced but also that the higher level of technology which the new varieties represented should be extended to other crops and other countries.

"It seems reasonable to hope that the high yielding varieties of cereals will make it possible to overcome the worst calory deficiencies in many of the developing countries during the course of the 1970s. They should also help to reduce the scourge of protein deficiency that particularly afflicts so many children, both because cereals are man's main source of protein, and because the higher yield of these dominant crops can release land for other purposes, including feed production."<sup>12/</sup>

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<sup>11/</sup> Mexico was put forward as a good example of the possibilities offered by the green revolution. The results in the Far East, where demographic pressures and high population densities required substantial improvement in soil productivity, showed that high-yielding varieties of cereals had enabled this region to increase the output of rice by 4 per cent in 1969 and wheat production by 9 per cent. Furthermore, in many countries of the region the output of rice and wheat increased considerably. The increases were 6 to 13 per cent for rice in Indonesia, Pakistan and the Philippines and 28 per cent in the Republic of Korea, and 13 per cent for wheat in India. Although the increase in wheat production in Pakistan, estimated at 4 per cent, proved relatively modest, it should not be forgotten that an exceptional increase of over 40 per cent was achieved the previous year. In 1971 India was able to build up a considerable reserve, reaching a maximum figure of 8.5 million tons of wheat, and thus becoming virtually self-sufficient.

<sup>12/</sup> FAO, The State of Food and Agriculture, Rome, 1970.

In 1972 there was a sharp change in the international agricultural situation, and a period of scarcity began in the world cereal market, partly as a result of the poor harvest of 1972 due to the drought and unfavourable weather conditions. This produced rapid changes in the international markets, an increase in volumes of trade and relatively generalized price rises and reductions in reserves or surpluses of agricultural products in the major exporting countries, making it necessary to consider a viable system of world food security.<sup>13/</sup>

Thus the Second Development Decade, which began in an atmosphere of distinct optimism owing to the possibilities offered by the green revolution, changed its trend and as from 1972 to 1973, strengthening agriculture and increasing output became essential for the developing countries, whether they were net exporters or importers of foodstuffs or agricultural raw materials.

## 2. Changes in the structure of production

The share of some commodities or groups of these in the gross production value of agriculture in the region has been changing considerably, as may be seen in table 14.

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<sup>13/</sup> It is interesting to recall the situation of surpluses previous to 1972. FAO, in The State of Food and Agriculture 1969, placed emphasis on the renewed tendency to accumulate wheat surpluses, milk products and rice. In 1970 the exporting countries achieved the record figure of 64 million tons of wheat reserves. According to the 1970 Agriculture Law, the objective of the United States' wheat programme was to adapt output to anticipated requirements for domestic consumption and export, while the 1972 programme was aimed at reducing the area under wheat compared with 1971. In Canada the LIFT operation (Lower Inventories for Tomorrow) had reduced the area under wheat by 50 per cent in 1970. Stocks of rice were abundant, and with the large quantities available for export and the lower actual demand in 1971, prices reached the lowest level for the last ten years. Stocks of secondary cereals were also abundant. The United States feedgrain programme for 1972 is aimed at a diversion of around 15 million hectares, i.e., double the area diverted in 1971.

Table 14

LATIN AMERICA: CHANGES IN THE STRUCTURE OF AGRICULTURAL OUTPUT  
(Percentages)

Product	Total output including all products			Total output excluding maize, beef and milk		
	1959-1961	1969-1971	1973	1959-1961	1969-1971	1973
<b>Cereals</b>	<b>16.8</b>	<b>19.1</b>	<b>18.9</b>	<b>12.3</b>	<b>14.6</b>	<b>14.4</b>
Maize	8.5	9.3	9.1	-	7.4	6.3
Rice	4.1	4.3	4.3	6.1	6.4	6.8
Wheat	2.6	3.5	3.3	3.9	5.2	4.8
Others	1.6	2.0	2.2	2.3	3.0	3.3
<b>Root crops - Tubers</b>	<b>5.3</b>	<b>5.5</b>	<b>5.2</b>	<b>7.8</b>	<b>8.1</b>	<b>7.6</b>
Potatoes	2.5	2.5	2.2	3.7	3.7	3.2
Yucca	2.0	2.3	2.3	3.0	3.4	3.4
Sweet potato	0.7	0.6	0.6	1.0	0.9	0.9
Others	0.1	0.1	0.1	0.1	0.1	0.1
<b>Vegetables - Green vegetables</b>	<b>5.6</b>	<b>5.4</b>	<b>5.4</b>	<b>8.2</b>	<b>8.0</b>	<b>8.0</b>
Dried pulses	3.3	3.0	2.9	4.8	4.4	4.4
Green vegetables	2.3	2.4	2.5	3.4	3.6	3.6
<b>Oilseeds a/</b>	<b>2.5</b>	<b>2.2</b>	<b>2.5</b>	<b>3.7</b>	<b>4.3</b>	<b>5.4</b>
Soybean	0.1	0.6	1.7	0.2	1.0	2.6
Peanuts	0.7	0.7	0.6	1.0	1.1	0.9
Sesame	0.2	0.4	0.2	0.4	0.5	0.4
Sunflower	0.3	0.3	0.2	0.4	0.4	0.4
Coconut	0.5	0.4	0.4	0.7	0.6	0.6
Linseed	0.5	0.3	0.1	0.7	0.4	0.2
Castor-oil	0.1	0.1	0.2	0.2	0.2	0.2
Others	0.1	0.1	0.1	0.1	0.1	0.1
<b>Saccharines</b>	<b>8.1</b>	<b>7.6</b>	<b>7.7</b>	<b>11.9</b>	<b>11.4</b>	<b>11.4</b>
Sugar-cane	8.0	7.5	7.6	11.8	11.2	11.3
Sugar-beet	0.1	0.1	0.1	0.1	0.2	0.1
<b>Fruit</b>	<b>8.9</b>	<b>9.3</b>	<b>9.3</b>	<b>13.1</b>	<b>13.8</b>	<b>13.5</b>
Plantains-bananas	3.7	4.2	4.3	5.5	6.3	6.3
Citrous fruits	1.6	1.9	2.1	2.3	2.9	3.0
Grapes	1.5	1.3	1.4	2.3	2.0	2.0
Pineapples	0.3	0.3	0.3	0.4	0.4	0.4
Apples	0.2	0.2	0.1	0.3	0.2	0.2
Others	1.6	1.4	1.1	2.3	2.0	1.6
<b>Beverages - Tobacco</b>	<b>10.8</b>	<b>7.8</b>	<b>7.2</b>	<b>16.0</b>	<b>11.6</b>	<b>10.5</b>
Coffee	8.4	5.8	5.3	12.4	8.6	7.8
Tobacco	1.1	1.0	0.9	1.7	1.4	1.3
Cocoa	1.1	0.9	0.8	1.6	1.4	1.2
Tea - maté	0.2	0.1	0.2	0.3	0.2	0.2
<b>Vegetables fibres</b>	<b>4.2</b>	<b>4.3</b>	<b>4.3</b>	<b>7.2</b>	<b>6.4</b>	<b>6.3</b>
Cotton b/	4.7	4.1	4.1	6.8	6.0	6.0
Other fibres	0.2	0.2	0.2	0.3	0.3	0.3
Natural rubber	0.1	0.1	0.1	0.1	0.1	0.1
<b>Meats</b>	<b>21.0</b>	<b>21.6</b>	<b>21.6</b>	<b>11.3</b>	<b>12.8</b>	<b>13.8</b>
Beef	13.4	12.9	12.2	-	-	-
Pork	5.0	5.0	5.4	7.5	7.4	7.9
Poultry	2.0	3.2	3.5	2.9	4.6	5.2
Mutton	0.6	0.5	0.5	0.9	0.8	0.7
<b>Other livestock products</b>	<b>16.0</b>	<b>16.4</b>	<b>16.8</b>	<b>8.3</b>	<b>8.9</b>	<b>9.0</b>
Milk	10.4	10.3	10.5	-	-	-
Eggs	3.8	4.7	5.1	5.7	7.0	7.3
Wool	1.4	1.0	0.8	2.1	1.4	1.2
Dried cow hides	0.4	0.4	0.4	0.5	0.5	0.5
Others not specified c/	-	-	-	-	-	-
<b>Total agricultural products</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total crop products</b>	<b>62.9</b>	<b>62.1</b>	<b>61.6</b>	<b>80.4</b>	<b>78.1</b>	<b>77.3</b>
<b>Total livestock products</b>	<b>37.1</b>	<b>37.9</b>	<b>38.4</b>	<b>19.6</b>	<b>21.9</b>	<b>22.7</b>

Source: Joint ECLA/FAO Agriculture Division.

a/ Including cotton seed.

b/ Including cotton fibre and cotton seed.

c/ Less than 0.1.

/The most

The most important events here are:

(a) A change in the relative importance of the crop subsector and of livestock products, with an increase in the share of the latter. The growth of livestock production was more rapid and more sustained than that of crops, particularly in some branches, e.g., poultry-raising, which was entirely directed at satisfying local demand in the countries of the region.

(b) A substantial drop in the relative importance of beverages and tobacco, due basically to the decline in the production and supply of coffee (International Coffee Agreement), and of fibres, owing to problems of demand as a result of the competition and partial substitution by artificial fibres.

(c) Large-scale increases in the share of the cereals and oilseeds group. All cereals, increased their share, both those basically destined for local consumption in the region (rice and wheat), and those destined for the export market (maize and sorghum). As regards wheat and rice, the region is a net importer. Only Argentina sent part of its wheat output to foreign markets. In the rest of the producer countries, particularly Brazil, where the largest increases in output have been recorded, production is all for domestic consumption.

The increased share of the oilseeds group, was almost all due to the sharp increase in soybean output, which reacted satisfactorily to active international demand for oil and oilcakes (soybean cake has partly replaced fishmeal in concentrated feeds for cattle). Exports have increased considerably.

An examination of the changes which have taken place in the structure of outputs shows that this is relatively flexible vis-à-vis the changes in the performance of the agricultural commodity market.

Table 14 gives the structure of output in different periods or years, first considering all the products and then eliminating the three most important, i.e., beef, milk and maize, so as to make the changes which have taken place in the products of less relative importance more relevant. In calculating the gross production value the changes in cattle stocks were not considered.

3. Performance of regional agriculture:  
recent agricultural years

The average annual rate of increase in the gross production value of regional agriculture at constant prices, was only 1.6 per cent for the 1971 and 1972 harvests, and was down on that of the First Development Decade when the region achieved an average annual rate of 3.6 per cent.

In the agricultural years 1971 and 1972, particular circumstances caused a considerable decline in the output of some countries and some harvests.

In 1971, the decline in output of cotton, beef and sugar was not adequately countered by improved harvests in other products. The considerable progress recorded that year in Central America, Bolivia, Chile and Brazil, barely offset the decline in Argentina, due to the sharp drop in the production of beef and cotton, and in Cuba, due to an important setback in sugar production. At the regional level, production only increased by 1.8 per cent compared with the previous year.

In 1972, agricultural output once again increased slightly (1.4 per cent) and for the second year running per capita production declined. Beef and cotton production recovered. Sugar production increased in Argentina, Brazil, Bolivia, Colombia and Peru, but declined in the Central American countries and Cuba. The production of cereals, such as maize and other secondary cereals, was much lower. Drought caused serious problems in Mexico (centre and north), Barbados, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Guyana, and Haiti causing losses both in crops and grazing. Brazil expected a wheat harvest of around 2.5 million tons, but the harvest was actually less than 800,000 tons, as a result of too much rain and frosts. Frost also affected the coffee plantations. Agriculture in Chile experienced difficult weather conditions in 1972 and problems of an institutional nature.

The agricultural year 1972 turns out to have been perhaps one of the leanest in recent decades. The most varied selection of reasons, many in connexion with the weather, meant that the gross production value of agriculture declined in 16 of the 24 countries of the region (see table 15).

/Table 15

Table 15

LATIN AMERICA: GROSS PRODUCTION VALUE OF AGRICULTURE

Countries	Annual rates of growth (percentages)					
	1960- 1970	1965- 1970	1970- 1971	1971- 1972	1972- 1973	1970- 1973
	A a/	B b/	C	D	E	F c/
Argentina	2.9	2.0	-1.3	-2.6	8.1	1.5
Barbados	0.3	-	-8.8	-11.4	5.4	-3.6
Bolivia	3.5	3.9	5.7	2.2	6.7	4.4
Brazil	3.7	3.8	3.0	7.1	3.5	4.5
Colombia	3.3	3.6	0.5	2.1	2.9	2.5
Costa Rica	6.2	2.8	8.7	2.7	3.7	4.6
Cuba	2.4	2.5	-19.4	-4.4	9.9	0.3
Chile	3.1	4.0	6.6	-2.9	-12.1	-3.0
Ecuador	3.5	1.7	4.2	-5.4	-1.1	-0.4
El Salvador	3.8	3.4	22.8	-14.7	9.4	2.0
Guatemala	4.6	3.5	3.8	4.2	5.2	4.2
Guyana	1.7	-	19.8	-6.4	14.9	6.7
Haiti	1.5	1.5	3.5	-0.3	2.9	2.1
Honduras	4.1	4.0	11.5	-2.3	8.5	5.1
Jamaica	2.6	-	4.1	-2.1	0.6	0.7
Mexico	5.2	5.0	7.1	-0.6	0.3	2.2
Nicaragua	5.1	0.5	6.7	5.0	2.1	3.2
Panama	5.2	7.5	7.3	-2.9	4.9	1.4
Paraguay	4.1	2.6	0.7	-4.9	5.3	1.3
Peru	3.3	3.2	-2.7	-3.4	5.4	1.1
Dominican Republic	1.8	3.8	1.3	5.8	1.7	3.7
Trinidad and Tobago	3.2	2.3	-2.5	5.6	-3.7	0.9
Uruguay	1.0	-0.6	-3.1	-7.5	10.5	0.1
Venezuela	4.9	5.4	4.1	-0.5	5.2	3.0
<u>Latin America</u>	<u>3.6</u>	-	<u>1.8</u>	<u>1.4</u>	<u>4.1</u>	<u>2.7</u>

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

a/ 1959-1961 and 1969-1971.

b/ 1964-1966 and 1969-1971.

c/ 1969-1971 and 1973.

/In contrast



In contrast to the two previous years, 1973 was a good agricultural year, and the gross production value grew by about 4.1 per cent, with a large increase in some crops, such as dried pulses, oilseed (soybean), sugar and cotton. As regards livestock, the high growth rate of poultry and pig production was maintained.

The agricultural year 1974, for which more detailed estimates will be given below, would appear to have been like 1973 a year of good harvests which for some products were without precedent. Everything goes to show that the region will have an output in 1974 exceeding the average level of recent years, since, with some local exceptions, satisfactory weather conditions and encouraging market conditions have been recorded.

Summing up this short analysis of each agricultural year, it may be observed that the first two years (1971 and 1972) which showed very poor growth in their agricultural output, were followed by two years with growth rates which were close to or exceeded those proposed in the IDS.

#### 4. Evolution of the gross value of agricultural production by countries

Before analysing the country situation, the considerable difference which they have in the formation of the gross production value of regional agriculture should be mentioned. Three countries (Brazil, Mexico and Argentina) contributed 60 per cent to the total gross production value of regional agriculture. If Colombia, Cuba and Venezuela are added, a total share of 75.9 per cent is reached (see table 16). The evolution of agriculture in a small number of countries with high levels of output strongly influences any type of regional grouping.

The share of the individual country in the gross production value of regional agriculture has been relatively stable although changes may be noted in the share of some countries. Brazil, for example, has increased its contribution to nearly one-third of regional output, while Argentina and Cuba have reduced their relative share (see table 15).

Table 1.6  
 LATIN AMERICA: SHARE OF EACH COUNTRY IN TOTAL OUTPUT  
 (Percentages)

Countries	1959-1961	1969-1971	1973	Accumulative in 1969-1971
Brazil	27.7	27.8	29.3	27.8
Mexico	15.2	18.7	18.4	46.5
Argentina	14.6	13.5	12.9	60.0
Colombia	7.6	7.3	7.2	67.3
Cuba	5.3	4.7	4.3	72.0
Venezuela	3.4	3.9	3.9	75.9
Peru	3.8	3.6	3.5	79.5
Chile	2.4	2.2	1.9	81.7
Guatemala	2.0	2.1	2.2	83.8
Dominican Republic	2.4	2.0	2.1	85.8
Ecuador	2.0	1.9	1.8	87.7
El Salvador	1.9	1.9	1.9	89.6
Costa Rica	1.3	1.7	1.8	91.3
Nicaragua	1.1	1.3	1.3	92.6
Uruguay	1.6	1.2	1.1	93.8
Honduras	1.2	1.2	1.3	95.0
Haiti	1.3	1.0	1.0	96.0
Bolivia	1.0	0.9	1.0	96.9
Panama	0.8	0.9	0.9	97.8
Paraguay	0.8	0.8	0.8	98.6
Jamaica	0.7	0.6	0.6	99.2
Guyana	0.5	0.4	0.4	99.6
Trinidad and Tobago	0.3	0.3	0.3	99.9
Barbados	0.1	0.1	0.1	100.0
<u>Latin America</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Joint ECLA/FAO Agriculture Division.

/If the

If the performance of agriculture is analysed in each country, in strict relation to the goal of 4 per cent proposed in the IDS as the average annual rate of growth for agricultural output, very different performances may be seen among the various countries, and, generally speaking, relatively poor results.

In brief, it could be said that:

(a) Only 6 of the 24 countries considered in the present appraisal achieved rates higher than that mentioned in the period 1970-1973: 14/ Bolivia, Brazil, Costa Rica, Guatemala, Guyana and Honduras. With the exception of Guyana, agriculture in these countries increased at rates of around 4 per cent annually or over during the 1960s. During the period 1969-1971 these six countries accounted for 34.1 of the gross production value of agriculture in the region.

(b) Three countries achieved rates of less than 4 per cent, but equal to or more than 3 per cent annually: Nicaragua, the Dominican Republic and Venezuela. In 1969-1971 their share in the gross production value of agriculture in the region was only 7.2 per cent.

(c) Agriculture in four other countries grew at rates varying between 2 and 3 per cent: Colombia, Mexico, Haiti and El Salvador. Together they contributed 28.9 per cent of the gross production value of the region in 1969-1971.

