

UNITED NATIONS  
ECONOMIC COMMISSION  
FOR LATIN AMERICA  
AND THE CARIBBEAN - ECLAC



Distr.  
LIMITED  
LC/L.543  
22 February 1990  
ENGLISH  
ORIGINAL: SPANISH

---

ENTREPRENEURIAL FORMATIONS IN LATIN AMERICAN AGRICULTURE  
STARTING FROM RURAL PROPERTY STRUCTURES OF PRODUCTION

This study was prepared by Mr. Tonci Tomic, Consultant for the ECLAC/FAO Joint Agricultural Division within the framework of the project "The role of agricultural employers as a class in Latin America", financed by the Netherlands government. The opinions expressed herein are the exclusive responsibility of the author and may not necessarily coincide with those of the Organization.

90-2-241

## CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
Chapter I. HISTORICAL BACKGROUND OF ENTREPRENEURIAL FORMATIONS IN LATIN AMERICAN AGRICULTURE .....	3
A. GENERAL ASPECTS .....	3
B. CHARACTERIZATION OF INITIAL PRODUCTIVE FORMS.....	4
1. The plantation .....	4
2. The hacienda .....	5
3. The ranch .....	8
C. HISTORICAL EVOLUTION AND AGRARIAN CHANGE.....	9
D. MAIN OBSTACLES TO AGRICULTURAL MODERNIZATION.	13
E. DISPLACEMENT OF THE AGRICULTURAL SECTOR .....	14
F. EVOLUTION TOWARDS ENTREPRENEURIAL FORMS .....	21
Chapter II. CAPITALIZATION OF AGRICULTURE: ENTREPRENEURIAL FORMS AND TRANSFORMATION STRATEGIES .....	22
A. GENERAL BACKGROUND .....	22
1. State action .....	22
a) Agrarian reform .....	22
b) Public policies .....	25
c) The state as entrepreneur .....	26
2. Multinationalization of agriculture .....	26
3. Industrialization of agriculture .....	27

Chapter III. AGRO-ENTREPRENEURIAL DIFFERENTIATION: DETERMINANT ELEMENTS TYPOLOGIES.....	29
A. QUALITY OF NATURAL RESOURCES: ECOSYSTEMS AND REGIONS .....	29
B. LAND AS A PRODUCTION FACTOR .....	30
C. THE ROLE OF CAPITAL .....	30
D. MANAGEMENT CAPACITY .....	33
E. INCORPORATION OF TECHNICAL INNOVATIONS .....	34
F. SYNTHESIS OF ENTREPRENEURIAL PRODUCTIVE UNIT .....	35
Chapter IV. ENTREPRENEURIAL FORMS IN AGRICULTURE TODAY .....	51
Notes .....	55
BIBLIOGRAPHY .....	57

## INTRODUCTION

This document is set within the framework of efforts being made by the ECLAC/FAO Joint Agricultural Division to study the entrepreneurial sector of Latin American agriculture, and its main purpose is to collaborate in the discussion on the constitution of this sector, starting from the transformation of traditional productive structures of the region, that is, the plantation, the hacienda and the ranch.

In effect, agricultural modernization arises as much from the emergence of new organizations as from the transformation of traditional organizations, and this diversity of origins has given rise to the formation of a heterogeneity of productive forms. The so-called modernization of agriculture is neither a process nor a uniform result, and neither are the socioeconomic transformations implicit in it. Under these circumstances generalizations lose validity and it becomes difficult to define what could be called a characteristic evolutionary profile of farming, since more advanced and technologically higher organization forms of the productive process coexist with traditional forms that are at varying degrees of evolution. The disparate nature of agricultural development explains why modernization occurs in a segmented way and why traditional techniques coexist with modern techniques within the same context. This disparate nature, in turn, justifies the impossibility of classifying producers into neatly defined categories. In this sense, the only generalization possible consists of grouping agents beginning from some characteristic elements.

