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Peasant agriculture in Latin America

Situations and trends

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In recent years, increasing attention has been paid to the changes that have been taking place in the rural environment, particularly those relating to the peasantry of Latin America.

The peasant phenomenon still exists in most of the countries of the region, and peasant families working small agricultural units represent a significant percentage of the population of Latin America. They play an important role in the functioning of agriculture and the economy and make a significant contribution to production and to both the food and labour markets. The peasantry is not disconnected or isolated from society as a whole, and because of the physical, economic and cultural integration processes at work, any exclusion or omission of the factors regarding the peasantry distorts the understanding of social phenomena of a general nature.

The purpose of this paper is to provide some background information based on the experience of the Latin American peasantry that illustrates the aforementioned situations and trends.

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Introduction

The purpose of this paper is to bring out some of the social and economic dimensions of peasant agriculture in Latin America, to recall certain experiences in this field, to analyse the characteristics and trends of this type of agriculture and, finally, to interpret its functioning and the way it fits into society as a whole.

This analysis is part of an ongoing process. Rather than presenting a finished picture, it presents an advance view of situations, types of behaviour or trends in the peasantry of Latin America. It is our belief that in order to carry out the fourth of the purposes mentioned earlier, i.e., to interpret the situation of the Latin American peasantry, it will be necessary to carry out a systematic effort on a much larger scale.

The greatest difficulty encountered in this regard is the weakness of the regional or subregional aggregations. Often the homogeneous information that is essential to make such aggregates is not available and it frequently becomes necessary to use differing case studies which, because of their consequent 'localism', reflect partial situations which might well be compared with other cases having the opposite characteristics. Nevertheless, this approach to the illustration of verification of the analysis does not entirely invalidate it, since one could hardly expect to construct a lineal picture of a situation as complex and diversified as that of the peasantry of Latin America. There are profound differences of a geographical or agro-ecological and of a cultural or historical nature, and the structural differences at the socio-economic level may be even more deep-seated, in view of the widely varied network of relationships within which peasant life takes place. Hence the need for caution in using the term 'peasantry' as a generalization.

This study takes a critical view of dichotomizing approaches whereby the regional agricultural situation is split between two extremes, with the first being described as "positive", "dynamic" or "modern" and with the opposite characteristics being attributed to the other. The latter type of description was applied in the past to the *minifundio* and is used currently to describe peasant agriculture. In

order to reinterpret the behaviour of regional agriculture, we have considered it advisable to query the significance of certain descriptions, qualities or characteristics attributed to populations of peasant farmers of shepherds, such as "traditional", "immobile", "marginal", "in decay",[1] "detrimental to the environment", etc. At the same time, we must admit that this attitude may have led us in some parts of this paper to show a certain peasant bias.

I

Interpretations of the regional agricultural experience and the handling of peasant agriculture

1. *The interpretations and their imbalances*

We feel that certain imbalances in the interpretation of the agrarian processes in Latin America originate in the oversimplification of the agricultural realities: the latifundio-minifundio categories are eloquent in this regard. Something similar may be happening with the modern-traditional dichotomy, although sometimes the term 'modern' is identified with agrarian capitalism while in some other cases it is identified with technological penetration. Perhaps the most controversial aspect of this formulation is the fact that the rest of the agrarian systems are left in a vacuum and referred to jointly as the 'traditional area', which is presented as being in a process of decomposition.

Wolf[2] said that it is not accurate to describe peasant societies as amorphous aggregates, lacking their own structures, or to refer to them as 'traditional', labelling them as being 'linked to tradition', and judging them as the opposite of 'modern'.

It is not correct to equate the term 'modern' with 'technological penetration', inasmuch as the new genetic, chemical or mechanical technologies have penetrated the various agricultural systems in different ways and to different degrees, although it is true that in Latin America the capitalist agrarian system is the one that has most thoroughly incorporated the technology available in the industrialized countries. To say that the remaining agrarian systems are traditional suggests that to a certain extent they are incapable of changing, which is not entirely true.

2. *Agricultural modernization and peasant decline*

Some authors suggest that the peasant economy is going through a phase of decline as a result of the industrialization of the economy, involving a transformation of the landholding and technological structures in rural areas.

Gomes and Pérez,[3] in analysing the agriculture of the region in recent decades, note that the principal characteristic of the period analysed is not stagnation in agriculture, but the appreciable economic expansion experienced by a part of the sector. Thus there would appear to be a consolidation of the modern sector in agriculture, which concentrates on production and capital in a relatively small number of medium-sized or large farms, located on the best lands. These undertakings, it would appear, are to a large extent the direct beneficiaries of public investments in infrastructure, as well as of official economic incentives and support services.

The economic and physical yields of the modern sector are usually higher than those of traditional agriculture; consequently, the expansion of the modern sector is translated into a

[1]The notion of 'decay' refers to certain processes of change that are supposed to be leading to the disappearance of the peasantry.

[2]Eric Wolf, *Peasants*, Prentice-Hall Inc., Englewood Cliffs, N.J., 1966.

[3]Gerson Gomes and Antonio Pérez, "The process of modernization in Latin American agriculture", in *CEPAL Review*, No. 8, August 1979, Santiago, Chile, pp. 55-74.

considerable increase in its share of total income and production.

It is also often said that in several countries the increased production registered in recent years is due fundamentally to the contribution of the modern undertakings. Thus, the growth of the monetized component of demand would, essentially, favour modern agriculture, which is better equipped to supply it. The process of expansion of modern agriculture therefore, it is claimed, brings about a simultaneous breakdown of traditional agriculture.

This presentation suggests a sort of dichotomy between a stratum of undertakings which grow as they modernize, while the great majority of productive units, including those coming within the category of peasant agriculture, are left behind in their traditional environment.

Because of the traditionalism that is characteristic of peasant forms of agriculture, it is inferred that they are in a way immobile, showing no capacity for adaptation or change and no motivation other than that expressed on the market, and that they do not make any contribution to the growth or functioning of the economic system except in the form of the labour force, which emigrates to take up temporary work or to leave agriculture permanently.

3. *Emphases and omissions in analyses of agricultural modernization*

Certain aspects have been brought up repeatedly in analyses of agricultural development in postwar Latin America, while others, which are just as valid or more valid than these, have been neglected. This statement is supported, for example, by the case of the mechanization of agriculture.

In 1950 there was a total of 146 000 agricultural tractors, while according to FAO figures[4] this number had increased to 890 000 by 1979. This means that over that period the number of tractors increased sixfold and that mechanization was an indisputable fact which no-one can deny. But to present this fact in such terms is to show only one side of the story, while neglecting to mention the use of biological power, whether human or animal, which is still prevalent in Latin America, in cultivating the land. The justice of this remark is evident, in the first place, when one considers that mechanization possibly did not cover more than one-third of the cultivated area, since not only has the number of tractors and items of equipment increased, but there has also been a considerable increase in the cultivated area, which has expanded from 53.1 million hectares in 1950 to around 105 million in 1979. At the same time, there has been an increase in the planting of artificial grazing land, which covered 45 million hectares in 1979; and in addition, each year a very considerable area of land is left fallow. No matter how efficiently the installed capacity of machinery end equipment is used in Latin American agriculture, only a minor part of agricultural work has been mechanized so far, in view of the amount of machinery available.

In 1979, there was one tractor for every 170 hectares of cultivated land in Latin America. To get a relative idea of the magnitudes involved, that figure may be compared with the information provided by FAO[5] for Europe as a whole, which indicates that in 1979 there was one tractor for every 21 hectares of cultivated land there, while in Western Europe there was one tractor for every 15 hectares.

Brazil now has around 320 000 tractors.[6] Assuming, optimistically, that one tractor can work 50 hectares per year, the installed capacity of this type of work force would provide for tilling and cultivating no more than 16 million hectares, which is only a small percentage of the 50 million hectares that are farmed annually. If to this we add the land that is left fallow, plus the planting and management of cultivated grazing lands, we find that the percentage is even lower.[7]

The fact that the phenomenon of increasing mechanization of agricultural tasks is carefully noted while the prevailing use of biological force is repeatedly omitted can lead to distortions, as is the case when it is forgotten,

[4] FAO, *Production Yearbook*, Rome, Vol. XXXIV, 1981.

[5] *Ibid.*

[6] *Ibid.*

[7] According to the 1970 agricultural census, 29 732 296 hectares are used for artificially farm grazing land.

for example, that certain patterns of mechanization are not suited to the great majority of productive units in Latin American agriculture, or when it is forgotten that appropriate technologies must be sought according to the availability of the various productive factors, particularly the work force.

4. *The predominance of haciendas and entrepreneurial farms*

Analysts of agrarian issues have usually concentrated their attention on the predominance of estancias, haciendas and plantations, as well as on the new forms of enterprises of a capitalist type, and this has indeed permitted a greater and more thorough knowledge of those farms of agricultural activity.

It could hardly be denied that the accumulation of land is a notable feature of the agrarian history of Latin America. This has implications not only for the agrarian and economic history of the region but also for the social and political life of the national societies, and this explains why the subject of the hacienda, the estancia, the plantation or the agricultural enterprise has attracted or continued to attract so much attention. It seemed that by studying them both as regards their economic organization and activity and their socio-political projection this would to a large extent explain the evolution and behaviour of the sector. This may explain why less emphasis has been placed on the agricultural activities carried out on the small remaining spaces by a large number of peasants or by the new associative forms that replaced the hacienda and by the so-called commercial agriculture, which is none other than a kind of agricultural middle class. The questions pertaining to these peasant farmers or stock raisers are usually approached from two standpoints:

(i) That of the social problem of large rural groups with limited resources, which dooms them to a miserable life and leads them to migrate. The notion of the minifundio or smallholding is associated with the existence of this socio-economic situation in which a considerable number of peasants continue to live.

(ii) A second approach, which covers the *minifundista* question, involves not only the scarcity of land (which is the source of many of their problems) but also that of the abundance of labour which has only limited opportunities to obtain temporary employment during tilling or harvesting seasons and which moves to neighbouring regions or cities for this reason.

However, there is a tendency to ignore the economic and social role of peasants as producers, and usually they are not called farmers, despite the fact that they take a number of decisions relating to their economic activity and furthermore they work the land directly. In particular, their economic activity is viewed as not going much beyond the satisfaction of their basic subsistence needs, and thus it is linked more with own-account consumption than with any effort to increase production or supply for the markets. According to the prevailing social nomenclature, in contrast, farmers are persons who often live in towns or villages.

II

Scope and dimensions of peasant agriculture

1. *Differentiation and limits of peasant agriculture*

From the conceptual standpoint, peasant agriculture consists of that segment of agriculture which relies on family labour and in which a wage system is only occasionally put into practice; the family is the essential nucleus of both production and consumption. The family strategy is aimed at maintaining or reproducing this unit of labour and consumption, i.e., at meeting the needs of the family and the requirements of the production unit, and at obtaining the means for responding to the demands arising from the social or institutional

relations of its particular environment. From the standpoint of land tenure, peasant agriculture in Latin America includes small landowners, tenant farmers, sharecroppers, settlers occupying frontier land, squatters, and persons holding family-size units under the agrarian reform process.

It is not at all easy to determine the boundaries of so-called peasant agriculture. The lines between the different forms of agricultural activity are not clear, nor are the lines between peasants suffering from an extreme shortage of land and landless rural families. Moreover, the analysis becomes even more complex in view of the differences that exist within family-based agriculture itself. Bearing all this in mind, the differences may be defined along some of the following lines:

(a) *Size of the agricultural units.* Because of the tremendous diversity in the fertility and productivity of different lands, any distinction based on the physical size of agricultural units must always be a subject of controversy. Nonetheless, in the absence of other information, it is often necessary to resort to this type of criterion when analysing the situation of peasants.

(b) *Capacity of the agricultural unit to provide occupation for the family labour force.* In trying to take account of this type of differentiation, the studies carried out by the Inter-American Committee on Agricultural Development (CIDA),[8] made a distinction between "family-sized" units where enough land is available for a family to support itself with its own labour, and "sub-family-sized" units where there is not enough land for a family to meet its minimum needs and use its labour productively throughout the year.

(c) *Reproduction of peasant units.* There is a stratum which has more resources and is in a position to receive support from official institutions, so that it can thus accumulate resources and expand the economic capacity of its productive units. However, there are also groups that do not easily find opportunities for improving their situation and which because of this very weakness may easily become more impoverished, thus jeopardizing their own reproduction.

(d) *Technological patterns on which the productive activity is based.* In family agriculture, there may be strata that have adopted technological patterns involving mechanization, side by side with primitive farming practices.

(e) *Form and degree of integration with the markets.* There are areas of peasant agriculture where, particularly as a result of urban development or the establishment of agroindustries also due to economic growth in general, the process of monetization and linkage with markets bring about changes in the most characteristic strategies of peasant life, such as the growing of miscellaneous food crops together with stock raising. These changes can lead to the specialization and technification of production and even to the complete monetization of peasant economies.

(f) *Agroecological differences.* In a preliminary analysis on the agricultural potential of Latin America,[9] 67 physiogeographical subregions considered to be relatively homogeneous agroecological areas were identified. Geographical location is thus a differentiating factor in peasant agriculture which is expressed through a wide variety of combinations of crops and types of livestock and which determines the organization and seasonality of the use of the labour force. It also has a significant effect on the monetization of the peasant economy and the nature of its insertion in the markets, depending on the products offered. Progress has been made in some recent studies[10] in the

[8]Solon Barraclough and Juan C. Collarte, *El hombre y la tierra en América Latina* (summary of the CIDA reports on land tenure in Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, and Peru), Instituto de Capacitación e Investigación en Reforma Agraria, Santiago, Chile, Ed. Universitaria, 1971.

[9]Report by Klaas J. Beek, Consultant, to the CEPAL/FAO Joint Agriculture Division, entitled "Algunas notas sobre el potencial agrícola de América Latina", December 1978 (unpublished).