(d) Another four countries had annual increases in output of between 1 and 2 per cent during the period 1970-1973: Argentina, Panama, Paraguay and Peru. They contributed 18.9 per cent to the formation of the gross production value of the region.

(e) Lastly, agriculture in seven countries which as a whole accounted for 11 per cent of the gross production value in Latin America (1969-1971), grew at average annual rates of less than 1 per cent or actually declined between 1970 and 1973. These countries are Barbados, Cuba, Chile, Ecuador, Jamaica, Trinidad and Tobago and Uruguay.

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14/ 1970 corresponds to the average of 1969-1971.

The fact that in several countries the rate of growth of agricultural output declined between the 1960s and the 1970s is particularly striking. In Mexico the rate dropped from 5.2 to 2.2 per cent, in Nicaragua from 5.1 to 3.2 per cent, in Panama from 5.2 to 1.4 per cent, in Paraguay 4.1 to 1.3 per cent, and in Venezuela from 4.9 to 3 per cent. The case of Chile is somewhat similar; following the 4 per cent growth rate achieved in the second half of the 1960s, for various reasons it recorded a decreasing annual rate of -3 per cent.

Agriculture in Mexico, once it had achieved self-supply in wheat and maize (through price policies, increase in the area under irrigation and the strong impetus given to modernization), redirected its production policy in search of a readjustment of the use of the soil, and at the same time seeking to improve its dry farming. The difficulties inherent in implementing new policies, plus the relative deterioration of support prices, seem to have slowed the growth rate of production which had been achieved during the 1960s.

In Nicaragua, despite the persistent growth of cotton production, the output of coffee, maize and sorghum declined, while banana output showed a slow growth rate, caused among other things by adverse weather conditions.

Although Panama achieved a satisfactory increase in livestock output, it showed a sharp decline in crop production.

Something similar took place in the period 1970-1973 in Paraguay; together with a satisfactory rate of growth of livestock production, a decline in crops such as cassava (the country's main crop which declined by 10.3 per cent), citrus fruit, sugar cane and others was recorded.

Venezuela also showed a similar situation to the two countries described above, since while in the 1970s livestock recorded considerable growth (5.4 per cent), crop production - particularly maize which is the country's most important crop - underwent a considerable decline; the coffee and sesame harvests also declined.

A clear recovery for agricultural production began in several countries (Argentina, Cuba, Peru and Uruguay) in 1973, following two years of poor harvests. In all these countries, favourable weather, together with satisfactory prices on the international agriculture commodity market, has been the cause of large-scale increases in several commodities in 1974.

Comparing the growth of gross production value with the average annual rate of growth of the population in each country, the region does not show a very promising picture for the period 1970-1973. Agriculture in nine out of the 24 countries analysed (Argentina, Bolivia, Brazil, Costa Rica, Guatemala, Guyana, Honduras, Dominican Republic and Venezuela) grew more rapidly than the population. In the remaining countries, the per capita output declined during this period, while at the regional level agricultural output grew at 2.7 per cent and the population increased at an annual rate of 2.8 per cent.

From the Perspective study of agricultural development for Central America prepared by FAO, it may be seen that only Costa Rica and Honduras were able to surpass the minimum average annual rate of 4.5 per cent which characterized the trend of the years 1960-1970. Of the two countries mentioned, Costa Rica achieved 4.6 per cent and Honduras 5.1 per cent annually. Unfortunately, the damage caused to agriculture in Honduras by the cyclone Fifi has seriously compromised the immediate agricultural development of the country.

As regards the projections prepared by FAO in the Perspective study of agricultural development for South America, only Bolivia and Brazil, with increases of 4.4 and 4.5 per cent annually in the gross production value, exceeded the "medium low" assumption, which represents an increase of 4.1 per cent annually. No South American country attained the "medium high" growth assumption (4.8 per cent) and still less the "high" assumption (an average annual rate of 5 per cent).

## 5. Evolution of the agriculture and livestock sectors

At the regional level, the share of crops in the gross production value of agriculture is very much higher than that of livestock, amounting to around 62 per cent. Only in three countries (Uruguay, Chile and Venezuela) did livestock production contribute more than half the gross production value in 1973. In Mexico and Argentina livestock farming contributed around 45 per cent. In the remaining countries, livestock production did not reach 40 per cent (see table 17). The different rates of growth which may be observed in these two sub-sectors are noteworthy. During the 1960s, crop production increased at a rate of 3.5 per cent annually, while livestock production increased by 3.8 per cent. This difference in rate was accentuated in the period 1970-1973, when both rates were less than those of the previous decade. Livestock production increased at a rate of 3.1 per cent annually, while crop production increased by 2.4 per cent. The explanation of this notable decline in the growth rate of crops is connected with the adverse weather conditions which affected various areas of production in the region in 1971 and 1972. In the short-term, livestock farming is less sensitive to climatic changes and its evolution is thus more stable.

It is also interesting to note the dynamism which characterized both those sectors at the country level. As has already been said, while agricultural output in nine countries increased at rates of more than 3 per cent annually in 1970-1973, in the case of the crop sub-sector only eight countries achieved growth rates of around 3 per cent or over. In the case of livestock production, the growth rate in seventeen countries exceeded 3 per cent annually, and thirteen of these achieved annual rates of over 4 per cent (see table 18).

Table 17

LATIN AMERICA: SHARE OF CROPS AND LIVESTOCK FARMING IN  
GROSS PRODUCTION VALUE OF AGRICULTURE

(Percentages)

Country	1970		1971		1972		1973	
	Crops	Live-stock	Crops	Live-stock	Crops	Live-stock	Crops	Live-stock
Argentina	54.2	45.8	57.4	42.6	53.7	46.3	57.9	42.1
Barbados	78.1	21.9	75.1	24.9	71.8	28.2	72.3	27.7
Bolivia	72.8	27.2	72.9	27.1	72.9	27.1	72.7	27.3
Brazil	60.8	39.2	61.7	38.3	61.0	39.0	60.8	39.2
Colombia	63.1	36.9	62.7	37.3	63.2	36.8	65.3	34.7
Costa Rica	71.0	29.0	70.4	29.6	69.3	30.7	70.6	29.4
Cuba	75.0	25.0	67.9	32.1	65.8	34.2	68.3	31.7
Chile	47.6	52.4	49.5	50.5	51.3	48.7	47.2	52.8
Ecuador	73.9	26.1	73.9	26.1	71.3	28.7	69.8	30.2
El Salvador	83.2	16.8	86.9	13.1	83.7	16.3	83.8	16.2
Guatemala	73.2	26.2	72.8	27.2	73.4	26.6	73.9	26.1
Guyana	85.7	14.3	72.3	27.7	67.4	32.6	69.8	30.2
Haiti	78.3	21.7	78.5	21.5	78.0	22.0	77.6	22.4
Honduras	75.4	24.6	75.9	24.1	74.4	25.6	75.7	24.3
Jamaica	66.6	33.4	66.9	33.1	68.2	31.8	67.6	32.4
Mexico	58.9	41.1	57.5	42.5	56.6	43.4	54.4	45.6
Nicaragua	71.9	28.1	71.3	28.7	71.4	28.6	71.5	28.5
Panama	74.4	25.6	74.2	25.8	72.3	27.7	72.6	27.4
Paraguay	67.1	32.9	66.9	33.1	63.3	36.7	63.6	36.4
Peru	72.2	27.8	69.9	30.1	66.1	33.9	65.4	34.6
Dominican Republic	75.2	24.8	74.4	25.6	74.2	25.8	72.0	28.0
Trinidad and Tobago	64.0	36.0	59.9	40.1	57.8	42.2	54.5	45.5
Uruguay	34.2	65.8	34.9	65.1	33.8	66.2	38.3	61.7
Venezuela	51.9	48.1	49.4	50.6	46.4	53.6	47.3	52.7
Latin America	62.5	37.5	62.4	37.6	61.0	39.0	61.8	38.2

Source: Data prepared by the Joint ECLA/FAO Agriculture Division with basic information from FAO.

/Table 18

Table 18

LATIN AMERICA: ANNUAL RATES OF GROWTH OF THE GROSS PRODUCTION  
VALUE OF CROPS, LIVESTOCK AND AGRICULTURE,  
1960-1970 AND 1970-1973

(Percentages)

Country	Crops		Livestock		Agriculture	
	1960- 1970 a/	1970- 1973 b/	1960- 1970 a/	1970- 1973 b/	1960- 1970 a/	1970- 1973 b/
Argentina	4.1	3.7	1.6	-1.0	2.9	1.5
Barbados	-0.4	-5.4	3.1	1.7	0.3	-3.6
Bolivia	3.2	4.9	4.3	3.2	3.5	4.4
Brazil	3.5	4.4	4.0	4.7	3.7	4.5
Colombia	3.1	3.8	3.5	0.1	3.3	2.5
Costa Rica	5.8	4.4	7.3	5.1	6.2	4.6
Cuba	1.6	-0.4	4.4	2.0	2.4	0.3
Chile	2.8	-3.3	3.4	-2.8	3.1	-3.0
Ecuador	3.4	-2.0	4.0	4.0	3.5	-0.4
El Salvador	3.9	1.6	3.3	4.2	3.8	2.0
Guatemala	4.7	4.6	4.5	3.2	4.6	4.2
Guyana	0.5	2.6	9.8	24.0	1.7	6.7
Haiti	0.8	2.9	4.8	3.0	1.5	2.1
Honduras	4.2	5.2	3.7	4.7	4.1	5.1
Jamaica	0.9	2.1	7.6	0.5	2.6	0.7
Mexico	5.6	-0.4	4.6	5.7	5.2	2.2
Nicaragua	4.9	2.7	5.5	4.6	5.1	3.2
Panama	5.4	0.3	4.8	4.5	5.2	1.4
Paraguay	6.0	-0.1	1.2	3.8	4.1	1.3
Peru	2.4	-1.7	5.7	7.4	3.3	1.1
Dominican Republic	1.1	2.4	4.1	7.2	1.8	3.7
Trinidad and Tobago	0.1	-3.7	13.7	7.7	3.2	0.9
Uruguay	1.3	4.6	0.9	-2.5	1.0	0.1
Venezuela	3.5	0.6	6.6	5.4	4.9	3.0
Latin America	3.5	2.4	3.8	3.1	3.6	2.4

Source: Joint ECLA/FAO Agriculture Division.

a/ 1959-1961 and 1969-1971

b/ 1969-1971 and 1973.

/The evolution



The evolution of the most important items of production at the regional level is analysed below under the head of crops and livestock items. The analysis of each product covers the period 1970-1973, when information on output was available, separately from the agricultural year 1973/1974 (i.e., the 1974 harvest), for which there are only estimates. Strictly speaking, the 1974 harvest could be left out because of the inadequacy of the data available, but in fact the very special circumstances in which the agricultural markets, particularly the export markets, find themselves were revealed in full during that agricultural year, with the result that although there is a risk of errors or omissions, it has been decided to include that year.

#### 6. Trend of crops

As has just been pointed out, crops represent almost two-thirds of the gross value of agricultural production; of these, a small group make up approximately 75 per cent of the total gross value of crops. The ten most important products are listed below, together with their share of the gross value of production of all crops at 1969 producers' prices.

	1973 (percentages)
1. Maize	14.7
2. Sugar cane	12.5
3. Coffee	8.6
4. Bananas and plantains	7.0
5. Rice	6.9
6. Cotton	6.6
7. Wheat	5.3
8. Beans	4.5
9. Manioc	3.8
10. Potatoes	3.5
Other crops	26.6
<u>Total</u>	<u>100.0</u>

/The three

The three most important crops in the region are maize, sugar cane and coffee, in that order. The relative position of each of the ten most important crops would possibly have been quite different if the calculations had been based on the prices paid to the producer in 1973 or 1974, since there have been very substantial changes in the relative prices of agricultural products.

Three cereals (maize, rice and wheat) are among the ten major crops of the region and represent 26.9 per cent of the gross value of production. The average annual increase in the production of the group of cereals, for a number of reasons which will be dealt with separately in connexion with each crop, was 2.2 per cent for the period 1970-1973, as opposed to the much higher figure (4.9 per cent) during the 1960s.

The growth rates of maize, rice and wheat were considerably lower in the period 1970-1973 (see table 19). Maize is in a similar situation to that of agriculture in the region as a whole, in that most of it is produced by the three main agricultural countries (Brazil, Mexico and Argentina), which together produce 85 per cent of the total volume harvested in the region. As this applies to several crops, reference will as far as possible be made to the production of countries whose crops, while not particularly large in regional terms, may however be highly important for their domestic economies or for the domestic food supply.

Of the 26.4 million hectares of maize grown in the region in 1973, 22 million were to be found in the three countries referred to above (see table 20). In Brazil, the yield has been fairly stable at around 14 metric quintals per hectare; production of maize has been increased by extending the area under cultivation. In Argentina and Mexico, the most important factor in the expansion of production would seem to be an improvement in the yield. In any case, with the relative exception of Argentina, yields are very low considering the know-how that is available in respect of genetic improvements and fertilization.

Table 19

LATIN AMERICA: ANNUAL RATE OF INCREASE IN THE GROSS VALUE OF  
THE PRODUCTION OF CROPS, 1960-1970 AND 1970-1973 a/

	Rate of variation	
	1960-1970	1970-1973
<u>Cereals</u>	<u>4.9</u>	<u>2.2</u>
Maize	4.5	1.8
Rice	4.0	2.5
Wheat	6.5	0.2
Others	6.2	6.6
<u>Roots and tubers</u>	<u>3.9</u>	<u>1.0</u>
Yucca	4.9	2.8
Potatoes	3.4	-1.1
<u>Pulses and vegetables</u>	<u>3.2</u>	<u>3.1</u>
Beans	2.6	2.8
<u>Sugar products</u>	<u>2.9</u>	<u>3.5</u>
Sugar cane	2.8	3.7
<u>Fruit</u>	<u>4.0</u>	<u>2.5</u>
Bananas and plantains	4.9	3.2
<u>Beverages and tobacco</u>	<u>0.2</u>	<u>-0.1</u>
Coffee	-0.4	0.1
<u>Vegetable fibres</u>	<u>2.2</u>	<u>2.7</u>
Cotton <u>b/</u>	2.2	2.6
<u>Oilseeds <u>c/</u></u>	<u>5.1</u>	<u>10.5</u>
<u>Total crops</u>	<u>3.4</u>	<u>2.6</u>

Source: Joint ECLA/FAO Agriculture Division.

a/ 1960 was taken as representing the average for 1959-1961.  
1970 was taken as representing the average for 1969-1971.

b/ Including cotton seed.

c/ Excluding cotton seed.

Table 20

LATIN AMERICA: SURFACE AREA, YIELD AND PRODUCTION OF MAIZE  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1960-1962	1970	1973
<u>Latin America</u>			
Surface area	19 932	25 982	26 432
Yield	1 210	1 467	1 513
Production	24 116	38 107	39 982
<u>Argentina</u>			
Surface area	2 639	4 017	3 565
Yield	1 791	2 330	2 721
Production	4 726	9 360	9 700
<u>Brazil</u>			
Surface area	6 972	9 858	11 000
Yield	1 305	1 442	1 394
Production	9 098	14 216	15 338
<u>Mexico</u>			
Surface area	6 073	7 419	7 520
Yield	988	1 219	1 263
Production	6 001	9 041	9 500

Source: FAO.

/In the

In the Central American and certain Andean countries, there has been no major change in the production techniques and yield of white maize, which is mainly intended for human consumption and a product of subsistence farming. Some progress has been made, however, particularly in the use of hybrid seeds and in the production of hard yellow maize, mainly produced by the commercial agriculture sector as cattle feed.

The regional production of maize in 1973 was 40 million tons, thanks to the generally fine weather which resulted in good harvests and permitted a recovery following the decline in production in 1972. The country which made the best recovery in this respect was Argentina, which produced 9.7 million tons in 1973 compared with 5.9 million in 1972. The production of maize in the region continued to increase in 1974 under the effect of the high prices on the world markets, which are estimated to have been at least 10 per cent higher than the previous year.

Two countries, Brazil and Argentina, enjoyed unprecedented harvests. Brazil has increased the area under cultivation considerably, as a result of which its production rose from 14.6 million tons in 1973 to 17 million tons in 1974 - an increase of 16.4 per cent. Following a sharp drop in 1972, when the harvest was 5.9 million tons, Argentina boosted its output to 10.2 million tons in 1974 - the largest harvest in the last thirty years. As a result, it was able to export around 5 million tons.

Mexico increased its production slightly, by about 5 per cent, to almost 10 million tons. However, it would still have to import approximately 1 million tons in order to meet domestic demand.

The production of other Latin American countries varied only slightly compared with previous years, except in the case of Venezuela whose production of maize, which had been declining for several years, improved substantially with a jump from 400,000 tons in 1973 to 600,000 tons in 1974.

The region's production of rice, which was 11.6 million tons in 1970, has remained more or less stable, the 1973 harvest being equal to this figure (see table 21). Because of the volume of its harvest, any change in the output of Brazil, which produces two-thirds of the regional total, is reflected in the overall figure, as happened in 1971 when the country suffered

Table 21.

LATIN AMERICA: SURFACE AREA, YIELD AND PRODUCTION OF RICE  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1950-1962	1970	1973
<u>Latin America</u>			
Surface area	4 379	6 349	6 129
Yield	1 836	1 832	1 893
Production	8 042	11 632	11 603
<u>Argentina</u>			
Surface area	52	102	77
Yield	3 327	3 990	3 377
Production	173	407	260
<u>Brazil</u>			
Surface area	3 163	4 979	4 900
Yield	1 659	1 517	1 520
Production	5 248	7 553	7 448
<u>Colombia</u>			
Surface area	254	229	276
Yield	1 980	3 218	3 894
Production	503	737	1 050
<u>Cuba</u>			
Surface area	155	128	150
Yield	1 613	2 547	2 500
Production	250	326	375
<u>Mexico</u>			
Surface area	141	150	160
Yield	2 241	2 680	2 450
Production	316	402	392
<u>Peru</u>			
Surface area	85	140	103
Yield	4 176	4 129	4 146
Production	355	578	427

Source: FAO.

/a serious

a serious drought. Colombia, Cuba and Guyana are the only three countries which steadily increased their production in the 1970s, their annual average share of the total being 11.2, 9.3 and 6.8 per cent respectively. However, owing to the drop of 6.8 per cent in the rice output of Peru, 2 per cent in that of Mexico, 9.5 per cent in Ecuador and 12 per cent in Argentina, regional production remained at the same level between 1970 and 1973. With the exception of Colombia, Cuba and, to a lesser extent, Mexico, therefore, there has been no great variation in average yields (see table 21).