The formation of entrepreneurial structures in Latin American agriculture results from the combination of various economic, sociopolitical and ecological factors which condition the constitution of a broad and heterogeneous gamut of entrepreneurial-type production units. The decisive factor, is, doubtless, the trend towards intensification of the use of productive resources through a more-than-proportional increase of capital vis-a-vis other productive factors.<sup>1</sup> However, one should not forget the important role played by various ecosystems in the conformation and destination of productive units.

This study begins first of all with a theoretical exposition and a review of the transformation process of traditional production structures (hacienda, plantation and ranch), and secondly, attempts to define which variables affect the transformation of those structures and in what way they condition the growing capitalization process of production units.

Thirdly, it examines the elements on which the differentiation process within the entrepreneurial segment essentially

depends: quality of natural resources, productive factors of land and capital, management capacity, and the capacity to incorporate technical innovations. This section ends with a synthesis of the various typologies of agricultural entrepreneurs proposed by some authors who have dealt with the matter.

Lastly, a grouping is made of agricultural enterprises that currently exist, using as a basic differentiation criterion, the level of capital and the degree of incorporation of technology.

## Chapter I

### HISTORICAL BACKGROUND OF ENTREPRENEURIAL FORMATIONS IN LATIN AMERICAN AGRICULTURE

#### A. GENERAL ASPECTS

Historically, the productive process in Latin American agriculture has been organized according to three forms (the hacienda, the plantation and the ranch), which are clearly distinguished despite the existence of intermediate forms between them (Morner:1975). These forms predominated until well into the twentieth century and constitute the structural basis whence arose the greater part of current agricultural enterprises.

The differences in organization of the productive process of these three formations are multiple, but it is possible to group them into two categories: one relating to agents the other to relations between productive factors.

With regard to agents, the essential distinctive trait is the greater or lesser entrepreneurial vocation and its greater or lesser potential, measured in terms of economic objectives pursued, i.e., of the way in which maximum benefits that the possession of a good or of a set of goods can generate are conceived, and measured also in terms of the way in which the labour factor is incorporated into the production process, and in particular, the way in which it is remunerated.

With regard to factors, what is distinctive here is the relation between productive factors which sustain each type of unit and, therefore, which encourage or limit the expansion of these units in terms of productive enterprises. The importance of this analysis is linked to the possibility of determining the domestic logic according to which the productive process is organized in each case and the possibility of inferring from there the form and degree of historic relation of these formations with the modern enterprise which we know today.

## B. CHARACTERIZATION OF INITIAL PRODUCTIVE FORMS

### 1. The plantation

The plantation arose from the conception of productive enclave, and was a mercantilist-type creation of the metropolises which dominated international commerce in the past century (Benjamin:1985). The main advantages which the region offered for the installation of plantations were the existence of abundant natural resources and qualitatively distinct ecosystems from those existing in the old continent, to which was added the possibility of combining these natural resources with a low-cost labour force.

The introduction of the plantation system meant the entry of capital into agriculture and, with this, the germ of the capitalist production system, such as is manifested in the unprecedented levels of production and productivity attained by its characteristic crops (sugar, cocoa, cotton and bananas), with the introduction of this new productive mode (Samaniego:1984).

Although this incorporation of capital and technology and the corresponding productive increases are due to a set of reasons, its basic condition lies in the fact that production decisions are significantly separate from local consumer needs. In effect, the plantation is essentially oriented to the external market, and from there, to a certain extent, its other characteristics derive, namely, relative capital-intensiveness, taking up large tracts of land, preferential employment of remunerated labour, technological innovation, and the search for maximum economic benefits, i.e., profit.

As the plantation specializes in long or permanent cycle crops which demand larger volumes of capital than annual crops or natural grasslands characteristic of other traditional production, the temporal horizon in which it is recorded is generally the medium or long term.

