LATIN AMERICA
FOOD AND RURAL DEVELOPMENT

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Introduction

I would like to deal with some aspects of rural development in Latin America. I propose to do this by beginning with a description of three salient characteristics of the changes that are taking place in Latin America that have a bearing on rural development. These are: (i) the increasing dependency of Latin America for grain imports from outside this region; (ii) the very high rate of urbanization that is affecting the way millions of Latin Americans earn a living; and (iii) the increase in rural poverty on this region. After this, I will present a strategy of rural development that will increase food supplies while improving conditions in the rural areas. This will lead to a discussion of the World Bank's experience in implementing such a strategy.

Latin America and the world grain trade

Grain is the staple food of most of the world's population and the changing markets of the world grain trade is a good indicator of regional trends in production to meet demand. Insofar as Latin America is concerned an outstanding characteristic of the region in relation to the world's grain situation is its increasing reliance on the world market for its domestic needs. Excluding Argentina, Latin America's ratio of cereal self-sufficiency declined from 86% to 80% between 1951-78. In other words, Latin America had to rely on the outside world for 20% (one-fifth) of its grain in 1978 compared with 14% (one-seventh) in 1961. With Argentina included, Latin America as a whole changed from being a modest net exporter of one million tons in 1961 to a net importer of around 2.5 million tons in 1978.
What has happened in Latin America mirrors what has happened in the world at large and points to the decline of this region as a global supplier of grain. Prior to World War II there was little international trade in grain; most of the world was self-sufficient and the trading that did take place was largely between the United Kingdom and Canada, Australia and Argentina. Since then — and more especially in the last 20 years — there has been a substantial growth in the international grain trade. In 1956, 5% of global production of grain was traded; by 1975 close to 11% of a much larger output was traded. This expansion was from 33 million tons in 1956 to 193 million tons in 1979 — an 8% average growth rate per year.

The main source of grain exports is North America. Indeed North America is so dominant in the grain trade that it can rightly be called the breadbasket of the world. While the US and Canada produced about 20% of all the grain grown in the world they provide two tons out of every three tons that are traded. The US domination of world trade has arisen primarily because of high productivity and the ability to provide export surpluses in response to market opportunities throughout the world. As a result US grain exports rose by more than 10% a year between 1955 and 1975; the other exporters, especially Argentina and to a lesser extent Mexico and Brazil have not been able to exploit the growing market to the same extent; Argentina’s exports grew at a much lower rate — around 3% a year so that Argentina’s share of the world market has declined substantially. Mexico has become a net importer. During this period, though, Brazil became a major exporter of soya beans but is a grain importer this year.

While export growth has become increasingly concentrated in North America, the world market for grain has widened and a growing number of
countries have become importers. In a global context the importing regions can be divided into five categories. These include the developed countries (Western Europe and Japan) the world's poorest regions (South Asia and parts of Africa), the middle income countries (many in Latin America), OPEC and the centrally planned economies. The most rapid growth in imports is now in the middle income countries; there has also been rapid growth in imports in the richer Socialist countries, especially the USSR and to a lesser extent China; finally, of course there has been rapid growth of imports in the OPEC countries including Venezuela, currently the Latin American country most reliant on imports for its food supply - with almost half its food supply being imported.

It is interesting to note that the major increases in imports are coming from the higher income countries, not, as many seem to think, the poorest countries. An important reason for the increased demand for grain is the shift in diets - a shift towards wheat products and grain-fed meat. The use of grain intended for feeding animals has been accelerating since the mid-1950s. At present around one-third of all the grain produced in the world is used to feed animals with half of that being so used in the US and the USSR. But at the same time there is a growing grain-fed, meat industry in Brazil, Mexico and Venezuela. In fact, over 90% of all the grain fed to livestock in the developing world takes place in Latin America. In brief, the "better-off" consumer in rich and poor communities inside and outside Latin America are consuming increasing amounts of meat as their incomes rise. And much of the grain to feed their animals is imported.