In 1974, the regional harvest should be slightly higher than in previous years, possibly reaching 12 million tons. Brazil's harvest was expected to be 6 per cent higher than in 1973. Colombia's production was up from 1.15 million tons in 1973 to 1.4 million in 1974 (an increase of 20 per cent) and Cuba's from 375,000 tons in 1973 to 390,000 tons in 1974. Argentina's production, after reaching its lowest point in 1973 with 260,000 tons, rose to 315,000 tons in 1974 (an increase of 22 per cent). There seems to have been a slight increase in the production of rice in Peru, while in Chile the 1974 harvest was the lowest of recent years.

More than half of the region's wheat is produced in Argentina. The combined production of Argentina, Brazil, Mexico and Chile accounts for 95 per cent of the regional harvest, which in 1973 was 11.9 million tons. Annual output, however, has fluctuated widely in the various countries. The drought suffered by Argentina in 1970 cut back the volume of the harvest to 4.9 million tons, a reduction of 40 per cent; thanks to better weather in 1972, the harvest for that year was 7.9 million tons. Owing to excessive rain and pests which ruined the production of the wheat-growing areas of Rio Grande do Sul, Santa Catarina and Paraná, Brazil's harvest dropped from around 2 million tons in 1970 and 1971 to 1 million in 1972. From an exceptionally good harvest of 1.4 million tons in 1971, Chile's output declined to 1.2 million in 1972 and 0.7 million in 1973, mainly for institutional reasons and, in lesser degree, owing to weather conditions. In Mexico problems regarding prices and production caused the output to drop from 2.2 million tons in 1970 to 1.7 tons in 1972, rising again to

/2 million

2 million tons in 1973. Fluctuations from year to year in the various countries compensated each other in such a way that production remained more or less stable. There were some variations in the yield, particularly in Mexico where the fact that the yield per hectare should have doubled in just a few years bears witness to the success of the so-called "green revolution". As a result, Mexico has been able to increase its harvest while reducing the area under cultivation (see table 22).

The regional harvest of wheat for the crop year 1973/1974 was more or less the same as in recent years. According to estimates carried out by the five principal producing countries, it was approximately 12.5 million tons. There was a sharp drop of about 20 per cent in the production of Argentina, owing to unfavourable weather during the pre-sowing and sowing period which led to a reduction of 24 per cent in the area sown. In 1974, Brazil, which is becoming a major supplier of wheat for its own domestic market, produced 2.7 million tons, a record crop 50 per cent higher than in 1973 (1.8 million tons). The reduction in Argentina's wheat output was offset by the increases in that of Brazil, Mexico (15 per cent over 1973) and Uruguay (52 per cent). In Chile, the 1974 crop represents only a partial recovery from the considerable drop in 1972, and, above all, in 1973. Altogether, the region will once again have to import about one-third of the wheat it consumes in 1974.

Progress has been made in the production of certain secondary cereals as animal feed, which has been rapidly expanding in the region in response to the favourable demand and prices. The most striking example is sorghum, production of which rose from 7.2 million tons in 1970 to 8.6 million tons in 1973. The large demand for forage cereals on export markets encouraged the extension of the area sown, particularly in Argentina where production increased at an annual rate of 10.5 per cent between 1970 and 1973. Production continued to expand in 1974 in Uruguay, Colombia, and above all, Argentina, which produces more than half of the region's total. Argentina's production of sorghum increased by 35 per cent in 1974 over the previous year, rising from 5 million to 6.7 million tons, and this enabled the country to boost its exports considerably. For the region as a whole, the 1974 harvest was more than 20 per cent higher than the year before.



Table 22

LATIN AMERICA: SURFACE AREA, YIELD AND PRODUCTION OF WHEAT  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1960-1962	1970	1973
<u>Latin America</u>			
Surface area	7 462	8 581	7 804
Yield	1 218	1 290	1 523
Production	9 092	11 072	11 886
<u>Argentina</u>			
Surface area	3 929	4 468	4 252
Yield	1 326	1 101	1 529
Production	5 208	4 920	6 500
<u>Brazil</u>			
Surface area	969	1 895	1 820
Yield	676	973	1 065
Production	655	1 844	1 938
<u>Chile</u>			
Surface area	790	740	534
Yield	1 285	1 766	1 399
Production	1 015	1 307	747
<u>Mexico</u>			
Surface area	808	723	596
Yield	1 670	3 065	3 322
Production	1 349	2 216	1 980

Source: FAO.

/The trend

The trend of roots and tubers has been fairly negative, since the annual average growth rate of production dropped from 3.9 per cent in the 1960s to a mere 1 per cent in 1970-1973.

The most important starchy roots are yucca and manioc, production of which has been steadily increasing to the point where they have become a staple food of the rural population in several Latin American countries, particularly in Brazil (which produces 85 per cent of the regional total), Bolivia, Colombia, Cuba, Ecuador, Haiti, Paraguay, Brazil and Venezuela. During the 1960s, production of yucca grew at an average annual rate of 4.9 per cent, declining to a mere 2.8 per cent between 1970 and 1973. The volume harvested has risen from 34.9 million tons to 38.1 million tons over this period, the biggest increases occurring in Brazil and Colombia. In Paraguay, however, the production of yucca declined sharply from 1.8 million tons to 1.2 million tons, owing apparently to its replacement by other commercial crops.

Production of potatoes declined by 1.1 per cent between 1970 and 1973, the figure for the region as a whole dropping from 9.7 million to 8.8 million tons during that period. The decline was mainly due to the drop in the production of Argentina (the largest producing country) which fell gradually from 2.3 million to 1.5 million tons. Smaller reductions took place in Colombia and Chile, while Peru, the second largest producing country, maintained its production at 1.9 million tons. The large increases in the output of Brazil failed to offset the reductions in the aforementioned countries. In Bolivia, where, in addition to being the basic food of the population, potatoes account for the largest share of the gross value of agricultural production, their contribution alone being 21 per cent, there has been a steady increase in the area cultivated (from 95,000 hectares in 1970 to 115,500 hectares in 1973), which has spread from the Altiplano and inter-Andean valleys to the eastern plains. The average yield, however, has declined.

/The most

The most important of the pulses is the bean, which makes up more than 90 per cent of the total value of this group. The growth rate of pulses has remained at much the same level as in the 1960s (2.6 per cent annually), rising to an average annual rate of only 2.8 per cent between 1970 and 1973.

The two main bean-producing countries are Brazil, with 2.4 million tons in 1973 (60 per cent of the regional total) and Mexico, with 900,000 tons (slightly over 20 per cent). There was little growth in the output of Brazil and a reduction in that of Mexico. In the other countries, the general tendency is one of fairly slow growth to meet domestic requirements.

Among sugar products, the average annual increase of 3.7 per cent in the production of sugar cane between the period 1970-1973 was an improvement on the 2.8 per cent of the previous decade (unlike the trend of most other crops). The regional output rose from an annual figure of 279 million tons <sup>15/</sup> in 1970 to 291 million tons in 1973. Following a sharp reduction in 1971 owing to the poor harvest in Cuba, the second largest producer of sugar cane in Latin America after Brazil, sugar production has risen steadily. Cuba's sugar-cane output dropped from 81 million tons in 1970 to 52.9 million in 1971 and 45 million in 1972, rising again slightly in 1973 to 55 million tons (see table 22).

Brazil has pursued a deliberate policy of expanding the production of sugar cane by increasing the area under cultivation and improving yield, thanks to which it was able to boost its output by an annual 9.2 per cent between 1970 and 1973. Another major producer of sugar cane is Colombia, which also increased the area under cultivation and its production. However, Argentina is the country which, relatively speaking, registered the largest increase in its sugar production which, thanks to an expansion of the area under cultivation and substantial improvements in yields, rose from 9.8 million tons in 1970 to 16 million tons in 1973, at an average annual rate of 16 per cent. To a lesser degree, Mexico, which is a major producer of sugar cane, increased its production also by improving the yield and extending the area under cultivation. The sugar output of Peru, which has the highest yield in Latin America, remained at more or less the same level during this period (see table 23).

<sup>15/</sup> Equal to approximately 27.9 million tons of centrifugal sugar.

Table 23

LATIN AMERICA: SURFACE AREA, YIELD AND PRODUCTION OF SUGAR CANE  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1960-1962	1970	1973
<u>Latin America</u>			
Surface area	4 237	4 884	5 588
Yield	50 701	57 310	52 026
Production	214 819	279 006	290 719
<u>Argentina</u>			
Surface area	224	192	286
Yield	43 924	50 521	55 944
Production	9 839	9 700	16 000
<u>Brazil</u>			
Surface area	1 391	1 752	2 200
Yield	42 856	45 521	46 364
Production	59 613	79 753	102 000
<u>Colombia</u>			
Surface area	292	338	364
Yield	46 007	50 148	47 536
Production	13 434	16 950	17 303
<u>Cuba</u>			
Surface area	1 183	1 461	1 200
Yield	42 643	55 428	45 833
Production	50 447	80 981	55 000
<u>Mexico</u>			
Surface area	362	546	560
Yield	57 652	61 447	65 179
Production	20 870	33 550	36 500
<u>Peru</u>			
Surface area	52	57	51
Yield	145 342	141 578	171 393
Production	7 624	8 068	8 743
<u>Dominican Republic</u>			
Surface area	159	151	161
Yield	59 767	61 675	65 839
Production	9 503	9 313	10 600

Source: FAO.

/Many other

Many other small producers, encouraged by the exceptionally high prices on the world market, made considerable efforts to increase their production and their exports, particularly Costa Rica, El Salvador, Guatemala and Bolivia.

Since 1972, sugar has become one of the fastest-growing products of Latin American agriculture and is receiving priority attention in the production programmes of the various producing countries, which are increasing the area under cultivation, introducing technical improvements and renewing the agro-industries associated with its production. Considerable progress is also being made in the nationalization of marketing machinery.

Provisional figures published prior to the end of the 1974 harvest indicate that Latin America's production may be 2 million tons - or 10 per cent - higher than in 1973. Of this additional amount, 1 million tons would be produced by Brazil; at the same time, a further recovery of production was expected in Cuba and record harvests would be obtained in Argentina, Mexico, Colombia and Peru and in some of the smaller producing countries. In the Caribbean, however, drought caused the biggest drop in production this century, particularly in Puerto Rico, Trinidad and Tobago, Barbados and Guadeloupe.<sup>16/</sup>

The most important fruit product is bananas,<sup>17/</sup> production of which is almost twice as large as that of citrus fruit - the next most important.

In regional terms, there has been a fairly substantial expansion in the production of bananas since 1970, from 21.2 million tons that year to 23 million tons in 1973. Of this additional amount of 1,800,000 tons, 1 million was produced by Brazil, the most important banana-producing country with one-third of the regional output, and Argentina, whose production increased rapidly by 350,000 tons between 1970 and 1973. Both countries registered a high annual rate of increase of production (36 per cent in Argentina and 4.7 per cent in Brazil) during the period indicated. The

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<sup>16/</sup> FAO, Commodity Review and Outlook, 1973-1974 (Rome, September, 1974).

<sup>17/</sup> Including plantains.

additional volume produced is used for import substitution purposes and to meet domestic demand. A similar trend took place in Bolivia, which has increased its production of bananas and plantains substantially in order to meet domestic demand. The other large producer which sells its production on the domestic market is Mexico, whose output has remained more or less stable at 1.1 million tons.

Of the exporting countries, Ecuador, the region's third largest producer and first exporter, which is responsible for about 25 per cent of Latin America's total exports of bananas, has been reducing the area under cultivation in the banana-growing area of Pinchincha and Esmeralda, where much of the produce was not being sold. At the same time, it has introduced a programme to improve the cultivation of bananas in the south of the country where new varieties 18/ have made possible significant increases in productivity. The result has been a reduction in the area under cultivation and a drop in production (4 per cent annually) during the period 1970-1973, without any decline in exports or domestic consumption. Exports have remained at about 1.4 million tons.

Of the Central American exporting countries, Honduras, the second largest exporter in the region - registered a sharp increase in production, which doubled during the 1960s and grew at an annual average rate of 7.2 per cent between 1970 and 1973. The third largest exporter, Costa Rica, almost tripled its production during the 1960s and maintained an annual growth rate of 4.3 per cent during the period 1970-1973. In both countries, yields have been much improved (see table 24). A similar trend occurred in Guatemala where a sharp increase in production during the 1960s was followed by a more moderate growth rate between 1970 and 1973. Panama's production, which doubled in the previous decade, experienced virtually no further growth in those three years.

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18/ A cross between Michel and Cavendish.

Table 24

LATIN AMERICA: SURFACE AREA, YIELD AND PRODUCTION OF BANANAS  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1960-1962	1970	1973
<u>Latin America</u>			
Surface area	868	1 199	1 218
Yield	13 667	15 900	16 631
Production	11 863	19 062	20 250
<u>Brazil</u>			
Surface area	196	278	285
Yield	5 495	23 050	25 614
Production	1 077	6 408	7 300
<u>Colombia</u>			
Surface area	50	59	62
Yield	10 980	13 335	13 387
Production	549	780	830
<u>Costa Rica</u>			
Surface area	24	39	36
Yield	17 667	29 468	33 138
Production	424	1 146	1 198
<u>Ecuador</u>			
Surface area	112	194	170
Yield	21 750	19 051	17 647
Production	2 436	3 688	3 000
<u>Honduras</u>			
Surface area	50	44	53
Yield	12 380	29 091	30 189
Production	619	1 280	1 600
<u>Mexico</u>			
Surface area	57	82	82
Yield	11 526	13 854	13 598
Production	657	1 136	1 115

Source: FAO.

/In the

In the second half of 1973 there was a recovery of production in Central America (Honduras, Guatemala, Panama) which had been affected by bad weather, and in the Caribbean which had been affected by the drought. This recovery continued during 1974, except in Honduras where a cyclone seriously damaged the country's banana economy. In Nicaragua and the Dominican Republic new plantations have begun production.

The dominant element in the banana situation of the region in 1974 is the plentiful supply in relation to demand, and the rise in the cost of production, since it is a crop which requires fertilizers and pesticides.

Coffee is the third most important crop in the region. Coffee production in the 1960s was deliberately cut down, in view of the abundance of supply and the low prices in the international markets. The total area planted in the region was reduced sharply during the 1960s - from an average of 7 million hectares between 1960 and 1962 to 5.1 million hectares in 1970 - owing to the depressive effect on production of the accumulation of surpluses and the low prices at the end of that decade, which led to the agreements on restricting production laid down in the International Coffee Agreement of 1968. Thus despite the price rises in the international markets, there has been no return to an over-investment which could again lead to surplus production. Despite the subsequent suspension of the economic stipulation in the Agreement, exaggerated investment in this item which could lead to the extreme surplus situations which occurred in previous decades is not expected (see table 25).

The coffee policy of Brazil, the main producer, which led to a large reduction in the area planted (from 4.4 million hectares on average during the period 1960-1962 to 1.9 million in 1973), has resulted in a relatively limited output vis-à-vis domestic and external demand. A special effort is noted as from 1970 to renew plantations and increase planting which makes it possible to anticipate a moderate increase in Brazil's output over the next few years.

Colombia, the second largest producer of coffee in the region, has slightly reduced the area under coffee, from 850,000 hectares at the beginning of the 1960s to 820,000 in 1973. The remaining producer countries have slightly increased the area given over to coffee.



Table 25

LATIN AMERICA: SURFACE, YIELD AND PRODUCTION OF COFFEE,  
IN THE REGION AND IN THE MAIN PRODUCING COUNTRIES

(Thousands of hectares, kilogrammes per hectare  
and thousands of tons)

	1960-1962	1970	1973
<u>Latin America</u>			
Surface area	7 012	5 149	4 639
Yield	476	437	539
Production	3 339	2 249	2 501
<u>Brazil</u>			
Surface area	4 422	2 403	1 900
Yield	479	314	540
Production	2 119	755	1 026
<u>Colombia</u>			
Surface area	850	830	820
Yield	554	687	629
Production	471	570	516
<u>Ecuador</u>			
Surface area	141	219	230
Yield	340	356	313
Production	48	78	72
<u>El Salvador</u>			
Surface area	126	120	130
Yield	817	1 075	1 031
Production	103	129	134
<u>Guatemala</u>			
Surface area	231	265	265
Yield	459	502	498
Production	106	133	132
<u>Mexico</u>			
Surface area	308	355	329
Yield	432	518	593
Production	133	184	195

Source: FAO.

/Regional production

Regional production declined from 3.3 million tons at the beginning of the 1960s to around 2.6 millions in 1972 and 1973. Generally speaking, considerable variations may be seen in annual coffee production between one harvest and another. In 1970, it was exceptionally low after almost a 20 per cent drop owing to poor harvests in Brazil caused by sharp frosts, drought and diseases (mildew). Although the 1971 harvest was down in Colombia (with losses of 9 per cent), Ecuador (15 per cent) and Guatemala (12 per cent), for the region as a whole it was an improvement of over 30 per cent on 1970, owing to the fact that the Brazilian harvest doubled compared with the previous year.

In 1972, there was again a decline in Brazilian production caused by the frost, which not only affected that year's harvest but also the 1973 harvest which was considerably reduced. The vulnerability of the coffee plantations to weather conditions causes large-scale annual variations in the total volume harvested in the region.

Despite the price increase of cotton fibre in the international markets, the cotton crop has not reacted as noticeably as other items of production up against similar situations. The low prices during the 1960s and particularly in the last years of the decade recovered slightly as from 1970 and reached fairly high levels as from 1973. The area under cotton has not been increased; rather on the contrary it was even reduced in 1973 compared with 1970. The harvest has remained at around 5 million tons of unginned cotton.

The responses to the more favourable prices have been very different according to the country. It could be said that the countries with the rather smaller volumes of output have increased their cultivation areas and their harvests. This is the case in Nicaragua which has expanded its cotton production considerably, and, to a lesser extent, in Guatemala and El Salvador. In South America, Bolivia and Paraguay did the same. Mexico, Argentina and Peru, traditionally important cotton producers, have reduced their growing areas compared with the first years of the 1960s. Brazil and Colombia, however, have expanded them, but like the rest of the producer countries they are experiencing increases in the costs of production which makes the future of this crop uncertain.