From a geographical point of view, the plantation was located in very defined spaces or regions. In effect, it is basically found in coastal tropical zones. There are various reasons which explain this location. First of all, crops typical to plantations, which were difficult to grow in the old world, required, on the contrary, agro-ecological conditions which occurred precisely in tropical zones. Secondly, since production areas had to have relatively rapid road access to production shipment points, plantations generally occupied low coastal areas, as in effect occurred in Peru, Ecuador, Colombia, Brazil, Venezuela and Central America. Thirdly, given the need for higher rates of return of production factors, especially because of high investment and transportation cost levels, the plantation

required ecosystems of great productive potential in order to obtain maximum yields from the spatial economics peculiar to it.

On the other hand, one of the basic changes introduced by the plantation, and of great importance for understanding the modernization of agriculture, was the instituting of wage relations in agriculture, characteristic of the capitalist system, i.e., the passing of labour from slavery to wage-earning.

The elements we have very generally outlined here, and which become progressively consolidated in the twentieth century, allow one to state that the plantation is a form which, from its very beginnings, contained the basic elements of what today is a modern capitalist undertaking, and that its evolution - more than its transformation - in this direction is particularly due to the adjustments required by the performance of markets, of new technologies and of specific policies adopted by each particular country.

## 2. The hacienda

Unlike the plantation, the hacienda was a purely colonial creation. In effect, the haciendas originated in land allotments made by the crown to conquistadors, and gradually evolved until they became consolidated as productive units as such, towards the end of the nineteenth and into the twentieth century. It otherwise involved an essentially non-capitalist or only partially capitalist way of organization. The domestic logic of haciendal functioning presented two complementary phases: one of relations between the exploitation unit and the rest of the economy and the other of relations within the hacienda itself (Carbonetto:1981).

In schematic terms, this system functioned in the following manner: output was divided into parts, one of which was destined for reproduction of the means of production and labour within the hacienda, while the other was destined for sale in the marketplace and its transformation into money. One part of this money returned to the productive process through the purchase of production means that were non-reproduceable within the hacienda, and the rest was appropriated by the landowner as income from the land. The objective of the landowner was precisely to obtain the maximum income possible.

The essential mechanism for expanding income was the concentration of land and labour. This explains why there was a trend precisely towards concentration of land in the hacienda. In practical terms, this land-concentrating characteristic resulted from three interrelated motives (Florescano:1975): the combination of land and labour allowed for a) an increase of productive surplus and therefore income; b) a reduction in the number of land-owning peasants, thus increasing the supply of labour; and c) a reduction of eventual competition in the restricted output



markets in which the hacienda operated, since there was no true land market.

The functional axis of the hacienda was the land/labour ratio. In this sense it was not very capital-intensive, and was oriented towards a reduced, generally domestic and even local market; it occupied large tracts of land, but did not necessarily use all of it; the labour ratio was based on the remuneration of labour through giving the workers usufruct of part of the land; technologically it was traditional and its purpose was, from the landowner's point of view, to reproduce rural property income; in addition it constituted a certain avenue of access to political power. It is important to bear in mind that in the era when haciendas were prevalent, markets as we know them did not exist, so that the control exerted by the landowning class on land made it practically impossible for other social groups to have access to it. On the other hand, intrasectoral labour mobility was minimal, since in reality, one only had access to work through one sole hacienda. Control over these two basic factors was, consequently, the mechanism that made it possible, and at the same time guaranteed, the obtention of landowning income.

The spatial location of the hacienda also arose from its productive characteristics. Given that it did not require large volumes of capital and that the remuneration of labour did not constitute a monetary cost, the hacienda was able to occupy ecosystems of lower environmental quality than those used by the plantation. On the other hand, the autarchy it enjoyed did not demand that it be connected to the rest of the system, nor, therefore, that it have the relevant road infrastructure. Thus, the haciendas were generally located in high and relatively isolated areas, as for example, the Peruvian and Ecuadorian sierra, Bolivia, the interior of Colombia and Brazil, etc.