[10]See Neftalí Téllez and José I. Uribe, "Hacia una tipología regional de economías campesinas con referencia a Colombia", in *Estudios rurales latinoamericanos*, Bogotá, Volume 13, No. 3, September-December 1980. Téllez and Uribe distinguish between production systems by identifying the predominant crop or type of livestock, the sociogeographical region where the production unit is located and the social implications of the organization of work around each particular production system. Among others,

drawing up of typologies to show the different agroecological categories of the peasantry.

(g) *Situation of the peasant family*. There is nothing new in the distinction between the well-to-do peasants or petty rural bourgeoisie and the poor peasants with very limited resources, who according to Lenin[11] were part of or were in the process of joining the growing ranks of the rural proletariat that springs up with capitalism. The concept of the *minifundio*, widely used in Latin America, largely covers the situation of the so-called poor peasants. In recent years, the notion of "semiproletarian peasants" has been coined[12] to refer to the poorest stratum of the peasantry, in order to suggest that in view of the Latin American experience, the tension between the development of a bourgeoisie and the proletarianization of the peasantry, may often involve a situation where families are struggling to retain a small plot of land to live on and grow some crops while at the same time selling their labour in other activities. Durston[13] refers to semiproletarian peasant families as those which incorporate into their economic strategy income from wage work in order to supplement the inadequate production of their own plots.

(h) *Development potential of the family agricultural economy*. This attempt to differentiate between categories of peasants is mainly operational and represents a response to the requirements of development plans, programmes or projects. The categories most frequently used refer to the agricultural viability or non-viability of peasant units.

The CEPAL Mexico Office[14] proposes that units should be defined as non-viable from the standpoint of food production when they are so fragmented that the resources they control (especially arable land) are markedly below the minimum required to achieve at least a level of production equivalent to the basic food needs of the family, even if they were to use the best technical options available or possible. These would be units that could not achieve food security on the basis of agricultural measures even over a reasonably long period of time.

According to criteria of agricultural viability in Chile, a distinction has been made between farmers and "poor rural dwellers who, because they live in such areas, have been confused with those who have minimum resources capable of generating productive agriculture. Two-thirds of the men listed as 'farmers' are not really farmers. They belong to the rural environment but not to the agricultural sector. Their problem calls for a social solution to which the entire country must contribute".[15] It seems unnecessary to say that this differentiation, based on the assumption of viability or non-viability, leads to agricultural development options where the productive agents encouraged or supported by public policies may be very different. What is deemed to be the non-viability of a significant part of the peasantry may in some cases lead to their being excluded from the sphere of responsibility of agrarian policies, while in other cases it may encourage the adoption of policies aimed at achieving structural transformations in agriculture.

How then to draw the boundaries of such a complex and differentiated reality as that of the Latin American peasantry? How to develop

they list cold climate zones with temporary crops; temperate climate zones with temporary and permanent crops; banana and African palm zones; plantain and cassava zones; fruit zones; dairy zones; tobacco zones; coffee zones; coffee, plantain, cassava and pineaple zones; onion zones, etc. See also José Franco Mesa, "El campesino, las estructuras socioeconómicas y la economía campesina", in *La economía campesina chilena*, Santiago, Chile, Ed. Aconcagua, 1980.

[11] V.I. Lenin, *The Development of Capitalism in Russia*, Moscow, Foreign Languages Publishing House, 1956.

[12] See Luisa Paré, *El proletariado agrícola en México. ¿Campesinos sin tierra o proletarios agrícolas?*, Mexico City, Siglo XXI Editores, 1977. The author defines semiproletarians as follows: "Agricultural workers who have land but who increasingly rely on wage work for the major share of their income. This period of transition may become practically permanent because of the symbiotic relationship between wage work and the family production unit, which on the one hand makes it possible to subsidize and keep up a dying family enterprise and, on the other, prevents complete and final proletarianization and depeasantization" (pp. 56 and 57).

[13] John Durston, "La inserción social del campesinado latinoamericano en el crecimiento económico", CEPAL/R. 232, 1 July 1980 (mimeographed).

[14] CEPAL, "Economía campesina y agricultura empresarial: tipología de productores del agro mexicano", CEPAL/MEX/1037, 28 January 1981.

[15] Confederación de Cooperativas del Agro, COPAGRO, "El rostro poco conocido de la agricultura", Santiago, Chile, *Boletín*, No. 21, 1980.

aggregations that will allow at least a rough estimate to be made of its dimensions and the processes which affect it? In the preparation of this paper, for methodological purposes, peasant agriculture was considered to comprise those units where the work of cultivation is done by the family. We have had to leave out considerations regarding the differentiation of the peasantry, since our aim is to aggregate a socio-economic reality so as to obtain an empirical approximation that will make it possible, as a beginning —which is the level at which this article is written— to establish some parameters that will at least show the dimensions of this segment of agriculture, the specific situations in which it is developing and the trends which characterize it.

When information regarding family work was not available, some educated guesses were made regarding the physical size of the productive units.

2. *Some dimensions of peasant agriculture*

In order to gain an idea of the magnitude of the Latin American peasantry, certain dimensions were estimated that show something about the size of peasant agriculture.

With respect to the demographic dimension, the population directly linked to peasant agriculture, which is made up of the peasants and their families, amounted to approximately 60 to 65 million persons in the mid-1970s, in other words, somewhat over half the rural population and approximately one-fifth of the total population of Latin America. In some subregions, such as the countries of the Andean area,[16] the relative size of the populations linked with peasant agriculture is even greater. Thus, in the mid-1970s, out of a total population of 63.7 million, around 27 million lived in rural areas and two-thirds of this number were peasant farmers and their families.

The number of units that make up this system of agrarian economy has been estimated, for the purposes of this article, at 13.5 million productive units. This estimate is based on a criterion relating to total size of the exploitation,[17] crossed with information on source of labour when this existed.

The total area of the productive units belonging to peasant agriculture, i.e., arable land, land with permanent crops, ranges and pastures, forests and land unsuitable for farming is estimated at 145 million hectares. This figure represents somewhat less than one-fifth of the total land area devoted to agriculture in the region.

In Central America, the proportion is somewhat higher as, according to the censuses carried out in the 1970s, peasant agriculture accounts for 25% of the total area covered by productive units.

Of the 160.2 million hectares suitable for farming[18] that are already devoted to agriculture in Latin America, the peasantry is estimated to control approximately 57.6 million hectares, i.e., 36% of the total. With regard to harvested area, of the 105 million hectares planted in 1979, appoximately 45 million (44%) represented family-based agriculture. It may be inferred from the above that the average peasant unit in Latin America covers a total area of 11.0 hectares, that it has 4.2 hectares of arable land or land suitable for permanent crops, and that approximately 3.3 hectares are harvested per year. It seems almost unnecessary to point out that this average is only illustrative of a regional-level aggregation.

With regard to the size of the units, it must be borne in mind that almost 39%, i.e., *around 4.9 million units, have an area of less than two hectares*; these figures reflect the phenomenon of semiproletarianization that characterizes peasant life. In some countries, such as Jamaica and El Salvador, this size of unit represents over 75% of the total number of peasant units, and since the opportunities for peasants to sell their labour are limited, they might simply be considered as poor peasants, rather than semiproletarians.

The above shows the social significance of the peasantry, as regards both the rural popula-

[16] Except Chile.

[17] The estimate was based on information provided by national censuses and agricultural cadasters carried out during the 1970s, except in the case of Argentina, the data for which were obtained in 1969.

[18] Including arable lands plus areas devoted to permanent crops.

tion and the total population of Latin America. Thus, any attempt to gain a more thorough knowledge of them and seek answers to their problems should be given high priority.

III

The economic significance of peasant agriculture

1. *Contribution to the production and supply of food*

Family-based peasant agriculture mainly produces food.

It is well know that peasant farmers use part of their production for their own consumption, but their contribution to the general food supply of the population is not so fully appreciated. The statistics available show that peasant agriculture has played an important role in supplying Latin America with food.

In *Brazil*, a well documented study that was published recently[19] shows that small farms, representing more than 80% of the total number of agricultural units reported in the 1976 cadaster but covering less than one-fifth of the area recorded by the census (17.5%), account for more than half the area harvested for basic food products, products for industrial processing and vegetable and fruit crops.

The same report, in studying the origin of production in the light of the type of labour used in the productive units, which is a very useful way of distinguishing between peasant agriculture and other systems, concludes that most of the area harvested for basic food crops, products for industrial processing and vegetable and fruit crops, was on units having no permanent paid workers. Moreover, it states that the production of basic foods is particularly worthy of note, since nearly 80% of the area harvested is on production units having no permanent paid workers.

When units of production were stratified without regard to their area or the source of labour, but rather according to total value of production, it was found that farms having a gross annual income of less than 12 000 cruzeiros (US$ 500) account for more than 60% of the area devoted to basic foods, vegetables and fruits and more than 40% of the area harvested in the case of products for industrial processing.

The same authors state that, in summary, it may be said that in Brazil most agricultural production originates in units that are small either in terms of area or in terms of the total value of production (gross income).[20]

In *Mexico* the contribution of peasant agriculture is also very significant as regards the production of basic foods. In 1970, it contributed 69.6% of maize production, 66.7% of beans, 32.7% of wheat, and 48.9% of fruit production.[21]

In *Colombia*, peasant agriculture plays a major role in supplying the country with food. According to the National Planning Department,[22] in 1973 the value added by the small farming subsector was 63.2% of the national total for agriculture. In 1973, 'small farmers' accounted for 67% of the overall production of foodstuffs which are staples for a high percentage of the population, such as maize, rice and wheat; beans, *ñame*, potatoes and cassava; plantains; crude loaf sugar; and vegetables and fruits (except bananas). In 1976, the highest percentages were as follows: *ñame*, 100%; cassava, 90%; beans, 89%; crude loaf sugar, 85%; green vegetables, 82%; plantains, 80%; sesame, 75%; wheat, 70%; maize, 68%; fruit, 56%; and potatoes, 46%.[23]

[19] J.F. Graciano da Silva and others, *Estructura agraria e produçao de subsistencia na agricultura brasileira*, Sao Paulo, Ed. Hucitec, 1978, pp. 160-167.

[20] *Ibid.*, p. 165.

[21] R. Zapata, "Situación de la agricultura campesina en México" (internal discussion paper), CEPAL/FAO Joint Agriculture Division, November 1979, p. 54.

[22] National Planning Department, Integrated Rural Development Programme (DRI), *El subsector de pequeña producción y el programa DRI* (mimeographed working paper), Bogotá, July 1979, p. 15, *et seq.*

[23] *Ibid.*, p. 86.

The contribution of small farmers is not limited to the high percentage of the domestic food supply they produce, however, for they also grow a significant portion of some export crops. The National Planning Department estimated that in 1976 this sector generated 72% of the value produced in the group made up of coffee, sugar cane and cocoa.[24]

The case of *Peru* also clearly illustrates the significant role of peasant agriculture in supplying basic food products for the population. According to information provided by the 1972 National Agricultural Census,[25] the 15% of the total agricultural area covered by small units of production[26] accounted for 71% of temporary crops, 60% of permanent crops and 48% of cultivated pastures. Peasant producers generated:

Cereals for human consumption	55.1%
Food cereals, not including rice	66.0%
Vegetables	78.6%
Fresh legumes	79.6%
Pulses	73.3%
Roots and tubers	73.2%
Fruits, temporary crops	71.9%
Fruits, permanent crops	29.8%

According to a preliminary estimate by the Board of the Cartagena Agreement (JUNAC),[27] peasant agriculture in the Andean area generates between 50 and 60% of agricultural goods for final consumption.

In the case of *Central America*, it was estimated according to the values of production shown in the agricultural censuses of the 1970s that in Costa Rica; 36,5% of production for domestic consumption came from peasant units; in El Salvador, the share was 62.1% and in Honduras, it was 63.9%.[28] In Guatemala, units of less than 7 hectares generated approximately 53.2% of products for the domestic market.

In almost all the other countries of the region, the situation is similar to that of Brazil, Mexico, Colombia, Peru and Central America, and a large part of the production that goes to feed their population is produced on small farms using family labour.

2. *Contribution to the production of export crops*

Although peasant farmers work mainly to produce foodstuffs not only for their own consumption but also to help meet the domestic demand of their countries, in addition they make significant contributions to the production of export crops.

In Costa Rica, 29.7% of production for export comes from peasant units and in Honduras the share is estimated at 25.5%.

In the case of coffee, for example, in Brazil and Colombia (the main exporters of this commodity) peasants generate around 40% and 30%, respectively, of total production. Moreover, in countries where the value exported is lower, the share rises significantly so that, for example, in Mexico it is 53.8%; in Venezuela, somewhat over 63%; and in Bolivia, 75% (see table 1).

The case with regard to cocoa is similar. In Brazil, which is first with regard to volume produced and value exported, peasants contribute 30% of total production. In Ecuador, which follows Brazil in importance, the participation of peasants in production is 65%, and in countries which export less, such as Venezuela and Peru, the share of peasant production is even higher, amounting to a little under 70% in those two countries (see table 2).

In Mexico, peasant agriculture accounts for 47.6% of the production of cotton, a crop which is to a large extent oriented towards the export market.

Of course, the extent to which peasant producers contribute to the total production of each one of these crops is not the same as their share in the volume exported. In some cases, such as that of coffee, when the situation on the international market becomes difficult and there is a drop in demand, the first thing that processors or exporters do is reduce their

[24] *Ibid.*, p. 19.

[25] Oficina Nacional de Estadísticas y Censos del Perú, *Segundo Censo Nacional, 4 al 24 de setiembre de 1972, Resultados definitivos, Nivel nacional*, Lima, April 1975.

[26] Small agricultural units were considered to be those having a total area of less than 20 hectares.