An important reason for the growing gap between demand and domestic supply of meat and grain in Latin America is the comparatively low productivity of grain production. For example, grain yields in the US are
around 4 tons per hectare – this is twice the average level in Latin America. Output per man in the US is much larger than anywhere else in the world – roughly 90 tons per worker compared with 10 in the USSR and less than 3 in Mexico (which is higher than the 1 ton per Indian or Chinese agricultural worker). The differences in yields can be explained, in part, by the differences in fertilizer usage – a US farmer puts four times as much fertilizer on his fields as does his Mexican neighbor and eight times as much as South American farmers in general. Higher output per man can be explained in part by the higher investment in labor-saving equipment in the US. Broadly speaking, the level of investment in US agriculture – with its 3 million people – is greater than in the whole of Latin America with its 120 million people in the rural areas. Clearly any policy to increase food production will require a major effort to raise levels of investment in agriculture.

Urbanization

Any analysis of rural development in Latin America must take account of the very high rate of urban growth that is occurring in the region. For example, urbanization is an important factor in influencing patterns of consumption; the growth in wheat consumption correlates almost exactly with the annual growth in the urban population as a whole. Excluding Argentina, Latin America imported approximately 61% of the wheat consumed (9.9 million tons out of 16.3 million tons) and most of this was eaten in urban areas. The same trend is apparent in meat consumption. Since 1960 almost all incremental meat consumption has taken place in the cities of Latin America. The growth of these cities accentuates the importance of producing a surplus in the rural areas – the patterns of consumption also indicate a "consumption gap" between urban and rural areas.
Urbanization in Latin America is part of a worldwide phenomenon of much of this century. Between 1920 and 1970 the proportion of the world population living in towns and cities increased from 19% to 37%, and by the year 2000 over half the world's population is likely to be living in urban areas. This shift in the balance between rural and urban sectors is closely linked to industrialization and changing patterns of employment, and to rapid changes in cultural, social and political conditions. In this respect the features of contemporary urbanization in developing countries differ markedly from those of historical experience. Whereas urbanization in the industrialized countries took many decades, permitting a gradual emergence of economic, social and political institutions to deal with the problems of transformation, the process in much of the world including Latin America is occurring far more rapidly, against a background of higher population growth, lower incomes, and fewer opportunities for international migration (except possibly in Mexico).

The transformation involves enormous numbers of people: between 1950 and 1975 the urban areas of all developing countries absorbed some 400 million people; between 1975 and 2000 the increase will be close to one billion people. The rate of urban population growth in the developing countries is likely to decline after 1975, but it is expected to remain three to four times as high as the urban growth rates of the industrialized countries in this period (3.5% p.a. compared with 0.8% p.a.).

The number of very large cities in the developing world is expanding rapidly: in 1950, only one city (greater Buenos Aires) had a population over 5 million, while five cities in the industrialized countries had reached or exceeded that size. The net additions to city populations in Latin America have been striking; for example, in each year of the mid-1970s, Mexico City
and Sao Paolo each grew by over half a million people. By the year 2000, the developing world is expected to have about 40 cities at or above 5 million people and 15 will be in Latin America, compared with only 12 in the industrialized countries. Eighteen cities in developing countries are expected to have more than 10 million inhabitants, and one at least - Mexico City - may well have triple this number.

The characteristics of the urbanization process vary across countries, but some broad regional groupings can be distinguished to illustrate the major differences in urbanization patterns. One such group of countries comprises the highly urbanized Middle Income countries of Latin America. In this group more than half the population already lived in urban areas in 1975, and three-quarters are expected to do so by the year 2000. Although the rate of rural-urban migration is likely to slow down considerably as this high degree of urbanization is reached, cities will continue to grow rapidly, particularly if conditions are not improved in the rural areas. The pattern of urbanization in these countries is characterized by a heavy concentration of economic activities and wealth in a few very large urban centers, providing a stark contrast to the economic stagnation and much lower average incomes in many of the peripheral regions, especially in the rural areas. Although poverty remains a serious problem in many cities, average urban incomes tend to be substantially higher than those in the rural areas.