For these same reasons, the hacienda was essentially geared to producing direct consumption foodstuffs, accompanied in some cases by basic agro-industrial processing, as for example, that required by grains and vegetables.

The demographic conditions under which the hacienda developed were also distinctive. Unlike the plantation, the hacienda was unable to mobilize large human contingents and needed a captive market for realizing its output.

In synthesis, the hacienda constituted a non-capitalist form of organization of production, which for that very reason had to pass through a profound transformation prior to becoming a modern undertaking.<sup>2</sup>

The hacienda operated in accordance with this logic up until well into the twentieth century. However, the world crisis which

occurred towards 1930 and the redefining of the power structure and of the attendant model of growth, began to call into question the hacienda, as a stable and operational institution. The dynamics of other sectors of the economy and of the system in general pushed the traditional hacienda into modifying its organizational parameters. From then onwards, and in a sustained way, the hacienda begins a transformation process - often forced - which gives rise to basic conditions which allow it to take on elements of modernism, and which are, essentially, the growing incorporation of capital and of technology, integration into markets, the trend towards wage-earning labour and generalized monetization. The hacienda thus embarks on a path of ever increasing openness to the national subsystem, at a time when the latter is also becoming increasingly independent of the external system. In the long run this dynamics turned out to be incompatible with the relative autarchy characteristic of the hacienda, and with the power structure which permitted its existence.

The major social changes which thus begin to occur also make their effects felt at a microeconomic level, in the sense that income, the classical expression of hacienda earnings, now becomes increasingly inadequate for dealing with the growing alternative cost, which requires that the productive process be organized under a capitalist scheme. The progressive substitution of the concept of income for that of economic profit at the same time marks the period in which capitalist relations go on to prevail as general marshalls of the production system.

So it is that slowly but surely, and letting itself be infiltrated by elements of modernism, the hacienda began its process of transformation. This was in essence, the beginning of the death throes of the hacienda system,<sup>3</sup> an agony which at the same time made possible the increase of capitalist-type income, which thus turned into a kind of retribution or cost of that transformation.

The process which we have outlined, was accompanied by a reduction in the labour of tenant farmers, of farm workers paid in cash and partly by use of a piece of land and of other forms typical of hacienda work, and an increase in wage-earning labour. Hacienda-type labour subsequently ended up diluted, ceasing to be the representatives of the general model of farming, as a result of the agrarian reform processes of the sixties.

### 3. The ranch

The ranch is the third classical formation of Latin American agriculture. As in the case of the hacienda, its origins go back to colonial times and are related to a strategy of territorial occupation and consolidation of border areas. Thus it is that it was preferentially located in more remote regions (hinterlands), such as the Colombian-Venezuelan plains, the Argentinian pampa, the Brazilian "sertao" etc., which in general are prairie ecosystems, practically uninhabited, and with productive systems that have scant levels of variability.

As may be deduced from these indications, the basic activity of the ranch was extensive cattle ranching. This productive activity confers its own distinctiveness onto the ranching mode of organization, since cattle here have the double connotation of capital and final goods, such that the basic factorial ratio here is the land/capital (cattle) ratio. On the other hand, given the high degree of autonomy of its productive system, the ranch could operate without major contributions by labour, which in turn allowed it to be located in low population density areas. The very nature of this type of activity demanded, in addition, large tracts of land.

The evolution of the ranch was intimately tied to the technological changes which occurred, first, in the production of leather and subsequently, of meat.<sup>4</sup> In effect, the process which the ranch followed may only be understood in light of the historic performance of cattle ranching. One has to bear in mind that, at first, production was primarily oriented towards the domestic market, and that the main activity was processing of leather and feed, with practically all meat going to waste. Meat production was only able to develop after the improvement of preservation techniques.

It was not until 1900 that cold-storage plants appeared on the scene, an invention that meant a revolutionary change in cattle ranching, and which gave it a dynamism unknown up until then, allowing it to access export markets and promoting countless innovations in ranching, such as new breeds, new handling systems, upgrading of grasslands, etc. All of this in turn presupposed that the capital component of ranches would be substantially raised, which was the course taken by modern capitalist ranching.