[27] JUNAC, *Programa Andino de Desarrollo Tecnológico para el Medio Rural*, Lima, J/GT/70/Revisión 3, 11 June 1980, p. 1.

[28] Peasant units were considered to be those having an area of less than 20 hectares.

Table 1

LATIN AMERICA: PEASANT FARMERS' SHARE IN COFFEE PRODUCTION

	Total exports (thousands of dollars)	Total production (thousands of tons)	Peasant production (percentages)
Brazil	2 298 942	950	39.1[a]
Colombia	1 512 603	558	29.5[b]
El Salvador	605 776	180	19.4[c]
Mexico	455 060	246	53.8[d]
Peru	174 354	60	54.8[e]
Ecuador	160 140	77	70.0[f]
Venezuela	44 000	40	63.2[g]
Bolivia	24 000	17	75.0[f]

Source: United Nations Food and Agriculture Organization (FAO), *Trade Yearbook 1977* and *Production Yearbook 1977* and census information from the countries.

[a]Production of agricultural units with an area of less than 50 hectares. Agricultural Census 1970.
[b]Production of "peasant farms" (producing less than 120 *arrobas*). Marco Palacios, *El café en Colombia (1850-1970). Una historia económica, social y política*, Bogotá, Ed. Presencia Ltda., 1979, based on the Coffee Census, 1970.
[c]Production of agricultural units with an area of less than 20 hectares. Third National Agricultural Census 1971.
[d]Production of agricultural units with an area of less than 5.1 hectares and of *ejidos* and *comunidades*. Fifth Agricultural and *Ejido* Census, 1970.
[e]Production of agricultural units with an area of less than 20 hectares. Second National Agricultural Census, 1972.
[f]Estimates by the CEPAL/FAO Joint Agriculture Division.
[g]Production of agricultural units with an area of less than 20 hectares. Ministry of Agriculture and Stock-raising, *Anuario Estadístico, 1976*.

Table 2

LATIN AMERICA: PEASANT FARMERS' SHARE IN COCOA PRODUCTION

	Total exports (thousands of dollars)	Total production (thousands of tons)	Peasant production (percentages)
Brazil	475 454	228	30.2[a]
Ecuador	213 667	72	65.0[b]
Dominican Republic	93 844	37	n.d.
Venezuela	27 300	17	69.1[c]
Mexico	17 440	33	45.9[d]
Peru	1 185	5	67.5[e]

Source: United Nations Food and Agriculture Organization (FAO), *Trade Yearbook 1977* and *Production Yearbook 1977* and census information of the countries.

[a]Production of agricultural units with an area of less than 50 hectares. Agricultural Census 1970.
[b]Estimates of the CEPAL/FAO Joint Agriculture Division.
[c]Production of agricultural units having an area of less than 20 hectares. Ministry of Agriculture and Stock-raising, *Anuario Estadístico, 1976*.
[d]Production of agricultural units with an area of less than 5.1 hectares and of *ejidos* and *comunidades*. Fifth Agricultural and *Ejido* Census, 1970.
[e]Production of agricultural units with an area of less than 20 hectares. Second National Agricultural Census, 1972.

purchases from small producers. When conditions are favourable, in contrast, they expand their purchases from that stratum, so that it becomes a sort of cushion which allows the medium-sized and large producers to regulate, in their favour, the volumes marketed.

3. *Peasant agriculture and livestock production*

On the whole, the participation of peasant agriculture in stockraising is considerably lower than in crop farming. Nevertheless, although peasant agriculture is limited where cattle raising is concerned because of the lack of space, it does make a significant contribution to other types of stock raising.

If we take as an indicator the relationship between livestock on peasant units and total livestock, it will be noted that this is not one of the main activities of the smaller units, although there are notable differences between them. Sheep, goats, pigs and poultry represent high percentages on peasant units, whereas cattle are usually raised on larger units. Census data from Brazil for 1970 show that the number of head of cattle on units of less than 50 hectares represents about 20% of the total. For other countries, such as Mexico, the ratio is approximately 35%, while in Chile it is around 17.6% and in Venezuela it is only 11%. One exception —in which land distribution plays a significant role— is that of Peru, where cattle raising on the smaller peasant-type units accounts for over 70% of the total. Goat raising on such units accounts for over 60% in Brazil and over 50% in Venezuela. In Peru, the proportion of pigs raised on peasant units is approximately 80% of the total.

In the case of Mexico, the value of the different livestock products originating in peasant agriculture amounted to 37.4% of overall livestock production in 1970.[29]

In addition to these statistics, there are case studies, diagnostic studies made for planning purposes and other data which show the role of livestock in providing animal traction on small farms as well as food for family consumption. In addition, it is well known that peasants consider it important to own animals as a form of savings to protect them in emergency situations, in place of conventional financial savings.

4. *The growth of production in peasant agriculture*

But our analysis must not be limited to considering the importance of peasant agriculture within total agricultural production. We must look at its development over time in order to appreciate its capacity for growth, as seen in the experience of the region. The study of this aspect can help to validate or invalidate the theory that it is stagnant or immobile. Only a few elements are available, but they may serve to encourage the compilation of further, more detailed information.

In the analysis of the Ecuadorian experience, two methods were used to get an idea of the development of peasant production. In the first place, crops or types of livestock that were mainly and, in some cases, exclusively raised by peasants were chosen. It was estimated that the 28 products selected, valued at constant prices, had grown between 1965-1967 and 1975-1977 by 3.4% per year on the average, whereas the production of the sector as a whole, valued in the same way, showed an estimated increase of 3.3%. This would seem to indicate that typically peasant production grew at least as fast as the sector taken as a whole.

A complementary procedure was based on the Ecuadorian agricultural censuses for 1954 and 1974, with an effort being made to isolate production attributed to peasant farmers, considered not according to crop or type of livestock but rather with regard to the most representative units of that subsector at both times.[30] It was estimated that on the smaller units production had grown by an average of 2.7% per year during the period, whereas on the larger units it had grown by 1.2% per year during the same period. The differences in growth appear to have led to an increase in the share of peasant units in the sector's overall

[29]R. Zapata, *op. cit.*, p. 47.

[30]Units considered representative of peasant agriculture were those with an area of less than 10 hectares in the *sierra* and those having an area of less than 50 hectares on the coast.

production from 56.5% in 1954 to 63.3% in 1974.[31]

The recent development of agricultural production in the case of Chile is illustrative of the dynamics of peasant agriculture. The fragmentation of co-operatives and *asentamientos* organized during the agrarian reform process in an associative form (keeping the large expropriated units undivided) is causing the peasant who received individual plots to intensify the type of planting patterns which they had traditionally followed as tenants. Thus, for example, over the last five years there have been increases in crops such as potatoes and maize, despite the low levels of prices in certain years. In the case of legumes (beans, lentils and chick-peas), the increases were considerable because of the better prices obtained. Thus the production of legumes which are mainly grown by peasants, has almost doubled over a period of five years (1975-1979).

In Bolivia, the Andean region is of interest because of the predominance of peasant agriculture devoted to cold and temperate-climate crops. Between 1950 and 1974-1976, production of these crops expanded considerably, at an average annual rate of 4.4%. During the 1950s, after the agrarian reform, it appears to have been even higher, with an average annual growth rate of 6.3% between 1950 and 1961.[32] These rates would be considered high for any type of agriculture, and in view of the conditions under which Andean agriculture is carried out in Bolivia, they may be considered even better.

One interesting fact which is worthy of closer attention is that relating to the expansion of soybean growing in Brazil. This is possibly one of the most spectacular examples of a rapid increase in planting of a crop, comparable with the expansion of cereal-growing in Argentina towards the end of the last century, and the area planted with soybeans has extended very quickly indeed.

According to the 1970 Agricultural Census of Brazil, 63.7% of the area and 60.8% of production are accounted for by productive units with a total area of less than 50 hectares. With respect to this level of units, the CIDA study on land tenure in Brazil indicates that the average area of the so-called family and sub-family units is actually over 50 hectares. Some recent data,[33] however, show that 93.3% of the *minifundios* in Brazil have a total area of less than 50 hectares. On some occasions, when crops are destined for sale to agroindustry, the nature of the relationships established with agroindustry, leads to radical changes in the operation of the peasant units, causing the differences among them to become sharper and sometimes giving rise to a greater concentration of land and the proletarianization of the poorer segments of the peasantry.

At the regional level, fresh vegetables are a group of crops that is very representative of peasant production. These crops[34] grew at an average rate of 5.6% per year between the triennium 1949-1951 and the triennium 1973-1975 and were only surpassed by oilseeds, which grew by 6.4% per year during the same period. To give a better idea of what this growth rate means, it may be noted that all crops taken together grew at an average annual rate of 3.5%.

Again at the regional level, the rate of increase of two other groups of crops may also give an indication of production trends in peasant agriculture: roots and tubers, according to the same source, grew at an average annual rate of 2.7% during the period from 1949-1951 to 1973-1975, as also did legumes (beans, etc.).

A more thorough analysis would give a better picture of the development of production by peasant farmers. The information given here is only meant to show that there is an effective capacity for the expansion of production through the peasant economy: a fact which raises several queries with regard to those analyses which, when dealing with the *minifundio* or subsistence agriculture categories,

[31] This information should be considered with reservations, since it is possible that the 1954 census had a larger margin of error than the 1974 census, with the error affecting the smaller units in particular.

[32] CEPAL/FAO Joint Agriculture Division, *La agricultura y las relaciones intersectoriales: El caso de Bolivia*, E/CEPAL/R.205, Santiago, Chile, September 1979.

[33] J.F. Graciano da Silva *et al.*, *op. cit.*, p. 160.

[34] CEPAL/FAO Joint Agriculture Division, *25 años en la agricultura de América Latina: Rasgos principales, 1950-1975*, Cuadernos de la CEPAL No. 21, Santiago, Chile, 1978, pp. 21-23 and table 4.

have only noted certain negative aspects and deficiencies or given almost all the credit for the development of agricultural production to the modern entrepreneurial sector.

5. *Peasant agriculture and employments*

According to the CIDA study on land tenure in Latin America,[35] which was prepared on the basis of information from the 1950s and 1960s, approximately 52.1% of the active agricultural population in the region as a whole[36] was concentrated in the strata of sub-family and family holdings which may be assimilated to the peasant sector of agriculture, while the remaining 47.9% were in the medium and large multi-family strata, which may be associated with the modern, commercial or entrepreneurial sector of agriculture.

The most recent census data show that the concentration of most of the active agricultural population in the peasant sector is a widespread phenomenon, common to most countries of the region. In Brazil, for example, the 1970 census showed that peasant agriculture includes approximately 75% of the total agricultural work force. In Ecuador and Panama, according to the last census, conducted at the beginning of the 1970s, 72% and 60%, respectively, of these engaged in agriculture were concentrated in the peasant stratum. In Mexico, the 1970 census showed that 80.4% of all persons occupied in agriculture were to be found on units of less than 5.1 hectares, *ejidos* and *comunidades*.

In any event, in view of the high percentage of the active agricultural population that is occupied in peasant agriculture, there can be no question about its economic significance as regards employment.

As to whether family or hired labour is used in the different size strata of agricultural units, it has been noted that very little hired labour is used on the smaller units, where family labour on the other hand, plays a significant role.

According to the same CIDA study,[37] for the group of countries as a whole, 78.8% of all labour was family labour and only 21.2% was hired labour in the two lowest strata, while in the higher strata the share of hired labour was 69.8% and that of family labour was only 30.2%.

The most recent census data, gathered during the 1970s, throw light on the situation of Brazil, where 92.6% of the persons occupied in peasant agriculture were members of the producers' and sharecroppers' families and only 7.4% were hired workers. In Ecuador, Mexico and Panama, family labour represented more than 70% of the persons engaged in the peasant sector (see table 3).

The same census information also shows the percentage of agricultural units where the work is carried out exclusively by family members, as well as the percentage that is carried out with both family and hired labour, either predominantly family labour or predominantly hired labour (see table 4).

As may be seen from the cases of Ecuador and Peru, at the level of peasant agriculture (represented by production units having an area of less than 20 hectares) more than 60% of the units rely exclusively on family labour, and in another 30% family labour is predominant. In Panama, the role of family labour is even more significant: in the peasant sector, almost 90% of the production units use family labour exclusively and hired labour is predominant only in 4%.

In general, the work force that is permanently linked to the unit (i.e., excepting temporary or occasional workers) represents more than 70% of the total (see table 5). Among the countries considered, the only exception is Costa Rica, where labour hired for short periods represents a high percentage (45%).

The importance of labour that is permanently linked to the unit is greater in the case of peasant agriculture than in the rest of agriculture. This means that the importance of temporary hired labour increases as the size of the units increases.

It should be noted that the census data on persons employed generally refer to the situa-

[35] S. Barraclough and J.C. Collarte, *El hombre y la tierra en América Latina*, *op. cit.*

[36] This refers to the group of countries selected for that study, namely, Argentina, Brazil, Colombia, Chile, Ecuador, Guatemala and Peru.

[37] S. Barraclough and J.C. Collarte, *op. cit.*, table 4 and table A6 of the Statistical Annex.

Table 3

LATIN AMERICA: FAMILY AND HIRED LABOUR IN PEASANT AGRICULTURE AND THE REST OF AGRICULTURE IN A GROUP OF COUNTRIES
(Percentages)

		Peasant agriculture [a]	Rest of agriculture	Total
Brazil (1970)	*Total*	*100.0*	*100.0*	*100.0*
	Family	92.6	62.9	85.0
	Hired	7.4	37.1	15.0
Ecuador (1974)	*Total*	*100.0*	*100.0*	*100.0*
	Family	76.2	39.0	66.1
	Hired	23.8	61.0	33.9
Mexico (1970)	*Total*	*100.0*	*100.0*	*100.0*
	Family	72.7	47.1	67.7
	Hired	27.3	52.9	32.3
Panama (1970)	*Total*	*100.0*	*100.0*	*100.0*
	Family	79.8	41.5	65.1
	Hired	20.2	58.5	34.9

Source: Prepared by the CEPAL/FAO Joint Agriculture Division on the basis of census information for the countries.