/To sum

To sum up, the cotton crisis of the 1960s, the rise in production costs owing to the large quantity of pesticides and fertilizers required for this crop, and the insecurity as regards future prices, has taken the form of slow growth in regional cotton output, despite the improved world prices.

In 1974, four of the main cotton-producing countries, which in the period 1969 to 1971 accounted for over 75 per cent of regional production, suffered a decline in output. In Brazil, despite the considerable increase in the growing area and production in the north, this was not sufficient to offset the reduction in the growing area of the southern states. In this latter region, cotton-growing, the cost of which has risen considerably, was replaced by other more rewarding crops like the soybean and maize; the heavy rain also affected the yield and the quality of the harvest. A similar phenomenon affected the harvest in Argentina. Thus, despite the increase in the area planted, the rain and the damage caused by insects resulted in a considerable drop in production. In Brazil the production of raw cotton will have declined by around 7 per cent and in Argentina by approximately 14 per cent.

Another major producer - in this case - also cut down its output this year (1974) by around 16 per cent, since the area planted was reduced on account of competition from other more profitable crops. In Colombia, events were similar to those in Brazil: the growing area was increased along the coast, but was reduced in the central zone owing to competition with other crops, which meant a reduction of the total growing area by 11 per cent; despite this production only declined by 5 per cent since yields were good.

The Central American cotton-growing countries - Nicaragua, Guatemala and El Salvador - unlike the major producers, show notable increases in output: 40 per cent in Nicaragua, 20 per cent in Guatemala and 7 per cent in El Salvador compared with the 1973 harvest. In South America, Peru achieved an increase of over 22 per cent compared with the previous season. These increases, however, although notable in some cases like those of Nicaragua and Peru will not be sufficient to offset the decline observed in other countries. The region, which generates around one-eighth of world output and around 25 per cent of world exports, was expected to have a slightly smaller production (possibly 2 per cent) than 1973, when regional

/output recovered

output recovered from the considerable decline of 1971, as a result of the rise in world prices. Future prospects for production are uncertain since as from April 1974 cotton prices in the international markets declined and production costs rose rapidly.

Although no oil-producing crop is among the ten crops accounting for most of the gross production value of crops as a whole, some should be mentioned in view of their development in recent years. This was the most dynamic group of crops during the 1960s and they have continued their considerable expansion (see table 19). Their average annual growth rate between 1970 and 1973 was 10.5 per cent. The oilseed crop of most note for its rapid growth is the soybean. It has a high oil content (16 per cent) and the soya cake is also rich in proteins; both these items have had large price increases in the international markets. The increase in the price of oil was due to the shortage of supply for the international markets, particularly for immediate delivery. The radical cutting-down of supplies of fishmeal in turn sparked off the increase in price of oilcake for animal feed.

In 1970 1.5 million hectares were devoted to cultivating the soybean, with an increase to 5.2 million hectares in 1974. The major part of this increase was accounted for by Brazil which increased its sown area from 1.3 million hectares to 4.5 million. Argentina and Mexico also increased considerably the area given over to this crop.

#### 7. Trends in livestock production

As was the case with the agricultural sector as a whole, 80 per cent of livestock production was also concentrated in six countries. Brazil, Mexico and Argentina accounted for 64.5 per cent of the gross production value of livestock. Colombia, Venezuela and Cuba followed with other 15 per cent approximately. This fact should be borne in mind in the regional analysis, since there is a risk that the regional total reflects to a large extent the situation of the countries, or only one of them, as is the case of beef production.

/The products

The products which accounted for most of the gross production value of livestock in 1973 are listed below, together with their percentage share.

Beef	31.8
Milk	27.4
Pork	14.1
Eggs	13.2
Poultry	9.2
Wool	2.2
Mutton	1.2
Others	0.9
<u>Total</u>	<u>100.0</u>

Cattle-raising contributes around 60 per cent, including beef and milk.

Livestock production has grown more rapidly than crops and more regularly. The average annual rate of growth for the 1970s (3.1 per cent) was slightly lower than during the previous decade (see table 26).

It is essential to make it clear that the estimate of the gross production value of livestock has not included the changes which have taken place in the stocks or total livestock; only meat products and sub-products and the production of milk, wool and eggs have been included in the estimate. This explains to a large extent the discrepancies in figures for the growth of the agricultural sector depending on whether the evaluation of such changes in livestock inventories or stock is included in the estimate or not.

In Argentina a decline of about 1 per cent and in Uruguay a drop of 2.5 per cent took place in livestock production over the years 1970-1973. In both countries, most of this is beef, which in Argentina dropped by 7.6 per cent annually between 1970 and 1973, while in Uruguay it declined by 10.5 per cent. This situation would, however, appear diametrically different if the changes in cattle stocks were included. In Argentina, for example, in 1969-1971 average stocks of beef cattle were 48.8 million head, and this increased to 54.8 million in 1973. The slaughter of Argentinian cattle dropped from 12.1 million - the 1969-1971 average - to 9.8 million head in 1973, which meant a reduction of around 500,000 tons of carcass meat. The slaughter rate dropped from 24.8 to 17.9 per cent in the period mentioned.

Table 26

LATIN AMERICA: ANNUAL RATES OF INCREASE IN GROSS PRODUCTION  
VALUE OF LIVESTOCK PRODUCTS, 1960-1970 AND 1970-1973 a/

	Rates of variation	
	1960-1970	1970-1973
<u>Meats</u>	<u>3.7</u>	<u>2.7</u>
Beef	3.1	0.8
Pork	3.4	5.4
Poultry	8.5	6.7
Mutton	2.3	-2.4
<u>Other livestock products</u>	<u>3.7</u>	<u>3.5</u>
Milk	3.4	3.5
Eggs	5.7	4.9
Wool	-0.1	-2.1
Cattle hides	3.6	0.5
<u>Total livestock products</u>	<u>3.7</u>	<u>3.1</u>

Source: Joint ECLA/FAO Agriculture Division.

a/ 1960 was considered as the average for 1959-1961, and 1970 the average for 1969-1971.

/If in

If in 1973 Argentina had again repeated the slaughter rate of the years 1969-1971 (24.8 per cent), instead of a drop in production of an annual average of 7.6 per cent in the period 1970-1973, there would have been an annual increase of over 3 per cent.

When the killing or slaughter of beef cattle is used to measure production, as has been done in the present report, mention must be made of the present period reached in the livestock cycle, traditionally found, for example, in the cattle-raising industries of Argentina, Uruguay or Colombia. In Argentina, 1969 was a year of large-scale cattle slaughtering. The next year slaughtering was moderate with no decline in stocks, while between 1971-1973 the slaughtering period was very short because the females were kept back. The excellent conditions of external demand stimulated and stepped up the reservation of females to recover and increase the capacity of production.

The case of Uruguay was somewhat similar, since while cattle stock increased from 8.72 million head - the 1969-1971 average - to 9.86 millions in 1973, slaughtering dropped from 1.51 to 1.37 million head and the production of carcass meat dropped from 326,000 to 307,000 tons. This also means that stock was held back and advantage taken of the favourable conditions which then existed in the international markets; the slaughter rate dropped from 17.3 to 13.9 per cent.

These two examples explain the difficulty of making an adequate evaluation of livestock production and then comparing the growth of the gross production value of agriculture with figures for the gross domestic product for agriculture. The changes in the slaughter rate, which are to a large extent accounted for by the stock-raising cycles, take place particularly in countries where the livestock industry is very closely connected with the export markets (countries of the Plate Basin and Colombia), and are much less evident and almost non-existent in the livestock industries destined for the domestic market, which together with a constant rate of increase in stocks record increases in production (slaughter of cattle).

For a more complete panorama of events in livestock production, a rapid glance at the most important items of production is given below.

/It is

It is interesting to note that the annual 3.1 per cent increase in regional livestock production was not due to the increase in the production of beef, which accounts for over 35 per cent of the gross production value of livestock, and which underwent practically no change during 1970-1973 (an annual increase of 0.3 per cent), but to other items like milk, poultry meat and pork and eggs. This slow growth rate is basically due to the decline in production in Argentina and Uruguay, which produce 40 per cent of the region's beef.

Brazil, which possesses the largest cattle population in the region - 75.4 million head in 1970 and 85 million in 1973 - achieved an annual increase of 6.9 per cent in the production of beef, both because of the notable increase in stocks and because of the progress made in modernizing its livestock-farming (in particular in the centre and south of the country). The beef industry in Paraguay also shows important increases in production (5.4 per cent annually). Several Central American countries, stimulated by the attractive condition of the export markets, have been intensifying and improving their beef output. Noteworthy among these have been Costa Rica (5.8 per cent annually between 1970 and 1973), El Salvador (14.5 per cent), Honduras (8.2 per cent) and Nicaragua (4.9 per cent). In the Caribbean areas, the Dominican Republic stands out with 6.8 per cent.

All these advances were not, however, sufficient to offset the decline in the slaughter of cattle in Argentina, Colombia and Uruguay. The cattle industry in Colombia followed a very similar course to that of Argentina and Uruguay: a large increase in stock, and a drop in the slaughter rate (12.6 per cent in 1971 and only 10.7 per cent in 1973) and hence in the number of head of cattle slaughtered.

The growth of the world meat trade, which had slowed in 1972, came to a standstill in 1973. In that year average prices for cattle achieved unprecedented levels, although in the last quarter of the year there was a slackening in prices which continued into 1974. The most outstanding fact recorded in the meat markets of the majority of the main net importing countries was the rapid change from a situation of scarcity to a situation of relative excess in supplies and even of surpluses, at the consumer prices in force. At the beginning of 1974, the only exception was mutton.<sup>19/</sup>

<sup>19/</sup> FAO: Commodity Review and Outlook, 1973-1974, Rome, 1974.



The unprecedented increase in cattle herds in all the main producer and consumer areas, following years of persistent growth, will lead to further increases in supply during 1974 and possibly 1975, until the necessary readjustment in the herds has taken place.

In the case of the European market, the situation of plentiful supply has been cited among other reasons for the crisis affecting the pig industry as a result of the classic cycle of this activity, which has resulted in an excess supply of pork. Furthermore, many producers have had to leave beef production, since present prices and the increase in costs (especially for feed) make remunerative production difficult. In turn, the increases in supplies of red meats, have produced a decline in prices and aggravated slaughtering, all of which suggests that the marginal increase of domestic supply will more than cover that of demand.

In view of this situation, the importing countries of Europe adopted numerous government measures dealing with trade (common external tariff and reference prices in the European Economic Community) with a view of stabilizing domestic markets and safeguarding producers' profits. If these restrictions remain in force during 1974 or for a longer period, it is very possible that the world meat trade may decrease.

In Latin America satisfactory grazing conditions stimulated a new increase in cattle herds in 1973. Large-scale progress in production in Central America, Brazil and Mexico was observed.

Production prospects in the region for 1974 are generally good, especially in Argentina where the constant growth of the herds has still not been reflected in proportional increases in meat production. Favourable grazing conditions show that livestock production in Mexico and Central America will continue to increase.

The production of poultry meat and pork will be conditioned by Latin America's probable excess supply of beef, since everything goes to show that it will not be easy to place the normal quantities which were exported in the traditional markets, particularly in Europe. Thus, for example, Argentina's exports to the EEC in the first quarter of 1974 were 65 per cent less in quantity than for the same period in 1973.

/Milk production,

Milk production, which in the 1960s had been growing at the same rate as beef production - 3.2 annually - unlike the latter improved its growth rate between 1970 and 1973 when it reached an annual rate of 4.1 per cent. From the 23.1 million tons which the region produced in 1970, production increased to 26.6 million in 1973. The countries which most contributed to this growth were in the first place Argentina where output increased from 4.2 million tons in 1970 to 6 million in 1973, i.e., an annual increase of 10 per cent, compared with a rate of only 1.4 per cent for the 1960s. It is followed by Venezuela (6.5 per cent annually) which maintained a high growth rate in milk production, although it was rather lower than during the previous decade (7.4 per cent annually). With rather lower growth rates - around 3 per cent - Brazil and Mexico continue to expand their milk production. The two countries contribute nearly half of regional output. In other countries, Colombia and Chile particularly, milk production has practically not varied.

Although milk production in Latin America has grown at the rates indicated above, the region continues to be a net importer of milk products. This is one of the items of livestock production in which there is most contrast between an obviously inadequate production and high potential which the region possesses and should make better use of. Output per dairy cow is extremely low; in twelve countries, which account for around 70 per cent of the total dairy cows in the region, annual output per cow is not as much as 1,000 litres, and in only three out of the 24 countries considered is it more than 1,200 litres. Production potential here is considerable, since annual averages of more than 2,500 litres are not difficult to achieve with minimum technology and organization in the dairy farms. It should also be borne in mind that around 22 per cent of the adult female cattle existing in the region are used for milk.

It is estimated that in 1974 regional output will continue its traditional slow growth with the exception of Argentina which in 1973 achieved growth rates of around 10 per cent, and may possibly maintain a similar rate in the future.

/The region

The region is heavily dependent on imports for its supplies of milk and milk products. Brazil has joined the traditional importers - Chile, Cuba, Peru and Mexico (which recently increased their imports considerably) - as a large-scale purchaser.

Poultry-breeding is another livestock item of particular importance in the region. It contributes 22 per cent of the gross production value of livestock farming and around 8 per cent of the gross production value for agriculture in the region. Poultry production has proved relatively dynamic since the 1960s, particularly following the installation of modern poultry-farms, many of them integrated and of a size which makes it possible to make the most of the advantages of the economy of scale. Generally speaking, they have developed under the protection of a growing domestic market and special efforts which the countries have been obliged to make in order to develop substitute beef products, either so as to devote larger quantities of this product to exports or to cut down on costs of importing red meats.

The countries which have recorded a notable increase in their production of poultry are Argentina, Venezuela, Peru, Chile, Ecuador, Costa Rica and Nicaragua.

In some countries, temporary situations of excess supply have put poultry producers in a critical situation, especially in the case of the smaller producers who do not have adequate equipment for conservation or refrigeration. In these cases vertical integration in the form of different types of association or poultry-breeding complexes have made it possible to mitigate the effects and provide stability to small and medium producers. It has been observed that where these forms of association do not exist, concentrations in poultry production occur owing to the depression in the poultry cycles, and on occasions have had adverse effects of social nature.

Generally speaking, the progress of poultry production in several countries constitutes a good example of the rational use of advanced technologies.

/Egg production

Egg production, which during the 1960s had been growing at an annual rate of 5.6 per cent, continued to increase at a fairly high rate (approximately 5.2 per cent annually) between 1970 and 1973. Regional production of about 800,000 tons of eggs in 1960 rose to 1.5 million tons in 1970 and 1.7 million in 1973.

The production of poultry meat has also grown at fairly rapid rates, (around 6.7 per cent between 1970 and 1973); the annual growth rate for the previous decade, however, was 8.5 per cent. Between 1970 and 1973, regional production of poultry meat increased from 1 million to 1,224 million tons.

Large-scale progress has also been recorded in pig production. Last decade, output of pork increased at an annual rate of 3.4 per cent. This rate increased during the period 1970-1973 to reach 5.3 per cent. Genetic improvement and the introduction of new breeds, progress in the handling of units of production and especially aspects of feeding and health care have made possible large-scale increases in pork-production. As was the case with poultry-production, pig-production in several countries has been stimulated with a view to replacing the consumption of beef. Among the producer countries which have achieved fairly notable increases is Argentina, where production grew at a rate of around 11 per cent annually between 1970 and 1973, followed by Uruguay with 8.9 per cent, Trinidad and Tobago with 8.8 per cent, Colombia with 8.5 per cent, Bolivia with 7.0 per cent, Mexico with 6.5 per cent, Chile with 6 per cent and Guatemala with 4.9 per cent annually.

As regards carcass meat, regional production exceeded 2 million tons in 1973, compared with 1.7 million in 1970. Like poultry, the pig economy shows very marked cycles of production, which are particularly serious for the small-scale producers.

In the majority of the countries of the region, the major increases in production originated in large-size integrated enterprises, which have agro-industrial equipment for the manufacture of their own inputs and for the processing of sausages and other subproducts.

/The development

The development of poultry and of pork production has made it possible to diversify consumption of meat and to increase the stock of proteins of animal origin available locally. They also assist in making a better use of subproducts coming from the processing of other agricultural products, such as oilcake and the subproducts deriving from the processing of cereals.

Sheep production, which includes both meat and wool, accounts for barely 3.4 per cent of the gross production value of livestock in the region, and slightly over 1 per cent of the gross production value of agriculture as a whole.

Generally speaking, and since the 1960s, sheep production has been declining owing to a large extent to the decreasing trend in wool prices.

In 1961, the stocks of the main Latin American producer countries were 110 million head, of which 49 million were concentrated in Argentina and 22 million in Uruguay. These stocks have been decreasing slowly and reached their lowest point in 1972. In Argentina, they declined from 49 to 40 million and in Uruguay from 22 to 15 million head of sheep. The only country which has increased its stock is Brasil, owing to the fact that its production is to a very large extent aimed at the local market.

As from 1973, however, a very slight increasing tendency in the sheep population may be observed, particularly in Argentina, while this tendency is almost non-existent in Uruguay, owing to the rise in international wool prices. A short-term return to the levels of the early 1960s, does not seem possible, owing to the fact that many sheep-farms were converted to other more rewarding types of production, like cattle-farming or cultivation of oil-seeds.

As a result of the reduction in stocks, there has been a sharp decline in the production of mutton and of wool. Regional production of mutton achieved in 1973 its lowest level of only 405,000 tons, following 461,000 in 1971. Regional production of wool reached its lowest point in 1972 (298,000 tons), although it has shown a slight recovery in 1973, when it reached 305,000 tons as a result of the improvement in the prices paid in the international markets.

### 8. Fishing activity

Besides those resources that are being fully exploited, such as the anchoveta, the Southeastern Pacific hake, the Brazilian lobster, the schools of shrimp in a number of areas and various other local species, the waters off the coasts of Latin America contain fishing resources with considerable potential, which could be exploited much more intensively than at present. However, in order to do so it would be necessary to improve present methods of production, infrastructure and distribution facilities and also to develop manpower training programmes.

Production for human consumption was 1.5 million tons in 1971, i.e., an increase of 67 per cent compared with 1961. One positive fact is that within this total, shellfish have doubled their share, to a point where, together with tuna, they form the basis for valuable exports to North America, Europe and Japan.