Rural-urban migration appears to be one of the primary determinants of the pace and pattern of urbanization in developing countries. While the flow of migrants is often blamed for causing rural stagnation and excessive urban growth, as well as urban unemployment and poverty,
it should be recognized that there are other factors involved. First, natural population growth, is a source of urban population increase in much of Latin America. Second, the view that cities are burdened with a flood of uneducated, unskilled and unmotivated migrants may not be wholly correct. Some studies show that migrants from rural areas are well educated and motivated disproportionately among the poor or unemployed. Thus there is evidence that migrants move mainly in response to better employment and educational opportunities, rather than in reaction to the proverbial bright lights of the cities or other amenities of urban life. In this instance though, the gains to the cities are losses to the rural areas. The true determinants of urbanization and spatial concentration are found in the forces that determine the location of employment opportunities: the nature and pattern of industrialization, the pace of agricultural development and the growth of transportation and communication networks. In other words the lack of agricultural and non-farm development in the rural areas is mirrored by migration: in this respect, rapid urbanization and its concomitant costs to society will be slowed by a more vigorous policy for rural development; one that improves the quality of life and — above all — creates additional incomes and employment.

**Growth and income distribution**

Thus far I have focused on Latin America's growing reliance on imported grains and the massive movements of people from rural to a few large urban areas. Both of these phenomena point to the need to raise productivity and incomes in the rural areas. There is an additional phenomenon that needs to be explored: the extent to which poverty prevails in the rural areas of Latin America and the interrelationship between the economic
characteristics of the poor and the strategy for rural development.

Recent World Bank analysis indicates that approximately 100 million people in Latin America are living below an absolute poverty line. The characteristics of this group are well known: malnutrition, illiteracy, absence of health or sanitary facilities, lack of adequate housing. Perhaps less widely known is the fact that well over half of these people consist of families with large numbers of children and that the great majority — nearly 60% — live in rural areas which contain only 40% of the total population. Put differently, over half of all rural Latin Americans live in absolute poverty compared with 25% in the urban areas.

Scattered evidence tends to show that the mixture of sources of earnings for the rural poor varies considerably among the countries on the continent. In Peru, 80% of the rural poor are subsistence farmers of distinct ethnic backgrounds. Subsistence farmers are mostly Indian, Quechua or Aymara speaking, and in 1961 about 70% were illiterate. Their principal source of livelihood was on the average about 0.9 hectares of Sierra cropland, three heads of cattle, and some other livestock. Most earned some cash income by seasonal labor on larger farms or occasional sales of livestock products. In Colombia, approximately half the rural households in poverty are small producers, the rest landless labor. Nevertheless, even small producers perceived at least two-thirds of their earnings as wage labor in larger farms.

In contrast to Peru, where most rural poor are subsistence farmers, the evidence in Northeastern Brazil shows that most of the poor are landless labor. According to the survey undertaken jointly by the Brazilian government and the World Bank, only 1.7 million of the 6 million rural labor force
(heads of households plus working family members of landowners) own land. Of this 6 million, about three million have no access to land, and subsist on temporary employment or eke out a living on lands so poor or remote that they were not captured by any of the censuses or cadastral surveys. These three million families constitute the hard core of poverty in the Northeast. Most landowners (even if they own only two or three hectares of poor land), sharecroppers, renters and permanent workers, realize real incomes at or above the absolute poverty line, but the remaining persons presumably do not, and this situation is traceable to their lack of access to land.

The above evidence shows that rural poverty cannot be characterized by a single, simple occupational classification. Small farmers are not at the core of rural poverty in all countries - as is believed. For many countries, landless or near landless labor is at least equally represented in the poverty group, and wage earnings represent an important component of income, even in the case of subsistence farmers. This has important implications for rural development.

Finally it is important to know whether poverty is increasing or decreasing in Latin America. No one knows; but fragmentary evidence is not very encouraging. Information on income distribution in certain South American countries shows that the poorest 20% of the population have received a declining share of the national income over the past decade or so; at the same time the richest 10% has been receiving an increasing share of the national income. An exception is in Colombia where the poorest 20% have been receiving an increasing share while the richest 10% have been receiving a diminishing share.