[a] Represented in Brazil by units of less than 50 hectares, in Ecuador and Panama by units of less than 20 hectares and in Mexico by units of less than 5.1 hectares, as well as by *ejidos* and *comunidades*.

Table 4

AGRICULTURAL UNITS, ACCORDING TO WHETHER AGRICULTURAL WORK IS PERFORMED BY FAMILY OR HIRED LABOUR, BY SIZE OF UNIT
(Percentages)

	Ecuador (1974)			Panama (1970)			Peru (1972)		
	Under 20 hectares	20 hectares or more	Total	Under 20 hectares	20 hectares or more	Total	Under 20 hectares	20 hectares or more	Total
Total number of units	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Using family labour exclusively	61.4	–	52.4	89.0	69.2	84.8	61.3	49.5	60.5
Using family and hired labour	38.6	100.0	47.6	11.0	30.8	15.2	38.7	50.5	39.5
(predominantly family)	(29.2)	(22.7)	(28.3)	(7.1)	(16.3)	(9.0)	(n.d.)	(n.d.)	(n.d.)
(predominantly hired)	(9.4)	(77.3)	(19.3)	(3.9)	(14.5)	(6.2)	(n.d.)	(n.d.)	(n.d.)

Source: Prepared by the CEPAL/FAO Joint Agriculture Division on the basis of census information for the countries.

Table 5

LATIN AMERICA: PERMANENT AND TEMPORARY LABOUR ENGAGED IN PEASANT AGRICULTURE AND IN THE REST OF AGRICULTURE IN A GROUP OF COUNTRIES

(Percentages)

		Peasant agriculture	Rest of agriculture	Total
Brazil (1970)	Family	92.6	62.9	85.0
	Hired (permanent)	2.1	19.5	6.6
	Subtotal permanent	*94.7*	*82.4*	*91.5*
	Hired (temporary)	5.3	17.6	8.5
	Total	*100.0*	*100.0*	*100.0*
Costa Rica (1960)	Family	n.d.	n.d.	n.d.
	Hired (permanent)	n.d.	n.d.	n.d.
	Subtotal permanent	*58.0*	*52.6*	*55.0*
	Hired (temporary)	42.0	47.4	45.0
	Total	*100.0*	*100.0*	*100.0*
Ecuador (1974)	Family	76.2	39.0	66.1
	Hired (permanent)	1.4	16.5	5.5
	Subtotal permanent	*77.6*	*55.5*	*71.6*
	Hired (temporary)	22.4	44.5	28.4
	Total	*100.0*	*100.0*	*100.0*
El Salvador (1970)	Family	90.1	30.4	82.4
	Hired (permanent)	9.9	69.6	17.6
	Subtotal permanent	*100.0*	*100.0*	*100.0*
	Hired (temporary)	n.d.	n.d.	n.d.
	Total	n.d	n.d.	n.d.
Mexico (1970)	Family	72.7	47.1	67.7
	Hired (permanent)	3.9	12.0	5.5
	Subtotal permanent	*76.6*	*59.1*	*73.2*
	Hired (temporary)	23.4	40.9	26.8
	Total	*100.0*	*100.0*	*100.0*

Source: Prepared by the CEPAL/FAO Joint Agriculture Division on the basis of census information for the countries. Data for Argentina taken from the CIDA report.

tion that existed at the time of the census or during a period immediately preceding it (one or two weeks); consequently, the data may not reflect the actual situation with regard to temporary or permanent employment throughout an agricultural year, in view of the fact that seasonal changes, which in some countries are very marked in different seasons and regions, are not always reflected in a census. The information provided should therefore be interpreted cautiously, although there can be no question about the role of peasant agriculture in providing employment.

IV

Peasant agriculture and the markets

1. *Changes in the dimensions of the markets*

Profound changes have taken place in connexion with the trading of agricultural products on the market.

Domestic monetary demand, as expressed in the markets for agricultural products, has expanded considerably as a result of the growth of the population, the increases in incomes and, especially, the changes that have taken place in the relative sizes of the agricultural and non-agricultural populations.

Whereas in 1900 there were 65 million Latin Americans, there are now 360 million. The population of the cities, which in 1920 was approximately 12.7 million, is now 215 million: that is to say, 17 times greater, whereas the rural population, which has grown from 76 million in 1920 to 128 million in 1978, has not even doubled. It may be seen from these figures that a radical change has taken place in the levels of integration of agriculture in the domestic markets. In 1920, there were 6 rural inhabitants for every urban inhabitant in Latin America, so that the opportunities for the former to selling foodstuffs or other agricultural products on the domestic market were evidently quite limited. Now, however, the situation is different, inasmuch as there is one rural inhabitant for every two urban inhabitants who need farm products.[38]

This rapid reversal of the relative distribution of the population is at the source of the increasing incorporation of the agricultural population into the markets. Somewhat over half a century ago, there is no doubt that a significant percentage of the rural population lived from agriculture and had some difficulty in finding urban customers for its products; now the situation is different, although one must bear in mind that the different strata of producers have not always had the same opportunities to participate in the markets.

Between 1950 and 1977, total Latin American income (measured in 1970 dollars) rose by over 320% from US$ 54 291 million to US$ 230 207 million, so that the per capita income doubled during the same period (from US$ 358.6 to US$ 718).

In addition to its effect on the volume of domestic demand for agricultural products, the increase in income has a fundamental effect on the composition of demand, stimulating the production of vegetables, fruits and other crops which have high coefficients of income-demand elasticity. Urbanization processes also bring about changes in eating habits.[39]

Although external markets are perhaps of less importance for the agricultural products of the region than in the past, 17% of agricultural production is still exported and the volumes of grains and tropical or semitropical products exported continue to increase. Thus, for example, average annual exports of cereals, which during the five-year period 1920-1924 amounted to 7.6 million tons, came to 13.5 million tons per year during the triennium 1975-1977, and raw sugar, which was exported at an annual rate of 3.8 million tons during the five-year period 1930-1934, was exported at a rate of 11.6 million tons during the triennium 1975-1977.

The constant growth of the demand for agricultural products has been creating increasingly close and extensive ties between agriculture and the markets, and at the same time that this process has transformed the sector and imbued it with dynamism, it has also brought about its gradual articulation with the national and international economies.

The dimensions of the Latin American agricultural economy are today quite different

[38]Although the rural population should not be confused with the population linked to agriculture, it is estimated that the relationship between rural and urban populations reflects the actual trend with regard to agricultural and non-agricultural populations.

[39]Certain foods which are habitually consumed in rural areas are not eaten in the cities because of considerations of social prestige; thus, in the long run, they become 'inferior goods' from the standpoint of demand.

from those of the early decades of the century, and the volumes produced have increased remarkably. Grain production, which, according to available figures, was approximately 24 million tons per year in 1920-1924, was of the order of 77.1 million tons per year in 1975-1977. During the same period, sugar cane production is estimated to have risen from 75 million tons to 303 million tons per year.

Although there are no data showing the long-term growth of livestock production, it is possible to get an idea of the trends it has followed through the changes in the livestock population. Thus, it is estimated that in 1920 there were 99.3 million head of cattle, while in 1978 there were 275.3 million head.

With respect to forestry, in the 25 years between 1950 and 1974 the production of sawn wood doubled, while the output of raw material for paper production multiplied six or seven times and wood pulp production increased tenfold.

2. *Peasant agriculture and the market*

The idea that peasant producers have no articulation with the markets, which is based on the notion of own-account consumption, does not take into account their true contribution to the supply of agricultural products. The fact that own-account consumption does exist and that peasant farmers produce at least for their own subsistence does not rule out the possibility of their making an important contribution to the market. Let us look at some facts.

Survey data for 1972 in Brazil,[40] show that the share of peasant-type production units in total production sold was not at all negligible: approximately 30% of agricultural production taken to the markets was contributed by peasant units.

If one takes into account the fact that levels of own-account consumption amount to about 60% of production, even though there are considerable variations between regions, depending on the characteristics of the basic infrastructure and proximity to the main urban centres, the participation of peasant producers in the markets, either as buyers or suppliers, is definitely confirmed, despite the small scale of their operations when considered individually.

Another case study, but which illustrates a situation different from the above, is that of Bolivia.[41] The Altiplano and lowland regions underwent a marked process of agrarian reform and development of a peasant economy as from 1952, and upward trends were noted as regards production, sales and even own-account consumption, in these predominantly peasant regions. In the case of maize, for example, around 75% of the crop is now sold, whereas before the agrarian reform, the amount was no higher than 10%. In other cases, such as that of potatoes, the comparison shows an evolution from a situation where hardly any sales were made on the market to one where sales amount to around 62% of the crop. Wheat is also an eloquent example: from 20% sold before, almost 68% is now marketed. These increases were stimulated by progressive improvements in regard to transport, extension of markets, expansion and formation of new rural towns.

A study prepared on the basis of a sample survey of several thousand peasant families in Ecuador[42] shows that in the *sierra*, 62% of the production of smaller units is marketed and in the coastal region, 85.7% (see table 6). In the case of the *sierra*, the proportion sold increases in proportion to the size of the holdings, whereas in the coastal region, because of the nature of the products, the share sold is similar for all size strata.

We feel that a thorough review should be made of certain statements such as those which hold that in agriculture "large sectors have remained on the sidelines of the market mechanisms".[43]

[40] J.F. Graciano da Silva *et al.*, *op. cit.*, pp. 161, 168, 235 and 236.

[41] CEPAL/FAO Joint Agriculture Division, *La agricultura y las relaciones intersectoriales...*, *op. cit.*, Chapter VIII.

[42] Ministerio de Agricultura y Ganadería, Programa Nacional de Regionalización, O.R.S.T.O.M., "Diagnóstico socio-económico del medio rural ecuatoriano: Ingresos", Document No. 7, Quito, November 1978.

[43] CEPAL/FAO Joint Agriculture Division, *25 años en la agricultura de América Latina...*, *op. cit.*, p. 4.

Table 6

ECUADOR: DESTINATION OF AGRICULTURAL PRODUCTION ACCORDING TO SIZE OF PRODUCTIVE UNIT
(Percentage distribution)

	Size of agricultural units (in hectares)					
	Up to 1	1-2	2-5	5-10	10-20	20-50
I. *Sierra*						
Agricultural production						
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Sold	62.0	60.0	70.5	76.1	83.1	85.9
Not sold	38.0	40.0	29.5	23.9	16.9	14.1
Own-account consumption	30.4	23.8	19.3	15.0	11.4	8.8
Other uses[a]	7.6	16.2	10.2	8.9	5.5	5.3
II. *Coast*						
Agricultural production						
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Sold	85.7	86.4	85.8	86.5	83.9	90.4
Not sold	14.3	13.6	14.2	13.5	16.1	9.6
Own-account consumption	12.4	10.9	11.4	10.6	13.1	7.8
Other uses[a]	1.9	2.7	2.8	2.9	3.0	1.8

Source: Ministerio de Agricultura y Ganadería, Programa Nacional de Regionalización, O.R.S.T.O.M., "Diagnóstico socio-económico del medio rural ecuatoriano: Ingresos", Document No. 7, Quito, November 1978. Prepared by the CEPAL/FAO Joint Agriculture Division.

[a]Other uses: seed, animal feed, payment of factors of production (labour and others).

3. *Peasant supply and prices of products*

As indicated above, peasant supply consists mainly of foods for popular consumption, and this limits the possibilities of peasants obtaining high prices for their products. In some cases, State policies are deliberately aimed at lowering prices of foods in order to avoid social pressures or pressures on wages or to favour accumulation processes in the urban areas However, the peasants' weakness *vis-à-vis* the markets for agricultural products is due to the fragmented and scattered nature of the supply they offer and to its composition. Since peasants do not have socio-economic or purchasing organizations to protect their income, intermediaries or buyers take advantage of the availability of a large variety of small lots of perishable commodities and purchase them at extremely low prices. Peasant farmers are required to adopt a form of behaviour which in itself tends to deteriorate prices because they need to sell quickly, sometimes before harvesting, and they lack storage facilities for their products. Consequently, deliberate price control policies are not the only factors that are detrimental to their income; the very nature and conditions of peasant participation in the markets make them particularly vulnerable and defenceless. When markets are organized in the form of fairs held periodically and visited by a relatively high number of buyers and even consumers, peasants can retain a certain bargaining capacity. To the extent that markets take on a different type of organization and potential buyers consist mainly of wholesalers or investors in agroindustry, however, monopsonic or oligopsonic conditions are generated and conditions for the peasants may become even more difficult if they do not have some bargaining capacity.

Special attention should be paid to the

manner in which peasant production and supply react to low prices, since it is often expected that these will tend to cause a short-term contraction in supply or, if prices remain systematically low, it is suggested that production should be halted. Obviously, if peasant farmers have the possibility of modifying their soil use practices, some change in the productive structure may be expected, even over the short term. In general, however, the alternatives available to them are limited to the usual components of own-account consumption and the prospects offered by certain products such as vegetables, fruits or export crops (cocoa, coffee, cotton) which are regularly grown in some areas. In such circumstances, the essential peasant rationale continues to operate, i.e., the aim of guaranteeing themselves a certain standard of living. Thus, if the satisfaction of their needs requires additional work, they may be prepared to perform it, or, if a certain level of money income is required to purchase on the market products which they consider essential, they will also be willing to increase their production or sell more products in order to achieve this end. Hence, when faced with low prices, peasants are obliged, in certain circumstances to increase the supply on the markets. This does not mean that they will not tend to modify their soil use structure and seek more attractive alternatives over the medium term, but such adjustments tend to be slow for two reasons: (a) because competition with commercial or entrepreneurial agriculture is stronger in that area, since the latter are in a better position to control the markets that count the most; and (b) because knowledge and technology are not channelled towards the peasant environment at the right time or on the best terms.