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 27 shows some important aspects of the exploitation of fishery resources in Latin America. In the northern region, much of the catch, particularly 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. The estimated potential annual catch is immensely higher than the actual landings throughout the region, with the exception of the Southeastern Pacific, where the maximum limit of exploitation has virtually been reached.

In per capita consumption, the Latin American average is below the world average. Appreciable variations between the countries of the region do indeed exist, but the general consumption of fishery products 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 the distribution channels and in some countries the comparatively lower prices of red meat and poultry. Despite these limitations a favourable attitude towards fish consumption is believed to exist in the region.

Table 27

LATIN AMERICA: CATCHES IN 1971 AND ESTIMATED POTENTIAL OF FISHING GROUNDS

Fishing grounds	Total (thousands of tons)	Catch		Estimated potential (thousands of tons) <u>a/</u>
		Countries of the region (thousands of tons)	Per- centages	
ATLANTIC				
Western-Central (Mexico, Central America Caribbean)	1 620	422	26	7 260
ATLANTIC				
South-Western	700	656	94	10 110
PACIFIC				
Eastern-Central	850	503	59	4 860
PACIFIC				
South-Eastern	11 720	11 712	100	12 680
<u>Total</u>	<u>14 890</u>	<u>13 293</u>	<u>89</u>	<u>34 910</u>

Source: FAO, 1973.

a/ The estimated potential catch includes appreciable quantities of fish caught at the same time as shrimp and currently not used.

/The canning

The canning industry is very unevenly developed in the different countries owing to the high cost of cans. The efficiency and productivity of most of the plants in the region is restricted by the irregular supply of good-quality raw materials.

#### 9. Forestry activity

Sawnwood production rose from 16.2 million cubic metres to 18.2 million cubic metres 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. Local demand grew at a slightly lower rate than production, thus increasing the exportable balance from 550 thousand to 700 thousand cubic metres between 1970 and 1972; this figure 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 2.3 million cubic metres. 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 of forest resources of many areas have continued and 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 hectares per year from then until 1985. Unfortunately, the average reforestation rate over the past five years has been barely over half of the targets mentioned and three-quarters of the total reforestation has taken place in Brazil.

/The positive



The positive aspects include advances in forest management in countries like Argentina, Brazil, Chile, Colombia, Costa Rica and Paraguay, where national parks are being set up on the basis of forest 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 began 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.

Work was 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 on community development.

Some forestry establishments in the region and schools for foresters and technical engineers were strengthened. Training programmes for forestry technicians and teachers were implemented in subjects such as sawmilling, the management of national parks and woodland areas and watershed management. The 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 new 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.

Nevertheless, 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. Suffice it to say that 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.

## D. USE OF FACTORS OF PRODUCTION AND INSTITUTIONAL ASPECTS

### 1. Land

Increasing the area of land under cultivation has been the traditional means, in Latin America, of increasing agricultural output. The number of hectares harvested in the early years of the past decade, average period 1959-1961, increased from 69.3 million to 93 million in 1974.

The rate of expansion of the area under cultivation <sup>20/</sup> is a function of market conditions, particularly those related to demand and prices, and depends, in the main, on the growth cycle of each crop, on whether there is any suitable spare land, and on prevailing climatic conditions. Following the accelerated expansion of the area of land under cultivation which occurred during the first five years of the 1960s, when the area under cultivation increased by 9.3 million hectares (2.6 per cent per year), subsequent increases were moderate, owing, particularly, to problems caused by drought; only 5.5 million hectares being added during the second five-year period of the 1960s (1.3 per cent per year).

In 1970 and 1971, the rate of expansion continued to be moderate. In 1972, because of drought and other adverse climatic conditions, there was practically no change in the area under cultivation.

However, in the closing months of 1972 the rate of expansion picked up again, particularly for short-cycle crops with good export prospects. The rate continued to accelerate in 1973 and 1974, reaching levels unknown in the last fifteen years. During the crop year 1973/1974, the area under cultivation increased by more than 5 million hectares; increasing from 87.7 to 93 million, an increase of 6.1 per cent per year. Between 1970 and 1974 the increase was 9 million additional hectares (see table 28).

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<sup>20/</sup> The phrase extension of the area under cultivation, is understood to mean both the incorporation of new land, i.e., bringing marginal land under cultivation, and the redistribution of crops, the use of natural grasslands and the planting of multiple or combined crops, etc.

Table 28

LATIN AMERICA: AREA HARVESTED, 1959 TO 1974

Country	Area harvested (thousands of hectares)					Indexes (1959-1961 = 100)			
	1959- 1961	1964- 1966	1970	1973	1974	1964- 1966	1970	1973	1974
Argentina	14 498	14 745	15 232	15 687	15 655	101.7	106.1	108.2	108.0
Barbados	22	22	23	22	22	100.0	104.5	100.0	100.0
Bolivia	613	680	771	771	888	110.9	125.8	125.8	144.9
Brazil	25 152	29 441	33 906	36 662	40 971	117.1	134.8	145.8	162.9
Colombia	3 192	3 546	3 580	3 804	3 997	111.1	112.2	119.2	125.2
Costa Rica	321	401	352	351	358	124.9	109.7	109.3	111.5
Cuba	1 710	1 679	2 026	1 810	1 817	98.2	118.5	105.8	106.3
Chile	1 544	1 424	1 425	1 200	1 312	92.2	92.3	77.7	85.0
Ecuador	1 024	1 425	1 678	1 662	1 644	139.2	163.9	162.3	160.5
El Salvador	585	708	614	709	689	121.0	105.0	121.2	117.8
Guatemala	1 257	1 523	1 491	1 759	1 809	121.2	118.6	139.9	143.9
Guyana	74	74	77	79	79	100.0	104.1	106.8	106.8
Haiti	867	917	931	956	957	105.8	107.4	110.3	110.4
Honduras	618	617	599	660	682	99.8	96.9	106.8	110.4
Jamaica	124	134	170	172	173	108.1	137.1	138.7	139.5
Mexico	11 458	14 225	13 971	14 570	14 632	124.1	121.9	127.2	127.7
Nicaragua	518	819	705	708	715	158.1	136.1	136.7	138.0
Panama	371	332	449	458	478	89.5	121.0	123.5	128.8
Paraguay	336	497	622	618	742	147.9	185.1	183.9	220.8
Peru	1 612	1 727	1 894	1 749	1 809	107.1	117.5	108.5	112.2
Dominican Republic	625	618	667	671	676	98.9	106.7	107.4	108.2
Trinidad and Tobago	71	75	78	76	76	105.6	109.9	107.0	107.0
Uruguay	1 415	1 231	1 035	989	1 073	87.0	73.1	69.9	75.8
Venezuela	1 250	1 332	1 727	1 534	1 659	106.6	138.2	122.7	132.7
<u>Total</u>	<u>69 257</u>	<u>78 292</u>	<u>84 023</u>	<u>87 677</u>	<u>92 913</u>	<u>111.9</u>	<u>121.3</u>	<u>126.6</u>	<u>134.2</u>

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

/In Brazil

In Brazil crop expansion is based to a large extent on the incorporation of marginal land and the opening up of Amazonia, and also on the intensive use of the factors of production by entrepreneurs in the agricultural subsector, which revealed great potential and flexibility for meeting market needs and expectations.

The use of new land is limited mainly to three agricultural crop groupings, comprised of those crops whose prices have increased considerably in export markets. Of the nine million hectares brought under cultivation in the area, 4.1 million were used for cereals, in this respect there were important increases in the area of maize and sorghum cultivated. Secondly, there was a major expansion in the cultivation of oilseeds - 2.9 million hectares - of these, as mentioned earlier, soya was the most important. Lastly, sugar cane cultivation increased by a little less than 1 million hectares (see table 29). The decision to increase the area with specific crops was dictated by prevailing market conditions, as well as changes in the relative prices of agricultural crops. The three groups of products used new areas resulting from the incorporation of marginal land, as well as areas formerly used for other crops, which was the reason for changes in soil use through the redistribution of crops, the shifting of some, and the introduction or expansion of others, such as sorghum and soya in Argentina. In some countries these changes took place simultaneously.

A belief which is gaining ground is that Latin America has an abundance of potentially productive land. Estimates put the land area unfit for any type of agricultural use at 30 per cent of the total surface area of the region. Potentially useful land would probably amount to 1,400 million hectares, of which 570 million are likely to be arable. <sup>21/</sup> Projections for South America showed <sup>22/</sup> that arable potential would probably be 524 million hectares, of which, only 120 million were likely to have been developed by 1970, that is to say no more than 23 per cent of the said

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<sup>21/</sup> FAO, Indicative World Plan, Rome, 1970.

<sup>22/</sup> FAO, Perspective study of agricultural development for Latin America, Rome, 1972.

Table 29

## LATIN AMERICA: AREAS HARVESTED, BY PRINCIPAL CROPS

Crops	Area harvested (thousands of hectares)						Index (1960-1962 = 100)				
	1960- 1962	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974
Cereals	36 320	46 362	48 011	47 024	47 682	50 580	127.6	132.2	129.5	131.3	139.3
Roots and tubers	3 251	4 147	4 226	4 199	4 295	4 437	127.6	130.0	129.2	132.1	136.5
Vegetables	680	839	848	857	882	898	123.4	124.7	126.0	129.7	132.1
Oilseeds	4 600	6 479	6 525	7 141	8 197	9 352	140.9	141.9	155.2	178.2	203.3
Sugar crops	4 190	4 872	4 774	5 125	5 580	5 628	116.3	114.0	122.3	133.2	134.3
Fruit	1 850	2 353	2 380	2 398	2 421	2 498	127.2	128.6	129.6	130.9	135.0
Beverages and tobacco	8 515	6 763	6 937	7 029	6 347	7 160	79.4	81.5	82.5	74.5	84.1
Vegetable fibres	4 649	5 157	4 631	5 104	5 102	5 154	110.9	99.6	109.8	109.7	110.9
Leguminous vegetable	5 598	6 958	7 283	6 743	7 117	7 117	124.3	130.1	120.5	127.1	127.1
<u>Total</u>	<u>69 657</u>	<u>83 930</u>	<u>85 615</u>	<u>85 620</u>	<u>87 623</u>	<u>92 864</u>	<u>120.5</u>	<u>122.9</u>	<u>122.9</u>	<u>125.8</u>	<u>133.3</u>

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

potential. This figure, compared with that of other regions of the world, suggests that Latin America, and more particularly South America, is the region where the least use has been made of land potential.

However, this overall view of the agricultural potential of the region should be examined with greater care. First, surveys of land and water resources are still inadequate. A large area of the region has not been surveyed, except for some exploratory evaluations. It is possible that studies or evaluations of the region's resources may help to put to rest some views and myths on the subject. In any event, the partial advances made hold out less optimistic prospects than those offered by tradition. In Chile, the advance made in more detailed surveys has shown that spare arable land is less than earlier estimates indicate. Similarly, studies for the preparation of the soil map of South America carried out by FAO and UNESCO have brought some serious limitations to light on the nature of the soils of this region, particularly their low level of natural fertility. No less than 50 per cent of them suffer this defect. A further serious constraint is the scarcity of water. Twenty per cent of South America is in the semi-arid zone, where farming without irrigation is risky or totally impossible. There are also extensive areas of craggy land in the Andes which make up almost 10 per cent of the continent.

In conclusion the study states that the area which does not suffer from the limitations indicated is less than 10 per cent of the total.<sup>23/</sup> A recent report on soil management and evaluation in the Amazon region, which is the largest and least populated in Latin America, also draws a similar conclusion - 90 per cent of the soils of the Amazon region have a low level of natural fertility.<sup>24/</sup>

Furthermore, the settlement and exploitation processes of potentially agricultural land have met with several obstacles. The supposedly large reserves of the region are located in areas where access is difficult. Heavy investment is required for the basic infrastructure and new farms.

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<sup>23/</sup> FAO-UNESCO Soil Map of the World, vol. IV, Paris, 1971, UNESCO.

<sup>24/</sup> FAO, Evaluación y manejo de suelos en la región amazónica. Regional Project FAO/UNDP RLA 70/457, September 1972.

Research and technology suited to the natural conditions of the areas to be settled are required. On repeated occasions the methods of cultivation and the difficult conditions under which new land could be made productive lead to the systematic destruction of resources, giving rise to shifting cultivation which rather than bringing about an increase in the agricultural area, makes it increasingly impossible to do so. In other cases, the human or cultural ties of the people which keep them attached to a certain environment stand in the way of migratory flows to less populated areas. For all these reasons progress in settlement projects is very slow and their significance for agricultural activity as a whole is limited. Results on settlement projects in Latin America have frequently proved disappointing.

Usually, the land which lends itself most easily to agricultural use has already been incorporated, for this reason a realistic approach must be taken in evaluating the possibilities offered by marginal land in the agricultural development of the region. In Central America, there are apparently numerous possibilities of bringing new land under cultivation, for only 40 per cent of the new land surface forms part of existing farms. However, of the 21 million hectares, with some agricultural potential, which remain to be incorporated, only 2 per cent is suitable for intensive agricultural use. Furthermore, the possibility of increasing the agricultural area, or land under cultivation, is not the same in the different countries. Some countries such as Uruguay, Haiti, Chile, El Salvador, and to a certain extent Mexico, are coming to the end or reached the end, sometime ago, of the stage of the occupation of agricultural land and there are no more sizeable areas left for settlement. Therefore, the most viable path seems to be that of intensive cultivation, in the short and medium-term, not only for the countries mentioned, but also for the whole region. Under-utilization of the soil of farm holdings is widespread in Latin America, even in those countries where the density of the rural population is high. For example, in the Andean sub-region of 20 million hectares of arable land, only 11 million hectares are cultivated annually, the remainder being set aside for use as natural grazing land, or left to lie fallow, and a small fraction as seeded grassland. 25/

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25/ FAO, Perspective study of agricultural development for Latin America.

Under-utilization also extends to irrigated land, and inefficiency in the use of grazing land is not unknown, including the low density of cattle per unit of grazing land, as well as the small proportion of seeded or improved grassland.

## 2. Technological inputs

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

As regards the infrastructure, progress achieved in higher and post-graduate education, the development of research institutes, and the increase in funds set aside for this task, favoured considerable advances in the development and adaptation of technologies. New varieties, and the production of hybrids are common occurrences, particularly in the case of cereals, and there has been success in adapting varieties from other regions. There is also a better understanding of the problems of plant nutrition and the fertilizer needs of crops. With respect to cattle and sheep, even though technological levels are generally below standard, progress has been made in some aspects of cattle management, and some health campaigns are worthy of mention, particularly the joint anti-foot and mouth campaign which covers a number of South American countries. Clear progress can be seen in the management and feeding of poultry and pigs.

Varying conditions, both structural as well as economic, restrict the spread of technological progress with the result that it does not extend to all productive units. Levels of knowledge, access to the market and sources of finance, as well as access to the very sources of modern technology extension services, meant that medium-sized and large producers have benefited

/most from



most from technological development, and for this reason have been able to make better use of market opportunities to the detriment of groups of small producers. As a result, research needs to be of a special kind, the same is true for extension services and credit, if it is to meet the needs of larger groups of peasants.

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

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

It was estimated that in 1970, of all agricultural workers in Latin America, more than 17 million were under-employed, which meant the underemployment or absolute loss of human resources to the amount of 7 to 10 million workers.<sup>26/</sup>

The equivalent estimated rates of under-employment in Latin America vary between 20 and 30 per cent; those for some countries exceed the latter figure.<sup>27/</sup>

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<sup>26/</sup> Michel Bourrier and Sergio Maturana, "El empleo agrícola en América Latina", PREALC/60 (July, 1973).

<sup>27/</sup> PREALC: Costa Rica, Meseta Central 18 per cent; Chile 20 per cent; Nicaragua 19 per cent; Panama 24 per cent; Paraguay 35 per cent; Ecuador 33 per cent; Peru 36 per cent; El Salvador 47 per cent.

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

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

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

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

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

/Although aware

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

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

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

With justification the International Development Strategy for the Second Decade explicitly states that developing countries "will adopt the necessary measures for providing adequate irrigation, fertilizers, improved varieties of seeds and suitable agricultural implements". It further states that the developed countries "will support this endeavour by providing the sources to developing countries for obtaining essential inputs, through assistance in research and for the building of infrastructure, and by taking into account in their trade policies the particular needs of developing countries". With reference to the promotion of industry in the developing countries the Strategy proposes among other things the expansion of the industries "that supply essential inputs to agriculture".

/The modernization

The modernization of the process of the agricultures of the region which was examined in preceding paragraphs concerned a rapid incorporation of certain technological inputs in productive activity. Apart from the use of improved seeds, particularly those of cereals and grains, the use of chemical fertilizers has been increasing rapidly. The annual rate of growth of fertilizer consumption which in the decade 1963/1964-1972/1973 was 14.3 per cent, rose to 17.3 per cent during the period 1966/1967-1972/1973. The use of pesticides is also increasing rapidly, and in some cases at rates higher than those of fertilizers. The number of agricultural tractors increased from 350,000 in 1960 to 645,000 in 1970 and it is thought that the figure in 1974 will be 760,000 28/ with the concomitant growth in the consumption of fuel. The rate of increase of the number of tractors, which was approximately 6.4 per cent in the 1960s, has tended to drop so far in this decade to 4.1 per cent owing to, among other reasons, the higher prices which agricultural producers must pay for this equipment.

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

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

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28/ FAO, SUAS (Supply utilization Accounts - computer - sheets), 1974.

For various reasons, the prices of fertilizers rose sharply around mid-1972. The limited supply, having a sharper impact because of inflation, the energy crisis, and the increase in transport costs, led to rapidly rising prices in the market for all fertilizers, as well as for the raw materials for fertilizers and intermediate products. Nitrogenous fertilizer prices quadrupled and those for phosphate fertilizers tripled between 1972 and 1974. The prices for potassic fertilizers rose less sharply, somewhat less than 50 per cent for the same period. Supplies to developing countries, which import the greater part of their needs, fell around mid-1973. Prior to 1972, the low prices of fertilizers were a disincentive to investment in the fertilizer industry, creating thereby, from 1972 onwards a situation of short supply which worsened because of the increased demand for fertilizers by the developed countries, owing to the increase in the areas brought under cultivation in those regions as a result of the food crisis.

The rapid increase in regional demand <sup>29/</sup> for fertilizers and the relatively slower growth of output increased the degree of dependence on supplies in international markets. Whereas at the beginning of the 1970s, the region produced between 50 and 60 per cent of its fertilizer needs, in 1971 and 1972 regional production only covered 40 per cent of domestic demand, so that events in international markets had a powerful impact both on the availability of supplies and on the prices of fertilizers in the region.