Mexico's experience in the last 25 years is a relatively well documented illustration of a worsening situation for the rural poor. A variety
of factors acted as a drag on potential growth in rainfed areas -- regions which contained the majority of Mexico's poor and provided much of the food consumed by the urban poor. In 1960 the largest 0.5% of all farms produced 33% of total agricultural output and accounted for almost 50% of all incremental production since 1950; this concentration has increased since then. Today the modern large farms (7.1% of the total) generate 3-5 times more income per hectare and 8-20 times more per capita than traditional and subsistence farms. In 1975, 76% of all agricultural families (2.4 million) lived below the poverty level. Most of these families relied on off-farm earnings to make ends meet; 850,000 rural families own no land whatsoever.

Evidence indicates that relative income inequality has, at best, remained constant over these long periods of sustained economic growth. Although the fraction of people in poverty has declined, the force of population growth has resulted in a constant absolute number of people in poverty and an increase in the number of malnourished. In Latin America, some 100 million people will remain in absolute poverty by the year 2000 unless special efforts are undertaken. These efforts should be part of a strategy for rural development.

Rural Development

The preceding somewhat sketchy analysis touches on some of the characteristics of Latin America that come to mind when formulating a policy on rural development. In brief, Latin America is a rapidly urbanizing continent which is becoming less and less self-sufficient in foodstuffs and which has made few significant inroads on the problem of rural poverty and malnutrition. Clearly, raising productivity in rural areas so to increase both rural incomes and the supply of food is a top priority. It would help
reduce urban poverty through more abundant food supplies and rural poverty thereby mitigating the forces that "push" labor out of the rural areas and into the overcrowded urban centers. Ideally, then, a strategy for rural development would center around fulfilling the twin objectives of increasing food production and raising incomes of the rural poor including those with and without access to land.

The incomes of many low income producers are highly dependent on their access to land and their security of tenure. It is well known that land distribution in Latin America is skewed and that the redistribution of land can well reduce poverty. All this evidence indicates that there is considerable scope for eventually increasing output where idle or underutilized land is redistributed to smallholders who are provided with the means for productive use of the land. However, it is important to appreciate that there are limits to the extent to which land redistribution can solve the problem of poverty. For example, a careful study of Northeastern Brazil, where half of that country’s lowest income group live, shows even an extremely radical land reform would have only a limited impact on alleviating poverty. If productive assets were reallocated so that all land-owning families would have an average per capita income of around $150 there would be a 20% decrease in the number of households living below the poverty line. But despite an agrarian reform that would create close to 800,000 new farms, 4 million members of the rural labor force of 6 million would remain in absolute poverty.

The point to be emphasized is that land redistribution can improve the lot of millions but that the scale of problems faced by the millions of landless or near landless precludes making agrarian reform alone the solution to rural poverty. Employment and poverty problems in the rural sector cannot
be resolved on the land alone -- other productive opportunities are needed to absorb migrants arriving in central and regional urban areas as well as in the rural areas themselves. Much of the additional effort required will involve creating full and part-time off-farm rural employment. To this end the recent policy of creating industrial growth poles, fostering agrovilles and market towns and systems such as the vertically integrated kombinats must be accelerated. Regional planning must become part of every program for rural development. There is a need for policy measures that look beyond agriculture alone and that deal with both on- and off-farm investment and employment. This is a general area where experience is limited and many governments are groping for ways and means of implementing integrated rural development.

At the same time, much more needs to be done for low income groups who do have access to land and who can help meet the food needs of the region. Much more is known about how to deal with this part of rural development. In the past five years there has been a growing awareness throughout Latin America of what is required to meet these objectives. In the first instance, it is recognized that there is a hierarchy of requirements to increase agricultural output that must begin with the farmer himself. The producer, large or small, is a rational decision maker. Some of the necessary conditions for the farmer to increase output are dependent upon:

... more effective technical packages that are applicable in physical conditions at the micro-level;

... an extension service to spread the knowledge to the farmers;

... a credit and distribution system which enables the farmer to acquire the inputs he needs;

... a transport and marketing network for the farmer to move his output.
Most important of all, there has to be a pricing system that gives the farmer an incentive to undertake the additional effort and investment involved in increasing his production.