4. *Peasant agriculture and the source of peasant income*

(a) *Sources of peasant income*

A great deal of information has been obtained from research studies carried out among peasant farmers, but it is difficult to systematize this information. The only available study that is representative of the general situation of a country is one that was carried out in Ecuador, which showed several interesting facts:

(i) In the *sierra*, on units of less than one hectare, only 19% of family income obtained on the property is generated by agricultural production. On the coast, on the other hand, income from agricultural production in similar units represents a higher percentage, i.e., 31.9% (see table 7).

(ii) In both the *sierra* and the coastal areas, over half the family income originates from the sale of labour, whether in agriculture or in non-agricultural activities.

(iii) It is only on units having an area of from 2 to 5 hectares that income from agricultural production is higher than income from other sources.

In the case of Paraguay, more than 38% of net family income on units of less than 5 hectares comes from outside employment.[44]

These data, plus some others relating to other countries, suggest that if we are to gain a fuller knowledge of the peasantry, we must pay more attention to the land-poor peasants, that is to say, those who have only one or two hectares, as this would help us better to understand the situation of "semiproletarianization" in which they appear to be living and, moreover, we would obtain better elements for understanding the process of depeasantization. Thus, for example, from the information obtained in the Ecuador survey, it seems apparent that the peasants of the *sierra* having less than one hectare and those of the coast use different survival strategies. The former obtain 33.6% of their income from wages received outside of agriculture, whereas on the coast, only 17.4% of their income comes from wages outside the sector. In the *sierra*, the labour force is more integrated with the urban markets, whereas on the coast, because of the high level of urban unemployment, peasants seem to resort less to the cities.

In similar cases in other countries involving areas where units are extremely small, it may be noted that heavy demographic pressure

[44] Santos Pérez, "Información acerca de los beneficiarios y sistema rural de extensión en Paraguay", Santiago, Chile, FAO, RLA/70/037, May-June 1980, p. 4.

can bring about radical changes in soil use and production techniques.

In addition, there is a proliferation of services ('mini-business', transport, etc.) and other activities complementary to agriculture or sometimes predominant over it. Thus, it would seem advisable in future to make a more thorough analysis of the strata of smaller units in order to become familiar with the processes that affect the peasantry.

Table 7

ECUADOR: COMPOSITION OF NET INCOME ACCORDING TO SIZE OF AGRICULTURAL UNITS
(Percentages)

	Size of agricultural units (in hectares)					
	Up to 1	1-2	2-5	5-10	10-20	20-50
I. *Sierra*						
Net agricultural income[a]	19.0	43.7	62.5	70.5	71.1	74.9
Sale of crafts	3.5	2.0	0.6	1.1	0.1	1.2
Products received in payment	0.5	1.1	0.6	0.4	1.7	1.0
Commercial activities	5.9	4.1	4.0	5.0	5.9	3.9
Transfers and credits	17.2	3.9	5.9	10.4	11.9	14.1
Wages:						
Agricultural	20.2	22.9	14.3	6.1	3.3	2.0
Non-agricultural	33.6	22.2	12.0	6.4	6.0	2.9
Total income	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
II. *Coast*						
Net agricultural income[a]	31.9	54.8	66.9	75.5	80.5	79.7
Sale of crafts	4.4	0.5	0.5	0.2	0.1	0.5
Products received in payment	0.8	0.4	0.7	0.2	0.2	0.7
Commercial activities	8.4	3.2	3.8	4.1	3.0	1.4
Transfers and credits	1.9	4.8	3.3	4.5	7.3	11.7
Wages:						
Agricultural	35.2	27.3	17.8	8.4	5.2	1.5
Non-agricultural	17.4	9.0	6.9	7.0	3.6	4.5
Total income	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Source: Ministerio de Agricultura y Ganadería, Programa Nacional de Regionalización, O.R.S.T.O.M., "Diagnóstico socio-económico del medio rural ecuatoriano: Ingresos", Documento No. 7, Quito, November 1978. Prepared by the CEPAL/FAO Joint Agriculture Division.

[a]Value of production minus expenditure in money or in kind, without considering the cost of family labour.

V

Structural trends in peasant agriculture

This is an area of analysis that poses serious problems for the following reasons:

(a) The boundaries of peasant agriculture are not clear because of the difficulties involved in determining the internal or external social relations that separate the peasant rationale from other types of economic behaviour.

(b) There is a wide diversity of situations in Latin America, which cease to be properly reflected when any regional aggregation or analysis is made.

Nevertheless, with these limitations in mind, some considerations are put forward below which might suggest certain hypotheses and encourage further analysis of the subject.

1. *Trends in the peasant population*

The rural population of Latin America has been continuing to grow in absolute terms and, according to CELADE projections,[45] this process will continue during the next few decades. Thus, from a rural population of 122 million in 1975, the figure is expected to rise to 141 million by the year 2000. What has been or will be the activity of this population, and to what type of production relations has it been linked or will it be linked in the future? It is not easy to answer this. Census data for Brazil concerning persons occupied on agricultural production units illustrate what appears likely to be the trend followed by the population linked to agricultural activity. A comparison of the agricultural censuses for 1960 and 1970 suggests the following:[46]

(a) an increase of 12.5% in the population employed in agricultural establishments;

(b) a larger increase (27.6%) in establishments having a total area of less than 50 hectares; and

(c) a decrease of 16.2% in units having an area of more than 50 hectares.

In order to eliminate the distortions caused by the hiring of temporary labour in the overall employment figures, separate comparisons were made of the data on persons permanently linked to the agricultural unit, i.e., the unpaid heads and active members of the family, and permanent workers. This comparison shows that: (a) in the units that are most representative of peasant agriculture, that is, those having an area of less than 50 hectares, the number of persons permanently employed rose by 40.4% between 1960 and 1970; and (b) in the larger units, the number of such persons dropped by 2.8%.

These data suggest the following: (i) the agricultural population and the labour force have gradually become increasingly linked to the smaller agricultural units; and (ii) there appears to be increasing pressure on the agricultural resources available to such units. These phenomena were observed not only in Brazil, but also in other agricultural sectors, such as those of Mexico and the Andean area.

In Mexico, according to the data provided by the agricultural censuses of 1960 and 1970, around 70% of the active agricultural population is made up of 'agricultural producers and their families', a category which is very closely linked to the existence of an extensive system of peasant agriculture. The census data also show a rapid increase in the active population in agriculture, from 4.3 million in 1960 to 7.8 million in 1970; of this increase of approximately 3.5 million persons, 2.2 million were 'agricultural producers and their families'; in this case, again, one may conclude that peasant agriculture covers a large and growing part of the active population linked to the sector.

It would seem that in discussing this phenomenon, which should be studied in greater depth, at least two hypotheses should be considered. The first is that of the possible intensification of the phenomenon of sale of the family labour in agricultural or other types of work outside the boundaries of the farm in order to supplement the income obtained there. Thus, there would appear to be an expansion of the semiproletarianization of peasant agriculture in traditional terms.

On the Bolivian *altiplano*, 1.2 persons per peasant family (usually the head of household) migrate temporarily in order to seek work.[47]

In the second place, there is the hypothesis that permanent paid work on the capitalist units of production has been kept at the same level or perhaps in some cases has been replaced by the increased use of mechanized equipment and temporary labour. In Chile, between 1965 and 1976, the number of paid workers hired on a permanent basis dropped by 22.8%, while the number of paid workers hired

[45] CELADE, *Boletín Demográfico* No. 23, Santiago, Chile, January 1979.

[46] Instituto Brasileiro de Geografía y Estadística, *Censo Agrícola de 1960* and *Censo Agropecuario de 1970*, published in 1967 and 1975, respectively.

[47] M. Urioste, "La economía del campesino altiplánico en 1976", Documento de trabajo N.° 02/77, La Paz, Universidad Católica Boliviana, 1977.

on a temporary basis increased by 36.6%.[48] In the case of El Salvador, no information is available on the trends with regard to the employment of temporary labour, but the census figures show that in 1970 the use of permanent labour had dropped by 45% with respect to 1960.

Finally, it would be worthwhile studying the trends observed among peasant farmers in those countries where the agricultural population is decreasing or in other countries where, although it is increasing in general terms, there are nevertheless certain areas where it is decreasing.

2. *The number of units of production*

If we compare censuses in order to ascertain the trends displayed by land distribution structures, we see a continuation of the upward trend in the number of productive units. In a group of eight countries[49] which had carried out censuses both in the 1960s and the 1970s, the number of 'units of exploitation' having an area of 20 hectares or less[50] rose from 4.7 million to 6.5 million, i.e., by 38.5%. This suggests that the type of unit most representative of peasant agriculture is increasing.[51]

Colombia is one of the countries where there has been a decline in the number of small farms, and this has led to a controversy, as yet unresolved,[52] as to whether peasant agriculture is going through a process of decomposition or whether it is still alive. Moncayo and Rojas[53] hold that in the case of Colombia, the number of plots and their areas are undervalued in the 1960 and 1970 censuses, as it is very clear that, taking only the stratum of farms larger than 2 000 hectares, there is quite a large number of small producers, i.e., 36 899 when the tenants and settlers living on the large farms are added. If this number of small units and the corresponding area were taken into account in making a comparison between the situation in 1960 and in 1970, there would certainly be no reason to conclude so definitely that small-scale production is declining.

Taking account of the trend with regard to the number of production units over a longer period of time, it becomes clear that this trend had been registered for several decades in certain countries; thus, for example, in Brazil the total number of units having an area of less than 50 hectares has increased 2.9 times between 1940 and 1970 (see table 8).

How should we interpret such processes as the above? Have changes withing the *hacienda* meant that the peasants working on it, or the new contingents of the peasant population, have shown a tendency to settle in the areas not taken by the *hacienda* or the new agricultural enterprise?

The number of peasant units usually expands when the following situations exist:

(a) Most often, the number of units increases as a result of subdivision, one of the most universal causes of which is inheritance.

(b) Sometimes there is a division of units in *hacienda* agriculture and in some cases in entrepreneurial agriculture activities as well, as a result of large or small-scale agrarian reform processes. Thus, in the Andean Pact countries 1 190 000 peasant families have obtained access to land ownership through agrarian reform during the last three decades.

(c) Another highly significant trend in Latin America has been the advancement of the agricultural frontier. It is estimated that around

[48] Departamento de Economía Agraria, Universidad Católica de Chile, *Panorama Económico de la Agricultura* No. 10, May 1980, p. 4. This information refers to the region between Coquimbo and Llanquihue.

[49] Brazil, Chile, Colombia, Costa Rica, El Salvador, Honduras, Peru and Venezuela.

[50] It should be noted that the analysis according to size falls into considerable oversimplification, as it considers together units that are entirely different as regards the magnitude of production and the very nature of the productive process; nevertheless, according to Graciano da Silva *et al.*, *op. cit.*, p. 72, the distribution of production units by value strata in Brazil reflects, *grosso modo*, the distribution by total area.

[51] These figures should be viewed with caution, as they raise certain problems that are difficult to clarify with respect to the definition and use of the concept of 'exploitation', which in some cases may not be the same as "unit of production".

[52] See, for example, S. Klamanovitz, *Desarrollo de la agricultura en Colombia*, Bogotá, Ed. La Carreta, 1978.

[53] See V. Moncayo and R. Rojas, *Producción y capitalismo*, Bogotá, Centro de Investigación y Educación Popular (CINEP), 1979, pp. 146 and 147.

Table 8

BRAZIL: NUMBER OF AGRICULTURAL UNITS, ACCORDING TO SIZE

Agricultural units	1940	1950	1960	1970
Less than 1 hectare	39 305	50 252	133 477	396 846
From 1 hectare to less than 10	615 252	660 682	1 361 543	2 122 784
From 10 hectares to less than 20	315 676	345 185	546 079	768 448
From 20 hectares to less than 50	455 057	488 044	672 675	824 090
Less than 50 hectares	1 425 290	1 544 163	2 713 774	4 112 168
50 hectares or more	479 299	520 479	623 995	811 851
Total	*1 904 589*	*2 064 642*	*3 337 769*	*4 924 019*
Indexes (1940 = 100)				
Less than 1 hectare	100.0	127.85	339.59	1 009.66
From 1 hectare to less than 10	100.0	107.38	221.30	345.03
From 10 hectares to less than 20	100.0	109.35	172.99	243.43
From 20 hectares to less than 50	100.0	107.25	147.82	181.10
Less than 50 hectares	100.0	108.34	190.40	288.52
50 hectares or more	100.0	108.59	130.19	169.38
Total	*100.0*	*108.40*	*175.25*	*258.54*

Source: 1960 Agricultural Census and 1970 Agricultural and Livestock Census. Prepared by the CEPAL/FAO Joint Agriculture Division.

140 million hectares of land were incorporated through the formation of new agricultural units in frontier areas between the 1950s and the early 1970s. Accordingly, approximately one-third of the land area of Latin America is now used for agricultural production. One of the phenomena that has been noted in the new agricultural areas is the reproduction of the structural conditions existing in the older agricultural regions. This means that these areas display the same agrarian heterogeneity already noted, including peasant agriculture.

3. *The size of the units of production*

A third trend as regards structure is the gradual decrease in the average size of the production units. Data from the same 8 countries which carried out agricultural censuses during both the 1960s and the 1970s showed: (a) that the average size of units had decreased from 55.8 to 48.7 hectares; (b) that the average size of the units having more than 20 hectares dropped from 197.2 to 183.3 hectares during the 1970s; (c) that the average size of units in the strata having less than 20 hectares had decreased from 4.9 to 4.7 hectares (see table 9).