On the basis of data provided by the countries, FAO estimated import needs for fertilizers in 1973-1974. For Latin America these needs were placed at 1,203,000 tons of nitrogen; imports fell short of this figure by 16,000 tons, a small amount equal to 1 per cent on the total import needs. In the case of phosphatic fertilizers, the deficit amounted to approximately 17 per cent of import needs. These were estimated at 888,000 tons of nutrients ( $P_2O_5$ ) and they succeeded in importing only 701,000, i.e., a shortly shortfall of 187,000 tons. Imports for the crop year 1973/1974 probably fell by 12 per cent in the case of phosphatic fertilizers, compared with the crop year 1972/1973. This small cutback in supplies of imported phosphates was only partially offset by increases in domestic production.

29/ In 1962, the consumption of nitrogenous, phosphatic, and potassic fertilizers, as a whole, was 1,100,000 tons; in 1973, it increase to 3,900,000 tons.

As regards potassic fertilizers, for which the region is heavily dependent upon international markets, there have been no problems of scarcity in respect of supplies.

Prospects for the year 1974/1975 could, according to FAO, be less bright as regards imported supplies, for the size of the shortfall for the developing countries taken together would probably be around 2 million tons compared with 800,000 in 1973/1974.

In 1974 surplus stocks fell considerably in the developed countries. Reduced supplies and increased demand had a striking impact on the world market for fertilizers, with its current trends of short supply and high prices. Prices for nitrogenous fertilizers and phosphatic fertilizers, which increased by 50 per cent or so in 1972, were 300 to 400 per cent above the admittedly low levels of 1971, in 1974. Serious shortages are expected to continue for at least two years, although in the short-term there are factors which may have a negative or positive impact on the demand and price situation for fertilizers. Therefore, for example, if one or two bumper harvests make a rapid build-up of world food stocks possible, the demand for fertilizers in developed countries could drop considerably. Because of the scarcity and dearth of fertilizers in international markets, several countries of the region are investing in special projects to produce, or increase the domestic production of fertilizers. Natural gas reserves in Latin America are such that the production of nitrogenous fertilizers can be developed. Investment projects are already under way in Mexico, Trinidad and Tobago, Venezuela, Brazil, Argentina and Peru. In Chile attempts are being made to increase the production of sodium nitrate, and there is renewed interest in setting up an ammonia plant in the south of the country. By the end of the 1970s the region should be producing all the nitrogen it needs, and even have enough left over to export.

As regards the production of phosphatic fertilizers some progress has also been made in the setting up of new phosphoric acid plants (Brazil, Mexico, Colombia), and the region is taking some major steps in working phosphate raw materials (apatites and phosphorites). For example, Peru has

/begun the

begun the extraction of phosphorites in Bayovar (the largest known deposits, with reserves of 50 million tons). An initial daily production of 3,000 tons is planned and efforts, similar to those referred to above, are being made to industrialize phosphoric rock to produce phosphatic fertilizers. Colombia has also begun to exploit phosphoric mineral deposits in the north of the country with a view to meeting the import needs. Brazil is also trying to make extensive use of its deposits (Itaiba) of phosphoric rock.

The expansion of the phosphate fertilizer industry offers prospects of bringing domestic production up to approximately 75 per cent of total regional demand by the end of the 1970s.

As regards potassic fertilizers, known resources in Latin America are very small, therefore, its demand will continue to be met mainly by imports from outside the region.

The energy crisis and its implications will have an effect on the expansion, and particularly on the location of the new production units for nitrogenous fertilizers. Rising transport costs and the costs of imported phosphoric rock are exercising a similar effect on the working of deposits in the region, and on the production of phosphates.

The effects of the relative scarcity, and particularly of the increase in the prices of technological inputs, on the agricultures of the region and on production may be quite varied and for this reason even difficult to pinpoint. These problems are of recent origin, and so far their full effect on the level of production has not yet been felt. Of course, the consequences have not been the same for all agricultural products, nor for all countries. The impact too has been different for the different sizes of farms, depending on the products produced, the technologies used, and the degree of efficiency achieved.

On its own, the increase in costs could prove a disincentive to production, either because of the heavier financing required, or simply because the rise in the cost of inputs creates a climate hostile to technological innovation in the production process. The incidence of higher costs may take different forms at three different levels, that of crops (taken separately), that of the productive unit, and country level.

/At the

At the level of crops some effects have already been noted in several countries. Generally, in respect of those crops which have enjoyed price increases, and those for which the cost/price ratios have not varied greatly it would appear that input levels have not suffered much. Typical examples, are rice, sugar cane and beetroots, crops which are responsive to lavish doses of fertilizers. Effects have not been the same for some crops which have not benefited from price increases, and whose profitability has been seriously compromised by the rise in production costs. An example is to be found in the crisis facing the Central American and Ecuadorian banana industry. The cultivation of bananas demands the large-scale use of fertilizers and pesticides. (In some countries ways of converting the bagasse from this crop into organic fertilizer are being explored.) Cotton faces a similar situation, for after a brief period of improved prices which helped it to recover previous levels of production, prices have again fallen to relatively low levels (although somewhat higher than those usually obtained). The increase in the cost of pesticides, fertilizers and fuels brought about a crisis, which meant the replacement of cotton by crops such as maize, sugar cane, soya, etc., in areas where these can be grown, and a reduction in the area under cultivation in regions where this was the sole or dominant crop. The cultivation of hybrid maize in irrigated areas in central Chile shows a similar trend, it being replaced by other competing crops owing to the high incidence of fertilizers and pesticides on production costs.

Rising input costs do not have the same effect on all productive units. The most sensitive are those which have introduced modern methods of production on a larger scale. Nevertheless, such enterprises, could be better placed to adapt factor use to the best opportunities prevailing in agricultural markets, for what is of most importance to them is the profitability of their farms. If price increases of products are transferred in any way to producers, through price policies, it is possible that the level of technological innovation will remain the same.

/There are



There are some production units which for various reasons still have not introduced the whole package of inputs and modern methods in the production process, although they have been using some of them, particularly fertilizers, occasionally on a small scale, at levels which ensure small increases in yields. This is particularly so in the case of subsistence units, or rather, semi-subsistence units located in the Andean area and in Central America. Since such technological changes (the use of fertilizers and improved seeds) can be used extensively even by a small productive unit, the increased cost of fertilizers is an obstacle to the further expansion of the drive to improve the income of the small peasant farmer of the region. The higher costs of fertilizers is making it difficult for peasants to have access to cheaper technology which would prove easy to introduce.

Neither is the impact of the high cost of technological inputs the same in all the regions of the country, or in all countries. They have greater incidence on areas with highly complex irrigation systems, where improved seeds and agro-chemical products are used, and where there is a high degree of mechanization. The effect is limited in areas where extensive farming or cattle rearing is practised. In each country zones can be distinguished by the use they make, in highly varying degree, of technological inputs. There is a similar pattern between countries. The situation brought about by fertilizer prices could have a more serious effect on countries such as Costa Rica, Jamaica, Cuba, El Salvador, or Chile which in 1970/1971 used an average of more than 100 kilogrammes of NPK per hectare than countries such as Bolivia, Paraguay, Argentina, which used less than 15 kilogrammes per hectare.

In addition to the consequences mentioned, as regards the cost and the availability of inputs, the most harmful effect from the point of view of production is linked with the speed with which new technologies are being introduced, particularly improved seeds, fertilizers and pesticides. During 1974 there was an effective drop in the demand for fertilizers compared with trends for previous years. At best, the rates of fertilizer use will not be as high as those of recent years, and there is the possibility that yields will fall.

/The foregoing

The foregoing suggests that yield improvements so necessary for Latin America in general, and for those countries with limited land resources in particular, have begun to be affected by the cost and limited supply of technological inputs whose influence on the growth of regional output is increasing considerably.

### 3. Capital.

The development of agriculture is bringing about important changes in factor mix. Capital needs at farm level or beyond are considerable. Manual cultivation, which relies heavily on natural factors, is giving way to an activity in which skilled manpower and the greater use of capital are playing a greater role. Unfortunately, no information is available, at country level, on the volume and structure of capital used in the sector and such information as is available for ratios of capital stock (employed in the productive process) to product flow for the sector is incomplete. However, information available would seem to suggest inadequate capital formation in regional agriculture in relation to the needs of increasing demand.

Several reasons may be advanced for this, among them mention has already been made of the preferential treatment given to other sectors, particularly the industrial sector, very often to the detriment of agriculture and in particular, of investment programmes in this sector. Frequently, official policies as well, or the intra or intersectoral structures themselves have been oriented towards the transfer of resources from the agricultural sector to urban and industrial development. In many countries, agriculture has continued to be a major contributor to overall development financing at the cost of capital formation within its own sector. Such transfers are not generally direct, indirect transfer machinery being used, such as taxes, differential rates of exchange, or intersectoral price relationships unfavourable to agriculture. The agricultures of Venezuela,

/Bolivia, Chile

Bolivia, Chile are almost entirely exempt from taxes, since petroleum and mining have been the main sources of tax revenue. In Argentina and Uruguay, on the other hand, taxation on the agricultural sector is high. Corrective measures taken both in respect of direct taxation policies and exchange rate policies, and particularly intersectoral price policies could serve as the means of increasing the participation of the agricultural sector in the generation of savings, and in the financing of development, including that of its own sector.

The state of agricultural structures in the region, with their marked inequality in the distribution of resources and income, continues to be one of the most serious obstacles to the capitalization process in agriculture. In the high income groups the established patterns of inordinate consumption are incompatible with the investment and savings requirements of the sector. The agrarian reform programmes need financial assistance. These are a means of re-distributing not only the land or its profits, but also of speeding up the investment process, particularly in the less efficient and extensive farms affected by such reform.

The traditional and generally inefficient marketing systems also play their part in attracting and deviating resources or surpluses, which the producers should be able to capitalize to some extent. In some cases, the corrupt misuse of these resources or surpluses by intermediate producers also affects the possibility of improving the incomes of the very beneficiaries of agrarian reform, thereby cancelling, to some extent, the favourable effect of land distribution.

In the productive schemes prevailing in the region, the unequal distribution of income is the result of a chain reaction which is closely linked with the concentration of the factors of production. Among the various types of agricultural producers, those more deeply involved in capital intensive farming are those who run the commercial type of farms, which are largely market integrated, using forward-looking business

/organization methods.

organization methods. There are indications that their contribution to the region's agricultural output of this relatively small group of producers is rising sharply, particularly in 1973/1974, but there are also signs that this group controls the major share of the relatively limited capital formation opportunities open to the region. Because of this, and the frequent use in such farms of labour substitution technologies, the form that the modernization of agriculture is taking in Latin America is likely to accentuate the extremely unequal distribution of income prevailing in the rural sector in the majority of Latin American countries.<sup>30/</sup>

In general, there has been evidence, in the region, of a trend, which started only a few years ago, to increase the role of the public sector in providing funds for and investing in the agricultural sector. State participation is much better known in respect of investments in irrigation schemes and, in general, in infrastructural works as well as in providing larger allocations for marketing and loans to cover direct production costs.

Nevertheless, the share of the public sector is still too small to give a more powerful impulse to agricultural development. Governments have not succeeded in providing the necessary funds for broadening the base of medium- and long-term credit systems to encourage investment at farm level. Private sector self-financing is absolutely insufficient, and for small producers very hard to come by. In this latter case, non-monetary investment, particularly that related to the improvement of land, or infrastructural building, could be of much greater significance if state encouragement were more determined and unflagging, and if peasant organizations were more active.

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<sup>30/</sup> This situation is further aggravated by the limited mobility of peasant labour.

4. Agrarian reform and other institutional aspects 31/

Repeated emphasis has been given to the importance of land tenure structures and the development of the region's agricultures. The most common name given to this concept is the latifundia-minifundia complex, which apart from denoting a range of interrelationships, reflects the existing inequality in the distribution of resources and opportunities. The study of this situation which was carried out in great detail during the 1960s, succeeded in creating an awareness of the direct functional relationship between land tenure structures and the performance of the agrarian sector and that of the economy in general. It is a fact that the majority of Latin American countries now have laws on agrarian reform, and institutions or bodies responsible for their enforcement.

For the region as a whole, the number of beneficiaries of agrarian reform over the past decade could be put at between 1 and 1.2 million peasant families, in other words, landless families which obtained possession of agricultural land or real access to such land under programmes implemented by official organizations; these included more than half of Mexico's and Venezuela's peasants. 32/ This means an average of approximately 100,000 families per year. In the early years of the present decade estimates put the figure at double that number, particularly because of the speeding up of reform processes in Chile and Peru, and their continued implementation in Bolivia, Mexico and Venezuela, as well as recent action undertaken in Colombia, Ecuador and Panama. However, achievements at regional level are still far from satisfactory, if we take a look at the most eloquent indicators, the number of potential recipients - which in the mid-1970s were estimated at 10 million dispossessed peasant families - and the annual increase of the rural labour force, which stands at approximately 500,000 workers.

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31/ In a more detailed version on this subject the problem of agrarian structures, within the framework of integrated rural development is discussed.

32/ Inter-American Development Bank, Programa Socio-Económico en América Latina, 1970.

Nevertheless, in the light of valuable past experience, guidelines for more efficient implementation of agrarian reform can be drawn, and thus momentary errors and defects which at times depress production can be avoided. The arguments which used these effects to depict the results of agrarian reform as chaotic were, in many cases, attempts to weaken public and political support for a process which is indispensable for the development of the countries of the region.

In the majority of the countries in which agrarian reform has been introduced or which have passed laws in this connexion, changes have been effected in those institutions which foster agricultural production. Similar attempts have been observed in countries with programmes directed towards the modernization of their agricultures. In this respect, in almost all countries some progress has been made in agricultural research making it more flexible, and freeing it of numerous bureaucratic obstacles. At the same time grants have become larger, although they are still not large enough to cover the needs of the countries of the region in terms of the adaptation and creation of technology. A very important drive has also been observed, that of the training of research workers. However, various problems continue to exist, such as the traditional instability characteristic of research cadres; the lack of co-ordination between official institutes and private ones or universities; the fact that no priorities are set for research workers; and, lastly, the relative gap between the abstract world of research and the living world of agriculture with its real problems. Being out of touch is not exclusive to research, but is characteristic of the majority of agricultural support services. Results obtained in agricultural experimentation in several countries have been building up a technological heritage, a reserve for use in need. It is to be assumed that this heritage was tapped during the marked expansion of several crops which took place in a number of countries in 1973, and particularly in 1974.

/The agricultural

The agricultural expansion started during the past decade, and pursued with redoubled efforts in this decade, is, at present, subject to a review in depth, in terms of both its conception and its implementation methodology. The new derived demands of the agrarian reform process and assistance programmes for larger groups of small producers and peasants have made it necessary to revise the objectives of the extension services. Traditionally, they have been geared towards the dissemination of certain improved methods of production which have only been of benefit to a limited group of farmers, who were able to meet all the requirements necessary for implementing such innovative techniques. Technological changes if they are to be used by large groups of peasants cannot be introduced in isolation, other interrelated aspects must be effected, for example, the supply of inputs, financing, and marketing. Thus, extension services are beginning to adopt a new broader outlook to tackle real situations which influence the development of agricultural production. Furthermore, the need to cover large groups of peasants has made it necessary to seek more flexible methods of work to stimulate the participation of the peasants themselves through their associations. The technical assistance involved in agricultural extension services has also, to some extent, contributed to the increase in the output of several foodstuffs, although such assistance continues to be concentrated mainly on medium-sized and large-enterprise type producers.

Things have taken a similar turn in other institutions, for example, it is now clear that the role of credit is limited, in terms of both volume and allocation. The democratization of credit necessarily entails a revision of traditional banking machinery and the guarantees required for granting credit. In addition, it is necessary to stress the potential importance of the channelling of credit towards agricultural associations, such as co-operatives or other associations which foster, like the extension services, action over a wider field by financing institutions. In 1974 several governments earmarked larger sums for State agricultural credit and have related credit programmes more closely to support prices.

One of the institutional aspects of greater interest included in future plans for regional agriculture is the formation of associations and co-operatives of small producers, the development of which is linked, to a fair extent, with advances made in agrarian reform. Support services find in these associations the climate appropriate to joint action. The largest are those formed by medium-sized and small producers. The organization of labour is less frequently encountered, and this points, furthermore, to a serious difficulty on the part of the small or landless peasant farmers to form associations. To some extent this is due to their subsistence situation in which the problems of marketing or the introduction of technological innovation and financing have a very special connotation. As regards social or cultural services, it can be said that, with the exception of a primary education which tends to cover rural Latin America,<sup>33/</sup> the remainder of the services continue to be concentrated in the major urban centres.

In spite of the progress noted, Latin American agrarian structures continue to be beset by the major traditional problems. It was mentioned that those of land use and tenure had undergone relatively little change and, moreover, that such changes have benefited small groups of the rural population, with the result that large sections of the peasant population in Latin America have not been touched by these changes and face serious problems of underemployment. Furthermore, the changes which have been introduced in the public services have not been able to overcome the traditional anarchy of State bodies. Their functions, at times duplicated and triplicated, giving rise to enormous difficulties of co-ordination and widespread bureaucratic defects (centralization and concentration of staff in the more populated urban areas) have proved a stumbling block to the efforts to extend the services to the majority of the peasant population. The ineffectualness of the ministries of agriculture is one of the most common institutional characteristics in Latin America.

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<sup>33/</sup> Despite the fact that its content has not changed and is, therefore, somewhat out of step with rural life itself.



A step in the right direction has been the creation of planning offices at the level of the ministries of agriculture in several countries. Both the planning of strategies and the conception of institutional changes in the development process require an efficient planning system. However, so far, the agricultural planning units established fail, generally speaking, to perform efficiently the tasks originally allotted to them. Among the most frequent causes of their inefficiency, first place could be given to the difficulty which planners in the agricultural sector have to face in taking account of the implications of the overall agricultural development strategies.

In addition, the agricultural planning units are out of touch with a large number of variables, manipulated by the public sector, which exercise a great degree of influence on the agricultural sector (general price policy, agricultural price policy, financial or fiscal policy, foreign trade policy, etc.).