These general considerations apply equally to large and small producers. In many instances, though, the available services have been tailored to meet only the needs of larger farmers. This must change. Research must be focused on technology appropriate to the small, non-mechanized farm; extension must be designed to reach small producers; credit programs and institutions have to be directed to reach small farmers and low income groups; and such credit projects must not only increase earnings but should also provide low income producers with mechanisms for savings. Experience indicates that it is possible to have a strategy which meets some of the objectives of rural development, such as increasing food production and raising the incomes of small producers—such a strategy calls for the development of support services and then ensuring that small farmers have access to these services and have incentives to use them.

The World Bank's Role

Since 1974 the Bank has placed greater emphasis on agriculture and rural development throughout the world and particularly in Latin America; in the early 1970s, 10% of total lending to Latin America was in this sector while in the late 1970s it has been about 25%. Between 1974 and 1979 the Bank has invested $2.4 billion in agriculture and rural development in Latin America; since each dollar invested by the Bank is matched by a local contribution, the total project costs financed by the Bank equals $6.5 billion. Of this total, $4.2 billion has been for directly productive investments,
$286 million for infrastructure and $164 million for social services. Bank lending has assisted all facets of agricultural and rural development: research; extension; irrigation; marketing; roads; non-agricultural facilities such as schools, health facilities and other necessary ingredients for equitable social development.

The projects generally fall into two categories which focus on low-income groups:

... Area projects -- development of particularly depressed regions.

... Subsector functional projects -- assistance targeted to poor farmers that provides input needed to increase production.

The first type of project incorporates an area concept and the provision of goods and services to a particular region which contains a large number of low-income producers. Such areas contain about three quarters of the total number of rural absolute poor in Latin America. Examples of Bank-assisted area rural development can be found throughout Latin America, particularly in Colombia, Northeast Brazil, Bolivia, Peru and Mexico.

The most comprehensive example of such efforts is the Integrated Rural Development Program (PIDER), established by the Mexican Government in 1972, and designed to raise the incomes and improve the living conditions of 5 million rural poor in the most deprived rural areas. The Bank has actively participated in all phases of the PIDER effort with project financing of US$520 million (15% of total costs) supporting directly productive investments comprising mainly development credit, livestock, fruit, rainfed farming and irrigation. The Bank supported PIDER project alone will reach about 1 million people in 50 depressed subregions. Most of these direct
beneficiaries are expected to at least double their incomes from US$400 to more than US$800 per year. Well over 45,000 new permanent jobs and 100,000 man-years of temporary employment are being generated in the project areas. Assistance is provided for increasing agricultural production, and for social investments as well as pioneering efforts in small scale rural enterprise directed to employing the landless.

Another example is the Polonordeste program established by the Brazilian Government in 1974/75 and designed to raise the incomes and improve the living conditions of the rural poor in Northeast Brazil. The Bank in 1975/76 helped design and participated in the financing of the first Integrated Rural Development project in the State of Rio Grande do Norte. As the first project within Polonordeste, guidelines for the whole program were based on its initial experiences. Today, Polonordeste, with an annual budget of approximately US$150 million, is financing about 35 integrated rural development projects of which 3 with Bank financing are currently under implementation and 3 others are under joint Bank/Polonordeste preparation. All these projects are targeted to improve farmers' income through development credit, applied research, extension, marketing support as well as to develop small-scale rural enterprise to create new job opportunities for the landless. Most beneficiaries are expected to more than double their income from US$200-300 up to US$600-1,500 in various projects. First results from the RGN rural development project are very encouraging and prove that such objectives are realistic.
The second type of project is functional. It may be an irrigation scheme, a credit program, improvement of extension, or agricultural research. In all such projects special steps are taken to ensure that the beneficiaries are low income producers. Illustrations of this approach are the loans to Mexico, Brazil and Colombia for credit and irrigation which have helped reorient existing institutions and programs so as to benefit the poor. For example, credit institutions not only improved their coverage so as to include large numbers of low income producers but had to revamp lending procedures and restrictive internal administration. In the course of these changes problems have emerged but the overall experience has been good.