As the averages considered above refer to very broad aggregations, the figures given do not fully show the seriousness of the problem, and the situation is actually much more serious among the smaller size categories, where the number of exploitations and their population increased the most. Thus, for example, in Brazil the total number of units multiplied 2.6 times between 1960 and 1970, but the number of units having less than one hectare multiplied 10.1 times and those between 1 and 10 hectares increased 3.5 times.

These trends are occurring within the unequal land distribution structure that still exists. In the same 8 countries, taken as a whole, units of more than 20 hectares covered 93.5% of the total area used for agriculture in 1960, whereas in 1970 these strata covered only 92.7% (see table 9).

4. *Peasantization and proletarianization*

Although the general indicators for the region

Table 9

LATINA AMERICA: NUMBER OF UNITS, TOTAL AREA UTILIZED AND AVERAGE SIZE OF AGRICULTURAL UNITS IN EIGHT COUNTRIES[a]

Number of units	Thousands of units				Variation	
	1960	Percentage	1970	Percentage	Absolute	Percentage
Agricultural units of less than 20 hectares	4 717	73.5	6 516	75.4	1 798	38.1
Agricultural units of 20 hectares or more	1 699	26.5	2 126	24.6	427	25.1
Total	*6 416*	*100.0*	*8 642*	*100.0*	*2 226*	*34.7*
Total surface utilized	**Millions of hectares**				**Variation**	
	1960	Percentage	1970	Percentage	Absolute	Percentage
Agricultural units of less than 20 hectares	23.1	6.5	30.8	7.3	7.7	33.3
Agricultural units of 20 hectares or more	335.1	93.5	389.6	92.7	54.5	16.3
Total	*358.2*	*100.0*	*420.4*	*100.0*	*62.2*	*17.4*
Average size	**Hectares per agricultural unit**				**Variation**	
	1960		1970		Absolute	Percentage
Agricultural units of less than 20 hectares	4.9		4.7		−0.2	−4.1
Agricultural units of 20 hectares or more	197.2		183.3		−13.9	−7.1
Total	*55.8*		*48.7*		*−7.1*	*−12.7*

Source: Prepared by the CEPAL/FAO Joint Agriculture Division, on the basis of the relevant agricultural censuses.

[a]Brazil, Chile, Colombia, Costa Rica, El Salvador, Honduras, Peru and Venezuela.

show that the peasantry is growing from the standpoints of both population and number of units of production, a phenomenon of depeasantization is taking place simultaneously. There are areas where the peasantry is shrinking, others where it is growing, and still others where it is coming back and increasing by starting agricultural activities in places where there had previously been none. For example, in the Venezuelan states closest to Caracas or to Valencia (Aragua, Carabobo, Lara, Miranda, Sucre, Yaracuy), there is a net reduction of the peasantry, but in other states in the Llanos, small farming and stock raising have increased moderately.

The result is a sort of mosaic where there are both peasantization and depeasantization. At all events, the hypothesis that peasant forms of production are breaking down or disappearing appears to be debatable, at least as regards the foreseeable future. It seems most likely that peasant agriculture will remain on the agrarian scene of Latin America for a long time to come, and in view of its social significance it does not seem possible to ignore its existence.

5. *Partial depeasantization at the family level*

Analysis of the migratory processes observed reveals that this phenomenon appears most frequently among the young population; thus, if the family is taken as the basic unit, one might speak of a relative depeasantization, since some family members leave agriculture even though a smaller nucleus remains to keep up and work the farm. It has been adequately

shown that migration is selective by age and sex, as the highest rates are to be found among the young population of between 15 and 30 years of age, the majority being women migrating to the cities.[54] This gives rise to remittances and mutual exchanges which in some cases help to give peasant agriculture greater permanency and stability.

6. *Semiproletarianization*

In discussing the issues relating to size of units (39% of which are smaller than two hectares) and family income, it was demonstrated that a significant part of the peasantry lives in a situation of semiproletarianization. It appears that in future this might well become the prevailing situation, in view of the inadequate absorption of the labour force both within and outside agriculture. This makes peasant agriculture a shelter for the labour force, which enters and leaves the labour market according to the conditions of that market. That is why the question of the semiproletarian peasant deserves more attention; another issue which has not yet been dealt with and which constitutes a phenomenon quite opposite to proletarianization or semiproletarianization is the advance of the bourgeois mentality among the higher strata of the peasantry, described, perhaps inadequately, as the transition from peasant to farmer.[55]

7. *Minifundization and depeasantization*

Given certain economic conditions, one might wonder what form agricultural activity takes when it only provides a minimum base for a survival strategy in which other activities play a predominant role as the main source of income. This phenomenon, which some view as a form of depeasantization, has been studied in depth in the case of the central region of Peru (Valle del Mantaro),[56] where 'minifundization' is on the increase and the *comunero* leaves his community for several years to work in the mines, although his economic and social interest continue to be centred in his original community, where his family, land and livestock remain.[57] Savings and investments may in some cases be oriented towards these communities, giving rise to the initiation of tertiary activities or small-scale manufacturing; such communities then take on a structure parallel to that of the urban system, inasmuch as their activities tend to become diversified (commerce, transport, crafts and small manufactures). In other cases, the *comuneros'* work in the mines allows them to organize a move to the city; however, upon becoming urban migrants, they still do not lose their social and economic ties with their community, where at the same time they have resources that are managed by family members or peons. In neither case does the *comunero* permanently break his ties with the land and bring about indefinite 'minifundization'; instead, the areas involved become residential centres whose population's economic activity is mainly outside the community. The family becomes a key element in the articulation of the different tertiary, peasant and mining activities.

Campaña and Rivera conclude that, with regard to certain communities, it is difficult to apply the concept of the peasantry to a significant number of the landowners, because while they often invest the capital from their outside income in land or livestock, they mainly invest it in business and transport outside the community.[58]

[54] Raúl Urzúa, "Estructura agraria y dinámica poblacional", CELADE, Documento de Trabajo N.° 7, Santiago, Chile, May 1978, p. 49.

[55] This expression is not felt to be really adequate; in our view, a Latin American peasant accumulates by acquiring more land or using more labour rather than by seeking capital as the farmer does.

[56] P. Campaña and R. Rivera, "El proceso de descampesinización en la Sierra Central del Perú", in *Estudios Rurales Latinoamericanos*, Vol. 1, No. 2, May-August 1978, pp. 78-80.

[57] Bryan Roberts calls this process migration of labour in order to distinguish it from temporary migration or urban migration. See *Ethnica* magazine, Barcelona, 1973, No. 6.

[58] P. Campaña and R. Rivera, *op. cit.*, p. 83.

VI

Peasant agriculture: its dynamics or capacity for change

In the introduction to this paper, we pointed out the need for revising certain interpretations according to which traditionalism, a lack of incentives or profitability for investment, or the prevailing relationship of dependency have led to a state of stagnation in peasant agriculture. Moreover, according to these views, the economic growth and underlying forces of development in Latin American agriculture have been brought about by the modern, entrepreneurial segment.

In referring to the economic significance of peasant agriculture, we have already pointed out the existence of various indicators or items of experience which show that it has undergone a certain process of productive growth. In this section, we discuss some of the elements which might explain the origin of the changes that are taking place within peasant agriculture, concentrating our attention on three of them, namely: markets, needs or aspirations, and demographic pressures.

1. *The markets and changes in peasant agriculture*

With respect to the markets, the data already given above reaffirm the view that peasant agriculture has become increasingly articulated through them. In this regard, the notion that it is marginated from them does not seem to have any validity. Moreover, in our view, peasant agriculture is functional within the overall economic system to the extent that it participates in the agricultural product markets by offering staple foods at low prices. We have also mentioned the participation of peasant producers in the labour markets and the semiproletarianization that has long affected this sector.

There are authors[59] who quite rightly continue to postulate the distinction between 'wealthy peasants' and 'poor peasants', since the former presumably have the capacity to become more closely linked with the markets. Nevertheless, participation in the product markets is not limited to those who have a surplus in the strict sense of the word; rather, such participation is generated by the need to obtain money: a phenomenon which affects a high percentage of producers. The structure of production sometimes makes it necessary to sell most of the crop, as in the case of vegetables, fruits, coffee, cocoa, etc. To sum up, one might say that despite the diversity of situations, the influence of the markets does indeed extend to peasant agriculture, and at the same time, the mercantile part of the peasant economy is not independent of the non-mercantile part.

2. *Basic needs and economic behaviour*

It is almost trite to speak of the relationship established between the productive activity of the peasant family and the satisfaction of its needs. The distinction between the productive unit and the consumption unit tends to become blurred in reality. In view of this interdependence of the two phenomena, special attention should be paid to any change in values, aspirations and needs. If peasant populations develop and project these changes onto their economic activities, the cultural and social changes that tend to modify traditional customs and habits will also give rise to different forms of behaviour. The 'cocoon of habit' in which peasants lived, according to some anthropologists, has almost always turned out to be very weak.[60]

For all these reasons, the development of peasant agriculture must be examined both in the light of the effect of demographic pressures and from the standpoint of changes in the level of needs. Thus, we maintain that the phenome-

[59] See, for example, P. Vilar, "La economía campesina", in *Historia y Sociedad*, Mexico City, 1975, Segunda época, N.º 15.

[60] W. Thiesenhusen, "Los años ochenta, ¿década del campesino?", in *Estudios Rurales Latinoamericanos*, Bogotá, Vol. 2, N.º 2, p. 224, May-August, 1979.

non of simple reproduction, so often linked to peasant agriculture, is not uniformly or constantly expressed over time. We hold that the thresholds of minimum levels of living keep rising and hence are dynamic: we do not believe, therefore, that they can be understood from a purely biological perspective but rather that they must be viewed from a cultural standpoint.

In this regard, the rural population has experienced impact of:

(a) *The extension of educational programmes.* Enrolment in primary education in the rural areas of Latin America rose from 8.8 million in 1957 to 19.0 million in 1975, according to UNESCO data,[61] and primary teaching personnel increased threefold during the same period. Significant progress has also been made with regard to illiteracy levels, even though they are still quite high.

(b) *The development of the communications media.* It seems almost unnecessary to go into detail in this connexion. Suffice it to say that the variety of messages that reach the rural population through the communications media, especially radio, is enormous, and that cultural distances as regards information levels, have been reduced considerably. A survey carried out among peasant families in the Cochabamba Valley in Bolivia[62] showed that 90% of them owned radios.

(c) *The expansion of the transport infrastructure.* The movement of peasant families has been made increasingly easy: this has contributed to an intensification of rural-urban relations and has modified the degree of physical integration of relatively remote rural areas. The length of paved highways increased from 59 000 kilometres in 1959 to 270 000 in 1977, and the total length of all kinds of highways is estimated to have increased from 964 000 kilometres to 2.4 million kilometres during the same period.[63]

(d) *Urban-rural contacts.* In addition to the changes noted above, peasant populations have been gradually increasing their contacts with urban populations. Urban growth, migrations from rural areas, intensified trade relations, transport facilities and communications, as mentioned above, have multiplied the opportunities for contact between the two sectors, thus contributing to a change in the traditional attitudes, values and habits of the rural populations.

These and many other factors have been working together in a lengthy process whereby the perceived level of basic needs has risen among the peasant populations. This phenomenon has gone hand in hand with an increase in these populations and has determined the economic behaviour of peasant agriculture.

3. *Demographic pressures*

Reference has been made to the growth of the peasant population and the fact that these persons usually live on the smaller units, leading to an assumed increase in pressure on the land available, to a reduction in the average size of units and, in general, to greater population density in certain areas.

These phenomena, which are discussed here under the concept of demographic pressures, are also considered to be interacting with the dynamics of the needs just mentioned and with the gradual articulation of peasant agriculture with the markets.

The Malthusian position is often adopted with regard to this complex of interlinked phenomena, with the issue being discussed in terms of the inelasticity of the food supply, a factor which is said to determine the population that this type of agriculture could support or its growth rate. According to Boserup,[64] this new version of the Malthusian doctrine is based on the idea that an increase in population leads to the destruction of the soil. Neomalthusians, she says, bring up every example of poor soil use to paint a picture of the world

[61] UNESCO, Regional Educational Office for Latin America and the Caribbean, *Informaciones estadísticas*, Santiago, Chile, October 1976.

[62] F.J. Dorsey, *A Case Study of the Lower Cochabamba Valley*, Land Tenure Center, University of Wisconsin, Madison, June 1970, p. 68.

[63] International Road Federation, *Highway Expenditures, Road and Motor Vehicle Statistics, 1959-1969*, Washington D.C.; and CEPAL, *Statistical Yearbook for Latin America, 1978*, United Nations, Santiago, Chile, p. 428.

[64] Ester Boserup, *Las condiciones del desarrollo en la agricultura*, Madrid Ed. Tecnos, 1967, p. 35.

as a place where prowing populations are crowded together and compete for a potential food supply which is not only incapable of increasing in quantity, but which is actually being reduced by the very behaviour of those growing populations.

The role of population in bringing about changes in farming systems has been evident, historically, when there have been demographic regressions. Boserup states that when population density declines as a result of wars or other catastrophes, there often seems to be a return to more extensive cultivation systems. Latin America is the grouping of countries that has suffered the most demographic regressions over the past few centuries. Many parts of the region, she claims, have not yet regained the population density of pre-Columbian times, and the indigenous populations has experienced regressions in its agricultural techniques.[65]

4. *The intensification of land use*

According to the author quoted above, demographic pressures bring about a change in the use of the available land, which is reflected in the frequency of planting. When population pressure increases, one crop after another may be planted, so that fallow land will tend to disappear.

Some data seem to confirm this form of intensification and development of production. In both Brazil and Peru (as mentioned before with regard to Ecuador), there has been an upward trend in the proportion of peasant farm area cultivated with respect to the total area of the units. In Brazil, units of less than 50 hectares cultivated 47.0% of their total area in 1960, whereas in 1970 the proportion was 52.1% (see table 10).