In some cases, agricultural planning has been limited to a mere accounting exercise between supply and demand projections, which have served no other purpose than that of a frame of reference for production targets. These exercises have not been followed up by the adoption of policies and the resulting operational activities. In such cases, the implementation levels are frequently out of line with the planning exercise, and are geared more to coping with conjunctural situations than to following a medium or long-term policy. In such circumstances, agricultural planning fails to exercise any influence on the orientation and activity of the institutions which go to make up the public agricultural sector and, of course, with greater reason, has little bearing on the regional or zonal operations of each country.

Another situation which has been observed in some countries is the difficulty of incorporating, in the planning process, the structural changes which are taking place in those countries, both developments giving the impression of being independent of each other and sharing nothing in common.

/E. CONSUMPTION

## E. CONSUMPTION OF FOOD AND FOOD PROSPECTS BY 1985

### 1. Food situation in the region

The average figure for Latin America's daily per capita food supply - expressed in terms of energy (calories) and proteins (grams) - is above the world average and relatively close to the average for some of the developed countries, for example, Japan.

In 1969-1971 the region's average daily consumption of 2,530 calories and 64 grams of proteins was higher, by 14 and 16 per cent, respectively, than average consumption in the developing countries during the same period (see table 30).

The energy requirements of a man whose weight and size are representative of the average for a given region depend upon what he needs to be able to work moderately hard. The structure of the population by age and sex must also be taken into account in calculating individual requirements. A Joint FAO/WHO Ad Hoc Expert Committee reporting on energy and protein requirements reached the conclusion that a moderately active population, in which the average weights of adult males and females are 65 and 55 kilogrammes, respectively, needs to consume, per capita, 2,320 calories daily.

If this minimum standard is applied to Latin America, it will be seen that in 1971-1973 the region's caloric energy supply exceeded its requirements by 12 per cent. The Near East would seem to have been in a similar position. The other developing countries had an energy supply approximating to minimum requirements, which the above-mentioned Committee estimates at 1,990 calories daily, inasmuch as the average weights of adult males and females are 53 and 46 kilogrammes, respectively.

The region's per capita supply of caloric energy improved during the 1960s. In 1961 it was 4 per cent higher than the minimum requirements. The fact that the regional average shows surpluses might suggest that the inhabitants of Latin America have not been in danger of contracting diseases basically due to undernutrition.

/Table 30

Table 30

WORLD: AVERAGE ENERGY AND PROTEIN SUPPLY, BY REGIONS

	Calories per capita		Protein per capita (grammes)	
	1961	1970 <u>a/</u>	1961	1970 <u>a/</u>
(1) World	2 380	2 480	65.2	69.0
(2) Total for developed countries	2 960	3 150	87.0	96.4
Western Europe	3 020	3 130	89.3	93.7
North America	3 110	3 320	92.3	105.2
Oceania	3 210	3 260	92.7	108.1
Eastern Europe and the Soviet Union	2 990	3 150	87.0	96.4
Others <u>b/</u>	2 420	2 550	73.3	79.1
(3) Total for developing countries	2 130	2 210	55.0	56.0
Africa	2 120	2 190	55.7	58.4
Far East	2 050	2 080	51.3	50.7
Latin America	2 410	2 530	63.7	65.0
Near East	2 200	2 500	62.3	69.3
Others <u>c/</u>	2 020	2 170	54.7	60.4

Source: United Nations, World Food Conference, Assessment of the World Food Situation (E/CONF.65/3), Rome, November 1974, p. 58.

a/ Average for 1960-1971.

b/ Other developed market economies.

c/ Asian centrally planned economies.

/But food

But food consumption in Latin America is far from uniform. While in one or two countries (Argentina and Uruguay) average levels may be considered satisfactory, and resemble those prevailing in developed countries, in others they are pitifully low.

If the countries of the region are listed in descending order according to their respective consumption of calories, at the bottom of the regional scale will be found three countries - Haiti, El Salvador and Ecuador - where in 1971-1973 the average per capita intake of calories was less than 2,000 units daily (see table 31).

Seven countries - Bolivia, Peru, Colombia, Guatemala, Honduras, the Dominican Republic and Trinidad and Tobago - form the next group, with an average intake of 2,000 to 2,400 calories. This group is a good deal less homogeneous than the first (Colombia and Peru, for example, have larger populations). The ten countries in which daily consumption falls below 2,400 calories account for 25 per cent of the population of Latin America.

In twelve countries - Nicaragua, Venezuela, Barbados, Paraguay, Cuba, Guyana, Jamaica, Costa Rica, Panama, Mexico, Brazil and Chile - the daily intake of calories ranges from 2,400 to 3,000 units. Lastly, in two countries - Argentina and Uruguay - it exceeds 3,000 calories. In the aggregate, the countries whose consumption is higher than 2,400 calories daily contain 75 per cent of the population of Latin America.

The national averages for consumption of calories conceal inequalities in the distribution of food within each country, which, as will be seen later, pose a serious energy deficit problem for the least privileged population groups. It must also be borne in mind that not only do vulnerable groups exist in the geographical areas, but, in addition, the distribution of food within families may be uneven.

Among the several factors conditioning the use made by the human body of its protein intake, great importance attaches to their chemical and biological quality, their digestibility, their total linoleic, vitamin, mineral and calorie contributions, the spacing of their intake, their toxicity and aminoacid antagonism, the protein calorie ratio, etc. Accordingly, the following analysis concentrates solely on the energy value of the food consumed in the countries of the region.

Table 31

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

Country	Calories (Units per diem)		Protein (Grammes per diem)		Calories a/ (Supplies as a percentage of requirements)	
	1961	1971-1973	1961	1971-1973	1961	1971-1973
Argentina	3 086	3 222	102	95	116	122
Barbados	-	2 488	-	75	-	108
Bolivia	1 642	2 032	42	47	69	85
Brazil	2 469	2 757	61	67	103	115
Colombia	2 191	2 191	51	50	94	94
Costa Rica	2 217	2 576	57	63	99	114
Cuba	2 500	2 515	63	63	108	108
Chile	2 386	2 781	65	77	98	114
Ecuador	1 888	1 948	46	43	82	84
El Salvador	1 880	1 916	53	51	81	83
Guatemala	1 929	2 155	54	58	83	93
Guyana	2 527	2 539	53	56	112	112
Haiti	1 895	1 793	41	39	84	79
Honduras	1 889	2 102	52	53	83	93
Jamaica	2 027	2 543	56	67	91	114
Mexico	2 515	2 657	62	61	108	115
Nicaragua	2 140	2 467	67	69	95	110
Panama	2 560	2 580	59	62	110	111
Paraguay	2 593	2 510	77	70	112	108
Peru	2 306	2 380	60	62	98	101
Dominican Republic	2 080	2 074	46	50	92	92
Trinidad and Tobago	2 360	2 412	64	65	97	99
Uruguay	3 105	3 077	110	98	116	115
Venezuela	2 263	2 468	59	62	92	99
Latin America	2 410	2 570	64	66	104	112

Source: Joint ECLA/FAO Agriculture Division.

a/ Percentage relationship between consumption of calories and the minimum calorie requirement estimated by FAO for each country. The average minimum requirement for the region as a whole is 2,320 calories daily.

/2. Dietary

## 2. Dietary differences

To pursue the study of the food situation in the Latin American countries, it is useful to examine in greater detail the composition of their diet and to establish a few of the common features by virtue of which some sort of food typology can be defined. To that end, the classification criterion adopted was the identification of the groups of goods that contribute approximately two-thirds of each country's calorie consumption (see table 32). It was taken into account, of course, that given the inter-country differences, complete homogeneity within each group cannot be expected, but only a relative similarity in its members' common features.

Four groups of countries can be distinguished. The most clearly defined is constituted by the five countries whose diet is based on maize and sugar: El Salvador, Guatemala, Haiti, Honduras and Mexico. Daily per capita consumption of calories ranges from an extremely low level (Haiti, El Salvador) to one that is above the regional average (Mexico). In the same way, consumption of proteins varies, especially in the case of those of animal origin. The relative importance of maize in the food intake of this group of countries is very high (about 50 per cent), and in the case of Guatemala reaches 60 per cent of total daily consumption of calories.

A second group of four countries can be defined as basing its diet on cereals, sugar and roots and tubers. It comprises Bolivia, Ecuador, the Dominican Republic and Peru. The first three show a per capita intake of about 2,000 calories daily; the average for Peru approaches 2,400 calories. Consumption of proteins in this group of countries falls short of the regional average.

A third group is formed by twelve countries, accounting for about 50 per cent of the population of Latin America: namely, Barbados, Brazil, Colombia, Costa Rica, Cuba, Guyana, Jamaica, Nicaragua, Panama, Paraguay and Trinidad and Tobago. These countries are characterized by a diet based on cereals, sugar and animal products. The group shows little uniformity: its consumption of calories ranges from 2,200 units daily (Colombia) to 2,760 calories (Brazil). Consumption of proteins - except in Colombia and Guyana - is equivalent to the regional average.

Table 32

LATIN AMERICA: PERCENTAGE CONTRIBUTION TO CONSUMPTION OF CALORIES  
MADE BY THE VARIOUS FOOD GROUPS, 1971-1973

Country	Cereals	Tubers	Sugar	Pulses and nuts	Fruit and vege- tables	Meat and fish	Milk and eggs	Oils and fats	Others
Argentina	30	5	13	1	5	19	9	12	6
Bolivia	40	16	14	1	8	8	2	9	2
Brazil	33	12	17	8	6	8	6	7	3
Colombia	32	9	24	2	10	8	9	4	2
Costa Rica	36	2	24	4	5	7	10	12	-
Cuba	43	8	21	5	3	9	6	5	-
Chile	48	3	13	2	5	7	7	10	5
Ecuador	32	12	16	4	13	7	6	8	2
El Salvador	55	1	15	4	6	4	6	9	-
Guatemala	60	-	13	5	4	5	6	7	-
Guyana	48	4	15	2	4	5	8	10	4
Haiti	51	7	13	4	10	4	2	4	5
Honduras	49	2	18	6	6	3	7	9	-
Jamaica	39	8	17	1	7	9	7	10	2
Mexico	49	1	18	5	4	6	5	8	4
Nicaragua	48	1	13	7	6	7	8	9	1
Panama	42	4	19	4	8	9	6	8	-
Paraguay	32	16	9	5	10	15	3	7	3
Peru	39	14	14	2	7	7	7	8	2
Dominican Republic	27	15	16	7	12	6	7	10	-
Trinidad and Tobago	43	3	17	7	4	9	6	11	-
Uruguay	34	4	14	1	3	21	11	10	2
Venezuela	36	4	17	2	10	10	8	9	4
Latin America	38	8	17	5	6	9	7	8	2

Source: Data provided by FAO.

A fourth and last group, composed of four countries - Argentina, Chile, Uruguay and Venezuela - bases its diet on wheat, animal products and sugar. Argentina and Uruguay have a fairly homogeneous diet; in Chile wheat contributes more than 40 per cent of the energy intake and in Venezuela wheat and sugar represent 53 per cent of consumption. Venezuela alone shows a consumption of protein equivalent to the regional average; at the other extreme Argentina and Uruguay consume almost 100 grams of protein daily, of which 60 per cent is of animal origin.

The staple items in the diet of Latin America as a whole, listed in order of importance, are cereals, sugar and animal products, which in the aggregate contribute 70 per cent of the region's daily consumption of calories. This reveals the underdiversification of the average diet, a characteristic which is linked to the level of development of the countries of the region. The predominant items are the relatively plentiful and low-priced local products. Thus, the Central American countries base their diet very largely on maize and rice, while their consumption of livestock products is comparatively low, despite the fact that most of them are meat exporters. It is for the same reason, mutatis mutandis, that Argentina and Uruguay, at the opposite extreme, also show a somewhat ill-balanced diet. Though the contribution to average diet made in these countries by livestock products resembles and often surpasses the corresponding proportion in the developed countries, the share of consumption of beef is excessive, and prevents consumption of other products necessary to a balanced diet.

### 3. Food consumption by income and social group

The food consumption figures presented reflect national averages and result from estimates of apparent consumption.<sup>34/</sup> These averages, at first sight and in aggregate terms would appear to suggest that the food situation in countries accounting for 20 per cent of the population of the region could be regarded as varying between fair and grossly deficient.

<sup>34/</sup> The United Nations Food and Agriculture Organization (FAO) calculates apparent consumption by means of highly complex production-utilization accounts, based on national production statistics and on technical coefficients estimated for each country in respect of the end uses of total supply (seed, waste, industry, animal feeds, direct human consumption, etc.) and the nutrient content of each food (calories, proteins and fats).



On the basis of the figures shown in table 31, a distinction can be drawn between countries with deficits and those with apparent surpluses. The results are given in table 33 below.

Table 33

LATIN AMERICA: COUNTRIES SHOWING SURPLUSES OR DEFICITS IN THEIR CALORIC ENERGY SUPPLY, 1971-1973

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

Source: Table 31.

This grouping of countries would seem to indicate that at the present time, provided that no radical changes have taken place in relation to the 1971-1973 average, ten countries which comprise in the aggregate 68 per cent of the Latin American population have an apparent surplus in their calorie supply of over 10 per cent in relation to minimum requirements. At the other extreme, six countries accounting for 13 per cent of the population of the region show a food supply deficit of over 10 per cent in relation to their minimum needs.

Patently, however, the essential feature of the food situation in each individual country is the marked inequality in the distribution of food among the various socio-economic groups (see table 34). According to data available for certain countries, the poorest population groups are those

/receiving the

receiving the smallest quantities of food, and therefore their daily intake of calories and proteins is low. These unsatisfactory consumption levels are determined both by meagre personal income, and by place of residence (urban or rural areas).

Table 34

LATIN AMERICA: ESTIMATES OF APPARENT CONSUMPTION OF CALORIES  
BY INCOME STEPS, 1970

Income steps (Percentages of population)	Income (Percentage of total)	Per capita consumption of calories <u>per diem</u> (Units)	(-) Deficit or (+) surplus in relation to minimum requirements <u>a/</u> (Units)
(A) 20	2.5	1 700 - 1 800	(-) 700 - 600
(B) 30	11.4	2 100 - 2 300	(-) 300 - 100
(C) 30	25.1	2 500 - 2 600	(+) 100 - 200
(D) 15	31.2	3 000 - 3 200	(+) 600 - 800
(E) 5	29.9	4 100 - 4 700	(+) 1 900 - 2 300
100	100.0	2 530	+130

Source: Joint ECLA/FAO Agriculture Division.

a/ The figure for minimum per capita requirements was rounded to 2,400 calories per diem.

To ascertain the effect of low incomes on the nutritional level of the population, recourse was had to an exercise described below, which enables food consumption to be estimated by socio-economic strata. It was based on estimates of income distribution in Latin America and on two qualitative hypotheses: (i) as income increases, the proportion of it used for food decreases; and (ii) there is no parallelism between expenditure on food and consumption of calories. In other words, the monetary value of the types of food from which the lower income strata obtain their calories is less than that of the foods providing calories to the upper strata.

/The quantitative

The quantitative hypotheses adopted for the purposes of this estimate were as follows:

- In stratum E (5 per cent) the high level of consumption is accompanied by a great deal of waste of food. Household budget surveys record the calorie consumption of the highest income strata as within the limits noted;
- Consumption in group D (15 per cent) would be approximately similar to that reflected in average consumption statistics for the developed countries;
- Consumption in group C (30 per cent) would be equivalent to the regional average;
- Consumption in group A (20 per cent) is approximately the same as that of the group of countries with the lowest consumption levels in the region (see again table 31);
- The consumption figure for group B (20 per cent) was obtained residually, and is similar to that shown by the group of countries whose level of consumption is next to the lowest (see again table 31).

The results of this exercise indicate that the food deficit in Latin America is much greater and more serious than would appear from the mere study of national averages (see again table 31). According to the estimates made in the present exercise, the deficit affects almost 60 per cent of the population (183 million persons), that is, three times more inhabitants of the region than are suggested by the national averages. Furthermore, 61 million persons - the poorest 20 per cent - are enduring the effects of severe malnutrition, while the other 122 million would seem to be less acutely affected.

No precise conclusions can be reached on the basis of the figures given in table 34, because little is known of the distribution of families within each income step. It may happen, however, that within the poorest groups there are some families whose calorie consumption is more satisfactory. But what can be deduced is that the apparent regional surplus in relation to minimum calorie requirements is concentrated in the highest income groups,

/and that

and that in the lowest strata there is a food deficit and, therefore, undernutrition. The per capita nutritional deficit in the poorest strata is probably about 350 calories per diem, and implies an additional demand for food equivalent to the caloric energy contained in 6 million tons of wheat. The size of the food deficit and the scale of the production effort that would be needed to do away with the conditions of malnutrition in which 60 per cent of the Latin American population live can be assessed if it is recalled that the countries of the region annually import - without taking the net foreign trade balance into consideration - about 8 million tons of wheat.

The effect of the place of residence is most striking in the case of that part of the urban population which has recently migrated from rural areas. These people used at least to have access to the produce of subsistence farming, a source of food of which they are deprived when they move to the large towns, where their earnings are neither regular nor sufficient to buy an adequate supply of food, so that their nutrition drops to hunger levels. The rapid urbanization process that is going on today in Latin America is helping to aggravate the unsatisfactory nutritional status of a large proportion of the urban population. In many countries of the region, the marketing chain from producer to consumer has been subject to severe pressures caused by the lightning speed at which urbanization is taking place. The immigrants to the towns find themselves compelled to change their diet and to buy whatever foods they can purchase with their scanty income in the local markets, generally in marginal populations where nothing has been done to install adequate facilities for storage, processing and wholesale marketing the lack of which implies large-scale waste of food which might have been avoided.

From the nutritional standpoint, the poor are better off in rural areas than in the towns, since the country-dweller produces at least part of his own food. The most vulnerable members of the rural population are the landless workers who depend for their livelihood entirely upon their meagre earnings, but many owners of minifundia also find it difficult to feed their families satisfactorily, even in years when harvests are good. As a general rule, the calorie intake of rural families is at least one-fifth greater than that of urban families at similar income levels.

4. Food balance-sheet of the Latin American countries

For the region as a whole the net foreign trade balance is positive; in terms both of value and of nutrients, the region exports more than it imports. Without discounting intra-regional trade, the net food exports of Latin American countries in 1965 (average for 1964-1966), in terms of calories, reached 526 units per capita, which in the last analysis implied a contribution to the food supply of other regions of the world equivalent to the energy content of almost 16 million tons of wheat. Net exports represented about 18 per cent of the region's production of food (see table 35). In 1972 (average for 1971-1973), in contrast, net exports of food per capita, without discounting intra-regional trade, amounted to 398 units, and were thus reduced by one-fourth. This was basically because per capita production of food, measured in terms of its energy value, was similar in the two periods under consideration, and, therefore, the increase in consumption had to be met by expanding imports of certain foods; consequently, net exports dropped to a lower level, and in 1971-1973 represented only 13 per cent of food production. It is estimated that at the present time the Latin American countries' imports from all sources constitute over 10 per cent of the region's internal food supply.