In the late 1960s most beneficiaries of Bank agricultural projects were the larger farmers and ranchers. By 1974, about half of all direct beneficiaries of agricultural loans were low income producers. Today almost 90% of all direct beneficiaries with land are small scale producers. Equally important, the Bank has moved forward in the extremely difficult effort to reach the landless by interventions which provide social, health and nutritional services. In fact, we expect that the fastest growing segment of our rural portfolio in Latin America will be for assistance targeted to the landless.

The Bank also supports a wide range of projects, especially investments in infrastructure and general services that help agriculture in general. Such projects have raised the productivity of a broad spectrum of rural producers. The principal beneficiaries from this increased farm productivity generated through the widespread adoption of new technologies are low income, non-farming consumers. This group lives primarily in urban centers
and spends a disproportionate amount of total income on staple foodstuffs. Increasing the supply of food has been directly translated into better nutrition for the malnourished, especially young children living in cities. By increasing productivity, consumer prices have decreased or remained lower than they would otherwise have been. At the same time, farmers have increased output and their own real incomes.

Conclusion

Any rural development strategy that attempts to deal with Latin America's problems must focus on employment creation, poverty alleviation and increasing productivity, especially in the food sector.

In many respects the World Bank has been in the forefront among international agencies concerned with promoting rural development throughout the world, including Latin America. The World Bank's approach to rural development is essentially one which provides low income and low productivity elements in the rural areas with an opportunity to raise their output and incomes. Experience indicates that the approach developed by the Bank is most effective in dealing with those who have access to land. As has been emphasized, there is now a wealth of information on what is needed to provide low income producers with the opportunity to raise their output. Our experience also indicates that the real costs of increasing agricultural output are rising and the costs of the infrastructure and services to increase both output and incomes will run to many billion of dollars - at present it requires around $3 of investment to increase output by $1.

Rural development means many things to different people. To me it involves a process of changing attitudes (including those of bureaucrats),
institutions, and old ways of doing things. This is often a good deal harder and is a more lengthy process than, say, constructing a new power station or planting a new forest. Often, too, results seem to accumulate slowly—almost imperceptibly to the day-to-day observer or participant.

I believe though that the greatest challenge in rural development is the need to create employment opportunities for the millions of landless in the rural areas. There is no doubt that many landless have benefited from investments in agriculture that have provided both on-farm and off-farm employment. Then, too, land redistribution programs have helped the situation, but it remains at best only part of the solution to rural poverty. The record to date is not very encouraging in direct efforts to help the rural landless. Most official efforts to foster off-farm employment in the rural areas have only had a marginal impact, hence the rapid migration to the large urban centers. At the World Bank, we have had some experience in financing labor-intensive public works (as part of the PIDER program) and rural processing facilities. Clearly we will need to do much more. Future efforts will by necessity take a regional approach to integrating rural and urban requirements, providing for decentralizing industries and allowing for reasonable migration out of agriculture. Clearly the problems of rural development in Latin America will not be resolved in the agricultural sector alone so that we have to see, more clearly than at present, the relationship between investment in human capital in the rural areas and opportunities for employment in the economy at large.

Ultimately, success in the area of raising productivity and food production among low income producers is to be measured as much by the creation of local capacity for long-term development—a capability for sustained
change - as by any immediate benefits. Most important of all is the requirement for sound domestic policies to ensure that increases in agricultural production are sustained and that institutions are designed so as to give low-income producers every opportunity to increase their output. Increasing investment and the supply of external capital to rural areas are important, but very often making better use of existing investments, with comparatively modest incremental outlays to improve efficiency, can yield very high returns. National policies on pricing; land reform; taxation; special facilities for low income producers; responsible interest rate policies that do not subsidize capital-intensive farming at the costs of operation and construction; incentives for private small-scale enterprise and so forth, are at least as important in influencing production and employment as the total flow of resources to a particular country.

A number of recent Bank-financed projects are associated with such policy and institutional reforms. The cost of continuing and expanding Bank efforts are increasing, particularly as projects move into progressively less developed regions, and attempt to deal with more difficult problems such as that of Latin America's rural landless. But if the additional resources and governmental commitment are forthcoming, and if expectations are cast in the right time perspective, our experience shows that production by small holders can be significantly increased.