In Peru, units of less than 20 hectares cultivated 54.8% of their total area in 1961, whereas in 1972 the proportion was 69.0%.

In both cases, one might think that what has actually happened is not that there has been a net increase in cultivated area but that there has been a change in the size of units, which when divided fall under a different category. This could be particularly true in the case of Peru, where land has been redistributed through agrarian reform.

That explanation is not sufficient, however, because in both cases there has been an increase in total cultivated area and, in particular, an analysis of land use in each size category clearly shows that as the size of the productive unit decreases, land use is intensified. In the case, of Brazil, while units of from 2 to 5 hectares cultivate 72.8% of their total area, those having 50 to 100 hectares cultivate only 16.9% (see table 11).

In commenting on this phenomenon, which was verified by comparison of the cadasters for 1965 and 1972, Graciano da Silva,[66] notes that in Brazil there was a decrease in unused areas among the lower strata, probably due to the heavy population pressure that is characteristic of small properties. This pressure leads to a greter use of the land for crops and livestock. Forest areas are also put to use again and are accordingly reduced, particularly on units of up to 10 hectares, where they decrease by around 50%. In other words, when a population grows and the possibilities for expanding the agricultural frontier are exhausted, the land tends to be cultivated more intensively, which means that planting is more frequent (for example, two or more crops per year) and lands formerly considered unproductive are now utilized (Boserup, 1965). In Brazil, this was observed in the Northeast as early as the 1950s by Sá Jr. (1975) and by Graciano da Silva (1974), for Brazil as a whole, during the 1960s. Both authors point to an increase in the number of persons employed and in the percentage of area planted on the smaller establishments in an attempt to reduce to a minimum the unused areas of these properties in view of the fact that the virtual monopoly of land ownership in the country continues.

Analysing this phenomenon from the standpoint of gross income, the same author states that its distribution among the production units shows a lower degree of concentration than that of land ownership. This leads to the conclusion that small properties produce at a more intensive rate, not in most cases as the

[65] *Ibid.*, pp. 104 and 105.

[66] F.J. Graciano da Silva *et al.*, *op. cit.*, pp. 88 and 89.

Table 10

TOTAL AREA AND CULTIVATED AREA OF AGRICULTURAL UNITS BY SIZE RANGES, 1960 AND 1970

(Thousands of hectares)

Agricultural units	1960[a]				1970[a]			
	Total area	Percentage	Cultivated area	Percentage	Total area	Percentage	Cultivated area	Percentage
Brazil								
Total	*249 862*	*(100.0)*	*28 712*	*(100.0)*	*294 145*	*(100.0)*	*33 983*	*(100.0)*
Less than 50 hectares	34 455	(13.8)	13 500	(47.0)	45 251	(15.4)	17 698	(52.1)
50 hectares or more	215 406	(86.2)	15 211	(53.0)	248 894	(84.6)	16 284	(47.9)
Peru[a]								
Total	*17 722*	*(100.0)*	*1 934*	*(100.0)*	*23 545*	*(100.0)*	*2 271*	*(100.0)*
Less than 20 hectares	1 923	(10.9)	1 059	(54.8)	3 596	(15.3)	1 567	(69.0)
20 hectares or more	15 798	(89.1)	874	(45.2)	19 948	(84.7)	704	(31.0)

Source: For Brazil: Instituto Brasileiro de Geografía y Estadísticas, "Censo Agrícola de 1960" and "Censo Agropecuario de 1970"; for Peru, Oficina Nacional de Estadísticas y Censos, "Primer Censo Nacional Agropecuario, 1961" and "II Censo Nacional Agropecuario, 1972". Prepared by the CEPAL/FAO Joint Agriculture Division.

[a]For Peru, the census years involved were actually 1961 and 1972.

Table 11

BRAZIL: LAND UTILIZATION ACCORDING TO SIZE OF AGRICULTURAL UNITS, 1970

(Thousands of hectares)

	Total area	Permanent crops	Temporary crops	Total area cultivated	Percentage of total area cultivated
Total agricultural units	*294 145*	*7 984*	*25 999*	*33 983*	*11.55*
Less than 1 hectare	236	16	202	219	92.87
From 1 hectare to less than 2	657	48	522	517	86.91
From 2 hectares to less than 5	3 003	351	1 834	2 186	72.80
From 5 hectares to less than 10	5 186	673	2 340	3 013	58.11
From 10 hectares to less than 20	10 742	1 049	3 662	4 711	43.86
From 20 hectares to less than 50	25 424	1 520	5 475	6 995	27.52
From 50 hectares to less than 100	23 902	1 059	2 976	4 036	16.89
100 hectares or more	224 992	3 264	8 984	12 248	5.44

Source: Instituto Brasileiro de Geografía y Estadística, *Censo Agropecuario de Brazil, 1970,* July 1975. Prepared by the CEPAL/FAO Joint Agriculture Division.

result of real capitalization of the unit, but rather because of the extension of the working day of the producer and his family.[67]

In the case of Peru, in addition to the relationship between cultivated area and total area, which follows the same pattern as in Brazil (see table 12), the relationship between cultivated area and area suited for planting was established in order to leave out the lands not considered arable. The result of this analysis confirms the same trend, i.e., that as the unit decreases in size the proportion of cultivated land increases.

5. *Additional data*

In Bolivia, in the areas where agriculture has been practiced for centuries past and where agrarian reform gave rise to a predominantly peasant agriculture, the increase in agricultural population (over 35% between 1950 and 1976) went hand in hand with an intensification of planting through a shortening of crop rotation; the land is cultivated more frequently and thus there are fewer rest periods. The area harvested annually in this cold-temperate climate zone increased by 59% between 1950 and the triennium 1974-1976.[68]

A recent study carried out in Mexico[69] concludes that the states in the centre of the country had, on average, a better share of selected crops, greater population density and higher agricultural growth rates.

6. *Changes associated with intensification*

At least two phenomena should be mentioned which are usually associated with the intensification process. The first is *investment*, which is sometimes undervalued because each individual investment is quite small. The most important type of investment in peasant agriculture is that which pertains to the transformation and adaptation of the environment in order to make it suitable for cultivation or to intensify agriculture. Transformations in the landscape are related to the above-mentioned demographic pressures and food and production requirements in general. In the past, gigantic efforts were made to clear forest land for farming in the midst of conflicts for control over the resource in which the peasants or indigenous groups were the losers. The anarchical advance of agriculture created a propitious environment for concentration on the one hand and the creation of extreme situations on the other. The present-day Brazilian experience with regard to the swallowing-up of smaller properties by the larger ones in frontier areas is well known. "Large properties are formed, linked in most cases to agricultural and stockraising companies that benefit from the incentives provided by the State and its willingness to 'look the other way', and thus expropriate the small producers; this process is not free of the violence that is characteristic of the birth of capitalism." Graciano da Silva[70] goes on to say that "the result of this expulsion is a form of expansion of the frontier that is fraught with conflict and in which the balance always favours the large properties".

Some forms of non-guaranteed tenure, such as the type observed within the *hacienda*, were frequently designed to take advantage of peasant labour to clear forest land or perform other work aimed at making the land suitable for farming.

Under certain conditions, works were undertaken with the united effort of the community in such fields as drainage, flood control in low-lying lands and construction of irrigation infrastructure.

Extreme demographic pressure on hilly land led to one of the most radical changes made in the landscape, i.e., the construction of terraces. The Andean area is full of examples of this development. At the present time, in the central zone of Mexico, which has the greatest population density and where the most ancient native cultures have lived, new tenacing is still being undertaken.

[67] F.J. Graciano da Silva *et al.*, *op. cit.*, p. 242.

[68] CEPAL/FAO Joint Agriculture Division, *La agricultura y las relaciones intersectoriales..., op. cit.*

[69] D.T. Nguyen and M.L. Martínez Saldívar, "Pattern of Agricultural Growth in Mexican States, 1960-71: A Shift and Share Analysis", Department of Economics, University of Lancaster, Bailrigg, Lancaster, United Kingdom, in *Regional Studies*, Vol. 13, Pergamon Press Ltd., 1979, pp. 161-179.

[70] J.F. Graciano da Silva *et al.*, *op. cit.*, pp. 91 and 94.

Table 12

PERU: LAND USE ACCORDING TO SIZE OF AGRICULTURAL UNITS, 1972

(Thousands of hectares)

Agricultural units	Total area	Arable land			Permanent crops	Cultivated area	Percentage of arable land planted with temporary crops	Percentage of the total area cultivated
		Total	Temporary crops	Fallow lands				
Total agricultural units	*23 545*	*3 143*	*1 978*	*1 164*	*292*	*2 271*	*62.96*	*9.65*
Less than 1 hectare	185	93	71	21	3	75	77.16	40.65
From 1 hectare to less than 2	349	288	211	76	10	222	73.54	63.69
From 2 hectares to less than 5	1 025	749	506	242	40	546	67.59	53.30
From 5 hectares to less than 10	1 010	584	366	218	51	417	62.67	41.33
From 10 hectares to less than 20	1 025	422	249	173	55	305	58.94	29.74
From 20 hectares to less than 50	1 339	324	177	147	61	238	54.60	17.84
From 50 hectares to less than 100	843	145	80	65	25	105	55.20	12.55
100 hectares or more	17 765	534	315	219	44	359	58.96	2.02

Source: Oficina Nacional de Estadísticas y Censos, *II Censo Nacional Agropecuario, 4 al 24 de setiembre de 1972. Resultados definitivos. Nivel Nacional*, Lima, April 1975. Prepared by the CEPAL/FAO Joint Agriculture Division.

Along with the transformation of the environment, sizeable investments are also made in some crops, especially in the case of permanent crops, which peasants plant on quite a large scale. Coffee, cocoa and vineyards are well-known examples.

In brief, the Latin American experience provides many examples of the investment of labour in activities meant to make agriculture possible or to intensify it under certain conditions. The environmental effect of such efforts cannot be considered separately from the context of conflicts within which they were carried out. Nor should one underrate the investment capacity of peasant agriculture and the possibility of orienting and collaborating with it in order to avoid any possible negative effects.

We would therefore suggest that the hypothesis according to which peasant agriculture has no capacity for accumulation should be revised; the fact is that the nature of the intervention is different. Its components are not acquired outside of agriculture nor do they contain significant amounts of modern technological inputs. Peasant investment is based on familiarity with the environment and it makes use, fundamentally, of an abundant resource such as labour, which is applied in order to modify the physical environment, to provide drainage, to irrigate, to improve the land. In general, the peasant builds his own houses and other simple constructions which he needs, although only on a modest scale and with such materials as the environment provides him. Peasants also take part in the construction of communal or neighbourhood infrastructure works such as wells, bridges and facilities for social life. Unfortunately, there are no quantitative data to illustrate the significance of this particular type of investment by the peasant.

7. *Technology and peasant agriculture*

The difficulties encountered in trying to incorporate modern technology in peasant environments are well known, particularly among

agronomists;[71] some experiences with agricultural extension programmes are enlightening in this regard. This situation has provided an incentive to reflect on the universal character of such technologies and on their economic, social and even environmental viability.

Clearly, one of the most obviously unsuitable attempts to modernize peasant agriculture has been that which concerns sources of energy and mechanization. In this regard, Figueroa[72] points out that in Peru, the fact that mechanization and quasi-mechanization are virtually non-existent in the *sierra* region may be largely explained by three factors. In the first place, the topography of the *sierra*, contrary to that of the coast, is very irregular and has few flat areas; this physical fact resulting from the presence of the Andes makes it very difficult, of course, to use agricultural machinery. In the second place, the great majority of production units are very small: 36% of them have less than one hectare and 81% have less than 5 hectares. To this must be added the considerable fragmentation of the small units. The units of less than 5 hectares comprise, on average, 6 plots; to move a tractor among 6 plots located at different ecological levels, with no road infrastructure, is almost impossible. More mechanized technologies can only be used on units that exceed a certain minimum size. In the third place, the large units, which have the largest flat spaces in the *sierra*, are used mainly for stock raising, which does not have much need for mechanization.

The aforementioned factors should provide an indication of how, as in the case of energy sources, modern technologies are paradoxically inadequate when compared with traditional ones. In other words, the problem of mechanization in the *sierra* is not only a problem of relative prices and capacity for accumulation, but also a problem where physical factors, ownership structure and productive structure (a mixture of agriculture and stock-raising) play an important role.

Along with the lack of viability of the technological 'package', including the changes in the type of energy to be used, questions are being raised about the appropriateness of the basic assumptions on which technological innovation rests and the conditions under which peasant agriculture operates from the socio-economic standpoint. On some occasions, when it is felt that certain technologies would make it possible to raise physical production, programmes are formulated that are designed to bring about such changes. In other cases, arguments pertaining to the profitability of these innovations are thought to provide sufficient justification. Thus, there ensues a sort of dialogue of the deaf, since the two rationales are different and there is little chance of their understanding each other: on the one hand, there is the logic of basic needs and reproduction, and on the other, the logic of profitability. To adopt technologies that involve the incorporation of inputs available on the market may be, from the peasant's point of view, a destabilizing element, as they will require him to monetize his economy even more and increase his dependency on the market. For the peasant, it really is not sufficient to be presented with technologies that are only justified in terms of their potential for raising yields or providing for a positive cost-benefit ratio.

Unfortunately, we do not yet know enough about the factors that lead peasants to introduce certain innovations, but it seems that they draw up a kind of balance-sheet as regards the relative availability of resources before introducing any new developments which might make them lose control over their own fate. The relative abundance of labour may lead them to accept certain changes which, though requiring greater effort, will also increase their harvests. The extreme shortage of land and the need for increasing production may encourage them to use improved seed or fertilizers.