During recent years, sugar exports alone have accounted for almost 40 per cent of total exports of calories; wheat and maize have contributed 35 per cent, while the main sources of the remainder have been other cereals, fruit, beef and oils and fats. Paradoxically, wheat, although it is a product of such great importance in some countries' exports, also plays a significant part in imports from outside the region; purchases of wheat represent about two-thirds of total imports of calories. Almost all the rest of the calories imported are distributed among oils and fats, other cereals and milk products.

Table 35

LATIN AMERICA: FOOD PRODUCTION AND CONSUMPTION, AND NET BALANCE OF FOREIGN TRADE IN FOOD, EXPRESSED IN TERMS OF CALORIES PER CAPITA PER DIEM <sup>a/</sup>

Country	1964-1966			1971-1973		
	Pro- duction	Con- sumption	Net foreign trade balance <sup>b/</sup>	Pro- duction	Con- sumption	Net foreign trade balance <sup>b/</sup>
Argentina	6 549	2 868	-3 681	6 379	3 222	-3 157
Bolivia	1 379	1 731	352	1 521	2 032	511
Brazil	2 450	2 541	91	2 668	2 757	89
Colombia	2 148	2 220	72	2 069	2 191	122
Costa Rica	2 478	2 234	-244	3 065	2 576	-480
Cuba	7 234	2 635	-4 599	6 807	2 515	-4 292
Chile	1 938	2 523	585	1 841	2 781	940
Ecuador	2 313	1 848	-465	2 008	1 948	-60
El Salvador	1 632	1 877	245	1 643	1 916	273
Guatemala	1 957	1 952	-5	2 131	2 155	24
Guyana	6 991	2 291	-4 700	8 872	2 539	-6 333
Haiti	1 845	1 904	59	1 708	1 793	85
Honduras	2 160	1 930	-289	2 562	2 102	-460
Jamaica	3 621	2 243	-1 378	4 708	2 543	-2 165
Mexico	3 017	2 623	-394	2 960	2 657	-303
Nicaragua	2 521	2 253	-268	2 750	2 467	-283
Panama	2 254	2 317	63	2 545	2 580	35
Paraguay	2 685	2 732	47	2 465	2 510	45
Peru	2 124	2 255	178	2 109	2 380	271
Dominican Republic	3 218	2 004	-1 214	3 604	2 074	-1 530
Trinidad and Tobago	2 949	2 361	-588	3 424	2 412	-1 012
Uruguay	3 360	3 039	-321	2 853	3 077	224
Venezuela	1 763	2 392	629	1 890	2 468	578
<u>Latin America</u>	<u>2 996</u>	<u>2 470</u>	<u>-526</u>	<u>2 993</u>	<u>2 595</u>	<u>-398</u>

Source: Joint ECLA/FAO Agriculture Division.

a/ Provisional estimates.

b/ The sign (-) indicates net exports.

/The countries

The countries that in 1971-1973 exported the largest volumes of food - in terms of calories - were Guyana, Cuba, Jamaica, the Dominican Republic and Trinidad and Tobago, on account of their sugar sales. Argentina's exports of cereals, meat and oils and fats call for separate consideration. Among the food importer countries, Chile takes the lead, followed by Venezuela, Bolivia, Peru, El Salvador, Uruguay, Costa Rica and Haiti. Further details relating to the Latin American countries' foreign trade in agricultural commodities are presented in the corresponding subsection of section B.

The Latin American countries' net export balance of about 398 calories per capita per diem might suggest that it would be possible to alleviate the malnutrition of rather more than 50 million of the region's inhabitants on the basis of its existing internal resources. On this point, however, some observations are called for.

In specific cases, the quantity of a given product exported may lead to errors of interpretation in terms of its nutritional content. Sugar is perhaps the most significant case in point, since a considerable volume of calories is exported in this product, even though the population of the producer countries suffers from a serious deficit; but obviously sugar consumption has a limit of tolerance. The income generated by such exports improves the balance-of-payments position of many Latin American countries, and serves to finance imports of food and other goods required for the consumer market. Within the framework of economic programming, each country tends to establish its own priorities, as regards both economic development objectives and the measures and instruments for their attainment.

##### 5. Nutritional prospects

In Latin America as a whole, consumption of food, expressed in terms of daily supplies of calories, per capita, seems to have improved at an annual rate of 0.6 per cent between the years 1961 and 1973 (see again table 31). In the same period, the rate of population growth was 2.9 per cent, with the result that total demand for food increased at an average annual rate of 3.5 per cent during those twelve years.

/FAO estimates

FAO estimates <sup>35/</sup> based on the extrapolation of the current trend suggest that regional demand for food in terms of calories will expand at an average annual rate of 3.3 per cent up to 1985. Of this projected increment, 2.8 per cent will be attributable to population growth and 0.5 per cent to the increase in the share of income allocated to food consumption, in accordance with the respective demand-income functions selected for each product. Thus food consumption (expressed in terms of calories), which had risen to 2,570 units daily by 1972 (average for 1971-1973), will reach 2,750 units in the year 1985, according to the above-mentioned extrapolation of the trend (see table 36).

As has been pointed out in the foregoing pages, a study of nutritional levels in the light of national or regional averages does not satisfactorily reflect the situation of the lower income strata, and introduces the risk of minimizing the real magnitude of the problem. On the same hypotheses that were utilized in assessing the nutritional status of various income strata in the recent past (see again table 34), a simulation exercise was carried out to project daily consumption of food in Latin America (expressed in calories) in the year 1985. For this purpose the three hypotheses summarized in table 36 were formulated.

Hypothesis A corresponds to the extrapolation of the overall trend which shows an average annual increase of 0.5 per cent in the region's per capita consumption. This hypothesis postulates in addition:

- (a) freezing of the per capita consumption levels of the most affluent groups (20 per cent of the population);
- (b) an annual increase slightly exceeding the regional total in the intermediate groups, i.e., 0.6 per cent and 0.7 per cent, respectively, for the 30 per cent immediately following the highest strata and the 30 per cent next below;
- (c) an annual increase of 1.2 per cent for the poorest segment of the population (20 per cent).

<sup>35/</sup> United Nations, World Food Conference, Assessment of the world food situation, present and future, E/Conf.62/3, Rome, Italy, November 1974.



Table 36

LATIN AMERICA: FOOD CONSUMPTION IN TERMS OF CALORIES, BY INCOME STEPS, 1971-1973 AND 1985

Population stratum (Percentage of total population)	Estimated average consumption 1971-1973 (Calories per capita per diem)	Projections for 1985					
		Calories daily per capita			Annual rates of increase 1971-1973 and 1985		
		Hypothesis A a/	Hypothesis B b/	Hypothesis C c/	Hypothesis A a/	Hypothesis B b/	Hypothesis C c/
20	1 800	2 100	2 400	2 450	1.2	2.2	2.4
30	2 300	2 500	2 600	2 800	0.7	1.0	1.5
30	2 600	2 800	2 850	3 100	0.6	0.7	1.4
15	3 350	3 350	3 350	3 350	0.0	0.0	0.0
5	4 700	4 700	4 700	4 700	0.0	0.0	0.0
100	2 570	2 750	2 850	3 000	0.5	0.8	1.2
Total population					2.8	2.8	2.8
Total demand for calories					3.3	3.6	4.0

Source: Joint ECLA/FAO Agriculture Division.

- a/ Hypothesis A represents extrapolation of the trend observed.
- b/ Hypothesis B postulates eradication of the malnutrition affecting the lower income groups.
- c/ Hypothesis C assumes an average regional consumption of 3,000 calories, a level close to the current figure for average consumption in several European countries.

The postulates of hypothesis A imply that in 1985, only for 20 per cent of the region's population would per capita calorie consumption be, on average, below the minimum acceptable level (2,400 calories daily). In that year, therefore, about 100 million persons would still be showing a deficit of 300 calories daily. In relative terms, even though the extrapolation of the trend indicates an improvement over the 1972 level (average for 1971-1973), the problem of undernutrition would continue to exist in Latin America.

Hypothesis B postulates the eradication of the conditions of malnutrition in which, according to estimates for the benchmark period, the lower income groups are living, and makes the following additional assumptions:

- (a) freezing of the per capita consumption levels of the most affluent groups (20 per cent of the population);
- (b) in the case of the poorest 20 per cent, attainment in 1985 of the minimum per capita consumption level of 2,400 calories daily. This implies an annual rate of increase of 2.2 per cent for the group in question;
- (c) a moderate annual increase for the intermediate groups (1.0 per cent and 0.7 per cent, respectively, for the next two strata);
- (d) by inference from the three foregoing assumptions, an average annual increase of 0.8 per cent for the total population.

The assumptions of hypothesis B, whose basic objective is that by 1985 malnutrition should have disappeared in the lowest income groups comprising 100 million Latin Americans, imply that average daily consumption of calories in Latin America would reach 2,850 units. The attainment of the targets postulated by this hypothesis would entail the application of a set of measures relating not only to foreign trade and agricultural production, but also, in particular, to employment and income distribution policies and to special food and nutrition programmes aimed at the rationally channelling of available supplies of food towards the most needy population groups.

/According to

According to hypothesis C, the regional average for daily per capita consumption of calories would rise to 3,000 units, which is approximately the average level of consumption in several European countries today. This hypothesis also makes the following assumptions:

- (a) freezing of the per capita consumption levels of the most affluent groups (20 per cent of the population);
- (b) up to 1985, an annual increase of 2.4 per cent for the poorest 20 per cent of the population, which would raise this group's average daily consumption of food to 2,450 calories, i.e., 50 units above minimum requirements. This would represent an improvement of 350 units in relation to the benchmark period;
- (c) a moderate annual increase for the intermediate groups (1.5 per cent and 1.4 per cent, respectively, for the next two strata);
- (d) by inference from the three foregoing assumptions, an average annual increment of 1.2 per cent for the total population.

As was remarked earlier, average diet in Latin America is characterized by its high proportion of cereals, sugar, roots and tubers and products of animal origin. Table 37 shows, in terms of volume, apparent human consumption of staple food products in the region. These volumes were projected for 1985 in accordance with the overall postulates of hypotheses A, B and C.

Under hypothesis A (extrapolation of the trend), the annual growth rate of total demand for food would be 3.3 per cent. Demand for the following products would expand faster than total demand for food: poultry (5.5 per cent); sugar, eggs and oils and fats (3.7 per cent); rice, tubers, fruit, mutton and pork (3.5 per cent). In the case of wheat and milk, the rate of increase would be lower than that of aggregate demand (2.7 per cent); and, lastly, demand for pulses and beef would expand at an annual rate of only 2.9 per cent. To judge from what has happened in the past, if the current trend of consumption were to continue, the underdiversification of diet would be aggravated and the relative shares of beef, milk and wheat would diminish.

Table 37

LATIN AMERICA: PROJECTIONS OF TOTAL DEMAND FOR STAPLE FOODS a/

Product	Consumption 1971-1973	Projected demand, 1985 (thousands of tons)			Annual percentage increase		
		Hypoth esis A	Hypoth esis B	Hypoth esis C	Hypoth esis A	Hypoth esis B	Hypoth esis C
Wheat <u>b/</u>	16 550	23 414	23 219	21 975	2.7	2.6	2.2
Rice <u>b/</u>	8 120	12 860	13 521	13 862	3.6	4.0	4.2
M maize <u>b/</u>	12 350	18 835	15 573	15 573	3.3	1.8	1.8
Other cereals <u>b/</u>	1 120	1 708	1 774	1 842	3.3	3.6	3.9
Roots and tubers <u>b/</u>	28 460	44 511	45 072	45 641	3.5	3.6	3.7
Sugar <u>c/</u>	10 460	16 775	16 775	16 775	3.7	3.7	3.7
Pulses	5 840	8 179	9 391	9 872	2.9	4.0	4.4
Oils and fats <u>d/</u>	8 730	14 000	14 536	15 280	3.7	4.0	4.4
Vegetables <u>b/</u>	8 270	12 513	15 213	15 985	3.3	4.8	5.2
Fruit <u>b/</u>	36 960	57 805	64 691	69 691	3.5	4.4	5.0
Beef <u>d/</u>	9 540	13 834	17 549	18 213	2.9	4.8	5.1
utton and pork <u>e/</u>	2 470	3 863	5 510	5 809	3.5	6.4	6.8
Poultry	1 350	2 708	3 671	4 139	5.5	8.0	9.0
Eggs	1 750	2 806	3 920	4 217	3.7	6.4	7.0
Milk <u>f/</u>	26 050	36 832	45 595	48 515	2.7	6.4	4.9
<u>Total demand for food g/</u>					<u>3.3</u>	<u>3.6</u>	<u>4.0</u>

Source: Joint ECLA/FAO Agriculture Division.

a/ Human consumption only.

b/ In terms of primary product equivalent.

c/ Refined sugar

d/ Including animal fats (primary product equivalent).

e/ Including offal.

f/ Including milk products (liquid milk equivalent).

g/ Aggregated on the basis of their calorie content. It must be pointed out that total demand for food can also be aggregated on the basis of the gross value of production of the various commodities, in which case the rates of increase would work out considerably higher, mainly owing to livestock products, since in relative terms their value is greater and their caloric content less.

/Hypothesis B

Hypothesis B, under which the annual rate of increase of total demand for food would be 3.6 per cent, leads to the conclusion that changes would have to take place in the structure of the regional diet. It assumes a rapid growth rate of consumption of poultry (8 per cent) and of mutton, pork and eggs (6.4 per cent); a considerable rise in the level of consumption of beef and vegetables (4.8 per cent higher than at present); and increases in consumption of fruit and milk (4.4 per cent), and of sugar, rice, oilseeds and pulses (4.0 per cent). There would be a marked decrease in the growth rate of consumption of maize (1.8 per cent) and of wheat (2.6 per cent). Tubers and starchy roots would be almost the only products in whose case consumption would expand at much the same rate as in that of food as a whole.

Under hypothesis C, the annual growth rate of total demand for food would rise to 4 per cent, which would mean that the changes in the structure of the region's average diet would be even more notable than under hypothesis B. Hypothesis C implies a higher growth rate for consumption of poultry, eggs, mutton and pork, beef, fruit and vegetables, milk and pulses. The rate of increase of consumption of wheat and maize would diminish.

The foregoing estimates can also be expressed, for each of the products considered, in terms of the additional millions of tons that would be consumed by the population of the region. An examination of the absolute figures gives a clear idea of the potential importance of each in the region's average consumption of food in the future (see table 38).

To project the hypotheses presented in table 37, the structure of the region's average diet, in terms of the contribution made by the various food groups to the total supply of calories, was established for the benchmark year, and so was average consumption of the various food groups, expressed in terms of volume. In the case of hypothesis A, the current trend was extrapolated; in that of hypotheses B and C, the projections for the various food groups were prepared in the light of the basic principle that if changes are to occur in the structure of average diet there will have to be a bigger proportional increase in livestock products (meat, eggs, milk), food and vegetables, pulses and oils and fats. On the other hand, average consumption of cereals, especially maize or wheat - in the latter case because of supply problems - will have to be reduced, and average consumption of roots and tubers and of sugar should remain virtually stable.

Table 38

LATIN AMERICA: ADDITIONAL DEMAND FOR FOOD IN 1985, IN  
RELATION TO CONSUMPTION IN 1971-1973 a/

	Hypothesis A (Extrapolated trend)	Hypothesis B	Hypothesis C
Wheat	5.8	6.5	5.4
Rice	4.8	5.4	5.8
Maize	6.5	3.3	3.2
Roots and tubers	16.1	16.6	17.1
Sugar	6.3	6.3	6.3
Pulses	2.6	3.8	4.3
Oils and fats	5.3	5.8	6.6
Vegetables	4.3	6.9	7.7
Fruit	20.9	27.7	30.0
Beef	4.5	8.1	8.6
Mutton and pork	1.4	3.0	3.4
Poultry	1.3	2.3	2.7
Eggs	1.0	2.1	2.4
Milk	10.7	19.5	22.4

Source: Joint ECLA/FAO Agriculture Division.

a/ Human consumption only.

/In accordance

In accordance with these criteria, the assumptions were established for each group of products and their consistency with the average rate for the region was ensured, on the basis of the diet structure resulting under each hypothesis. Hypotheses B and C incorporated the above-mentioned basic objective of examining the possible increase in regional demand for food on the part of the poorest population groups, at the same time allowing for a considerable improvement in their diet in terms of an increase in the number of calories they would consume in the future.

Hypotheses A, B and C relate to human consumption only. In order to work out total regional demand for agricultural and livestock products, animal consumption would have to be added, together with other internal uses - seed, wastage, etc. -, the proportion utilized to meet external demand, and changes in reserves. FAO, in its Perspective Studies on South America and Central America, estimates that the region's human consumption represents about two-thirds of its total use of agricultural products. By the application of this ratio and the growth rates of the Latin American economies implicit in each hypothesis, total demand for agricultural commodities can be estimated. The results obtained are as follows: under hypothesis A (extrapolation of the trend), the demand in question would increase at an annual rate of 4.1 per cent, while under hypotheses B and C the corresponding rates would be 4.6 per cent and 4.9 per cent, respectively.

The growth rates of total demand for agricultural products resulting from each hypothesis can be related to the production targets which are contained in the Perspective Studies mentioned above, and are established for two regions comprising 90 per cent of the Latin American population. The studies in question present not only objectives, policies and the main instruments in which the latter will be reflected, but also an exhaustive study of the prospects for the expansion of production and the improvement of productivity at the level of each individual product. It is shown that in the future Latin America may attain annual production growth rates approaching and even exceeding 5 per cent, while exporting to the rest of the world on a larger and more rapidly increasing scale than in the past.

/Latin America's

Latin America's productive potential is such that high and steady rates of expansion of food production could be achieved; consequently, the political will to improve food and nutritional conditions in Latin America would find in it a mainstay for the application of the relevant policies, and, in particular, of those designed to benefit the social groups whose low income levels make them more vulnerable to the effects of undernutrition and malnutrition.