Urioste,[73] in referring to the Bolivian *alti-*

[71] See the interesting work by J. Boltvinik, "Estrategia del desarrollo rural, economía campesina e innovación tecnológica en México", in *Revista de Comercio Exterior*, Mexico City, Vol. 26, No. 7, July 1967, pp. 813-827.

[72] A. Figueroa, "La economía rural de la Sierra peruana", in *Economía*, Vol. I, No. 1, Departamento de Economía de la Universidad Católica del Perú, Lima, December 1977.

[73] M. Urioste, *Conducta económica del campesino e incorporación de tecnología moderna en el proceso productivo: El cultivo de la papa en el Altiplano Paceño*, Universidad Católica Boliviana, Documento de Trabajo N.º 06/75, La Paz, 1975, mimeographed, pp. 62 to 65.

plano, holds that the surveys confirm the general theoretical postulates: i.e., that the smaller the area, the more intensive is cultivation, whereas, as area increases, the participation per hectare of capital (chemical-biological technology) and labour decreases. However, this phenomenon of fragmentation takes place simultaneously with the adoption of farming techniques (chemical fertilizers, improved seed) which to a certain extent offset the shortage of land. Urioste summarizes the conclusions of his research in the Bolivian *altiplano* as follows: "*The peasantry adopts technology (improved seed, chemical fertilizers...) not to improve his monetary income, but mainly to compensate for a scarce resource —land—, improve his yields and thus ensure for himself a 'normal' level of subsistence*".[74]

Moncayo and Rojas[75] propose a similar thesis for the Colombian experience: "It is the very nature of the form of production which makes the producer refuse to use any kind of cost accounting. Thus, in his eagerness to guarantee his subsistence, not only is he not displaced by falling prices for agricultural goods, but rather he intensifies his production in order to make up, by increasing supply, the income deficiencies caused by low prices or he introduces more advanced techniques aimed at producing the same results. The variation in productivity that is imposed by the need to maintain a minimum level of subsistence closely links the producer with the market for products of industrial origin that are used as inputs for more technified production, the prices of which, being based on the logic of the rate of profit, also amputate the peasant's income, although in a different way. The prices of industrial inputs thus play a central role in limiting the peasant producer's income independently of the prices of agricultural goods offered by peasant production. They also operate as mechanisms which prevent the process of decay of the peasantry and the parallel establishment of new capitalist entrepreneurs".

Many case studies confirm that some changes are taking place: for example, the use of improved seed (particularly potatoes, maize, rice) is gradually spreading; certain cultivation practices are being changed as regards density of planting in potatoes, cassava, maize and sugar cane, and some pesticides are being used for vegetables (onions and tomatoes). Of all these changes, the most remarkable may be the change in potato-growing in the Andean area where, in view of the traditional custom of 'changing seed' it has been easier to introduce genetically improved seed, while at the same time, because of the habit of using organic mannoes, the use of chemical fertilizers of industrial origin has gradually been extended. The Instituto Colombiano Agropecuario (ICA) even observed in some areas of the state of Santander that excessive doses of fertilizers were being used, which was affecting yields.

Some research centres are making progress in obtaining knowledge about the production systems created through the experience of many years, when, by trial and error, farming methods were gradually adjusted to the enormous variety of environmental situations that is characteristic of Latin America. This has made it possible to reorient agricultural research and experimentation to some extent (although only partly), bringing them out of their socio-economic and cultural isolation so as to look at peasant farming from a systemic perspective. Although it seems trite to say so, the value of knowledge as a vital element for development, beginning with the peasant experience itself, is being appreciated anew. In this way it has been shown how much progress can be made by enriching that experience with new knowledge. Thus, the prejudices maintained against the 'traditional' simply because it lacks features that tend to be associated with the 'modern' have been abandoned, at least to some extent. It is rather ironic that it should take experience itself to show the scientists that research must begin with the objective knowledge of the reality they seek to change.

A second positive consequence of this new approach of agricultural research is a growing appreciation of farming methods which are now seen to have advantages that had previously been ignored or looked down upon.

It has been shown that the practice of leaving land fallow in certain areas of the Central

[74] *Ibid.*, p. 75.
[75] V. Moncayo and F. Rojas, *op. cit.*, pp. 94 and 95.

Valley of Chile, often considered to be poor use of the soil, actually not only makes it possible to recover fertility but also has the positive effect of preserving moisture and preventing, disease or pest attacks.

Traditional fertilizing techniques whereby legumes are turned under in crop rotation, so frequently used in the Andean area, are complemented with the incorporation into the soil of organic matter from the dung of animals or poultry.

Another well-known method is that used by peasants in hillside planting, who guarantee the success of their crops or ensure that they ripen in succession by planting at different levels of altitude.[76]

The advantages of production systems such as mixed or associated planting, if not joint planting ('relay'), as for example between maize or beans and cassava, have been established, both from the viewpoint of reducing vulnerability to certain diseases or pests, and from the viewpoint of total production compared with separate cultivation of each species.

The Instituto Colombiano Agropecuario (ICA), in studying the effect of modifying the density of planting in potato growing, has found that peasant farmers vary the quantity of seed used according to the date of planting in order to provide a ground covering that will allow for optimum use of the moisture in the soil. These subtle ways of adjusting to environmental conditions are a good example of the contribution that the experience of the peasantry can make to agricultural development.

Dubly[77] says that although peasant practices tend to be considered as contrary to agronomic techniques, in actual fact they are not mutually exclusive. Rational peasant practice is based on observation and experimentation, and these are the fundamental scientific approaches of the biological sciences (including their physical and chemical components) from which agricultural technology is derived. The difference is not so much one of nature as of degree of systematization. An analysis of peasant practices reveals that most of them have a real technical rationale; only after this effort to understand peasant practice is made can one think of technology as being the expansion, intensification or complementation of the peasant rationale. Thus, technology should not be the application from outside of a substitute practice which will subsequently be rejected, but should rather be something which is grafted into the heart of a reality and a rational practice.

Morandi,[78] suggests that in the underdeveloped countries there is a lack of articulation between the agricultural productive sector (the demand) and the public or private generating agencies (the supply), and concludes that "in the specific case at hand —i.e., the peasant economies, particularly in the *sierra* zone of Ecuador— there is no supply matching the type of demand originating in the small farms having the characteristics mentioned above. Indeed, it might even be said that the technology offered on the market is the negation of the technological needs of peasant economies. This lack of correspondence between demand and supply reflects a direct relationship between the type of technology offered and the State action promoted by the power structure of classes within society, while at the same time it provides one more argument for the view that technology is an endogenous factor of the economic system".

Another author,[79] also referring to the Ecuadorian experience, believes that the centres where agricultural research is conducted and technology generated, whether private or public, orient their activities towards the generation of innovations conceived for ap-

[76]See, for example, W.R. Werge, "The Agricultural Strategy of Rural Households in Three Ecological Zones of the Central Andes", International Potato Center, Social Science Unit, Lima, *Working Paper*, Series No. 1979-4 (mimeographed).

[77]A. Dubly, "Condiciones de la tecnificación para la agricultura campesina", in *Ecuador: Tecnologías agropecuarias y economías campesinas*, Quito, Ed. Fundación Brethren-Unida-Ceplaces, 1978, p. 42.

[78]J.L. Morandi, "Interrelaciones entre los componentes del progreso tecnológico y algunos elementos estructurales en economías campesinas", in *Ecuador: Tecnología agropecuaria..., op. cit.*, pp. 90 and 95.

[79]C. Furche, "Incorporación de tecnología y economías campesinas", in *Ecuador: Tecnología agropecuaria..., op. cit.*, p. 122.

plication in the 'modern' sector of agriculture, i.e., in those enterprises that are integrated into the capital accumulation circuits, with some development of productive forces.

In brief, as regards the incorporation of modern technology into the peasant environment, the following should be noted: (a) the difficulties in securing compatibility between peasants' needs and the existing supply of technology; (b) the selective penetration of some of these technologies which do actually respond to their needs and possibilities; and (c) the lack of interest in creating or adapting technologies for this large group of producers.

VII

Final comments

1. *Agrarian heterogeneity and the need for more coherent and balanced analyses*

In Latin America, western forms of penetration and settlement gave rise to a very special form of appropriation of land which has been documented by several authors. The existing structural characteristics are not too different from that initial appropriation, although they are also the result of a lengthy process of change. In this regard, the core of any coherent analysis of the agrarian experience of the region lies in the concept of heterogeneity of forms or systems of agriculture that coexist in the agricultural and rural environment. Only if this diversity is recognized can the behaviour of the various economic agents participating in agricultural activities, including peasants, be understood.

These structural characteristics continue to play a very decisive role in the ways in which the land is used, in the systems of cultivation or production, in the implements and technologies used, in the organization of the habitat and in the demographic dynamics linked to agriculture.

Agrarian heterogeneity did not come about by chance. It is the counterpart, in the agrarian sphere, of broader phenomena which have already been analysed at the regional level and which are related to the functioning of the world economic system, studied by CEPAL in terms of the centre-periphery relationship and also in its criticism of the classic scheme of international division of labour.

In those Latin American countries whose agriculture was developed to produce food and raw materials for the central economies, this has left its mark on the sector, as it is one of the elements that have contributed decisively to the shaping of its own differentiation or heterogeneity. As an agrarian economic system, the plantation was a good example of the effect, in agriculture, of the differentiating influence of relations with the centres. Subsequently, agricultural capitalism has often been founded on the production, sometimes through capital-intensive methods, of crops or livestock products for export. The very scale of export-oriented activities provides a good opportunity for the concentration of land ownership.[80]

In the past, peasant agriculture was mainly generated in the more populated zones, where there was greater structure and diversification in the social order and greater development in production, thus enabling the colonial régime to take out surplus products or labour without completely destroying the productive base of pre-Columbian agriculture. Different currents converged in its subsequent development, including the process of expansion of the agricultural frontier and transformation of the *hacienda* or entrepreneurial agriculture through revolution or reform; both influences made possible the expansion of peasant agriculture.

[80]It should not be forgotten, however, that peasant agriculture also makes a significant contribution to the production of some agricultural export commodities. In some countries, cocoa, coffee, cotton and soybeans are predominantly grown by peasants.

The various agrarian systems that coexist in the broad rural context of Latin America may be distinguished by certain specific characteristics. In this regard, it is necessary to distinguish at least the *hacienda* system of agriculture, plantation agriculture, entrepreneurial or capitalist agriculture and peasant agriculture.

Although each of these systems may be isolated in order to analyse and quantify it as regards resources, production and income, it is also necessary to point out certain interrelations and conflicts among them. For the purposes of this paper, we have sought to single out one of the systems —peasant agriculture— because in our view it suffers from seriously unbalanced treatment which, by a process of elimination, ultimately leads to the design or choice of strategies or policies that are harmful to a large social group. The predominance of the *hacienda* or capitalist-type enterprises in past analyses relating to agriculture has been obvious.

Historically, one of the most important aspects in the formation and evolution of Latin American agriculture has been the occupation of territories suitable for agriculture. The *hacienda* and plantation system was established on the basis of the granting or occupation of extensive territories frequently located in the most fertile zones or those closest to cities or ports. In the later *hacienda* formations observed in some countries, the appropriation of lands came about as a result of official intervention or expansion of the areas devoted to agriculture.

This process of formation and extension of the *hacienda* created the conditions that made it possible to relegate the native populations or the incipient groups of independent peasant producers to a subsidiary position. This conflict concerning the availability or ownership of the land, characteristic of heterogeneous social formations, has made itself felt with different degrees of intensity throughout the socio-economic history of the region.

In more recent periods, this conflict has arisen once again with the penetration of capitalist or entrepreneurial agriculture, which gradually took over the place of the *hacienda* or some of the territories obtained as a result of the advance of the agricultural frontier. Similar phenomena have been studied and documented in different agricultural settings, with the concentration tending to take place in the areas having the greatest comparative advantages, usually as a result of heavy public investment in infrastructure, and particularly irrigation. The cases observed in irrigated areas of Mexico or in the Central Valley of Chile are good examples of this situation. A similar phenomenon has occurred in the case of the extensive pasture lands in eastern Bolivia and in certain regions of Brazil, Colombia, Central America and Mexico.

The behaviour of agricultural activity clearly falls within the framework of this structural situation, which allows for the coexistence of different forms of agriculture. In the postwar years of modernization, peasant agriculture is a social and economic fact that is often viewed as something left over from the past, as an area that is stagnant, deteriorating, impervious to technology, and undergoing a process of decomposition. If we wish to seek a new style of development, however, we must accept the plurality of experiences that each agrarian system presents and try to make a more objective analysis and a more balanced formulation of strategies and policies. We must recognize agrarian heterogeneity in order to understand each of its elements and become familiar with its particular dynamics and contributions, as well as with its inefficient aspects, its pressures and sometimes its environmentally unsound actions without neglecting the conflicts inside and outside the sector.

2. *Alternative styles of development and peasant agriculture*

The omissions and particularly the generalizations aimed at disparaging peasant agriculture may be creating or contributing to a higly unrealistic view of its significance for the production of food, raw materials and export crops; for the use of labour; or for cultural aspects that have not been dealt with in this paper.

At the present time, when new impetus is being given to the notion of development styles that will allow for the satisfaction of basic needs, peasant agriculture may be particularly important because of the relationship it estab-

lishes between economic activity and the satisfaction of fundamental needs.

Likewise, at a time when the unemployment and poverty that accompany urbanization processes are recognized to be phenomena that call for profound social changes, peasant agriculture invites one to reflect on the role it could play if existing agrarian structures were changed to provide an opportunity to the numerous contingents that tend to be proletarianized or semi-proletarianized by the ongoing phenomena of concentration of land in the past and concentration of both land and capital in the present. Finally, if greater attention were given to peasant life, it might be possible to appreciate from a new perspective the contribution it could make to development forms that respect the environment and its resources over the long term.

The way to rural development can hardly be found by excluding from consideration the main agent of that development, namely, the peasant.