The definitions of plantation, hacienda and ranch which we have presented certainly refer to what we could call the chemically pure conception of each of those forms, which in actual fact do not occur precisely as such. In fact, we are faced with combinations of various degrees of these forms, with additional shades provided by the particular conditions in which they developed.

The following scheme synthesizes the basic characteristics of each formation (see scheme 1).

Scheme 1

	Plantation	Hacienda	Ranch
Basic factorial capital	Labour/capital	Land/labour	Land/ratio (cattle)
Market to which it is oriented	External	Domestic/ local	Domestic/ external
Objective	Profit	Income	Income
Type of production	Long-cycle crops	Short-cycle crops	Cattle-ranching
Remuneration of labour	Monetary	Non-monetary	Both
Technological level	High	Intermediate	Low
Degree of monetization	High	Low	I n t e r - mediate
Level of intensification	High	Intermediate	Low

Source: Prepared by the author on the basis of various studies.

### C. HISTORICAL EVOLUTION AND AGRARIAN CHANGE

Although the forms into which the productive process was organized and its subsequent evolution were primarily the result of economic, demographic and ecological conditions of the region, they were also the reflection of social and cultural conditions. That is, they were also the consequence of the form in which what could be called the social conflict underlying each historical moment was channelled or resolved. Thus, for example, one could roughly affirm, that the plantation partially resolved (or rather inhibited) social conflict, reducing labour to one more produc-

tion factor, annulling its other social expressions (e.g. taking away from it all participation in productive process management) through the establishment of wage-earning relations. For its part, the hacienda dealt with the conflict by establishing paternalistic relations with workers, while the ranch, thanks to its particular socio-demographic context, developed in an environment which was relatively free of this type of conflict. However, no matter how inhibited or attenuated the conflicts may have been, there was never any hesitation to use even violent coercion in order to stabilize the system when these mechanisms were inoperant. Therefore, it becomes evident that the agrarian issue has a political-historical component which must be reviewed and be added to the purely economic vision which seems to prevail today.

There is quite widespread consensus among the various authors on the point that, approximately, up until the decade of 1890, accumulation was generally based on agricultural activity, a particularly visible fact in tropical agriculture centered on the plantation and on ranching, for example, in Argentina and Uruguay, and which occurs to a lesser extent or in complementary fashion in other agricultural activities in temperate climatic zones, as, for example, in Chile, parts of Bolivia and Peru.

The prevalence of agricultural activity practically began during colonial times, and had become consolidated over time until, towards the early part of this century, a social structure was formed in which landowners, constituting veritable oligarchies, retained power in hegemonic fashion. This monopoly of power came about not only through the control of property and co-opting of the state and bureaucratic-military apparatus, but also by the prevailing segmentation of society or, put another way, the scarce integration of national systems. In effect, the former allowed the landowner to become of his own accord, not only a direct source of local power, but also that this local power, exercised by the landowner, gained new significance in the overall power structure.

The existence of this political scenario was decisive for the viability of the hacienda and the ranch, which could hardly have succeeded in subsisting as pillars of the economic system in the absence of this social or political context. The same does not apply in the case of the plantation: the domestic power structure was indeed vital to it, but, given the fact that a large part of its production was realized in the external market, coherence with destination countries was more decisive for it. Enjoying a degree of independence vis-a-vis the social structure of the country, greater than that of the hacienda and the ranch, the plantation could be content with meeting some requirements linked to the labour market and to marketing circuits and some guarantees regarding medium-term investment.

Around 1900, considerable erosion was observed in accumulation patterns operant up until that time, and in some countries the accumulation axis shifted to new areas of activity. This change has various causes, but, in general it arises from the combination of two phenomena: on the one hand, the fact that the industrial revolution extended to all European countries, radically transforming the organization of the production process. This fact translated, in turn, into a profound modification of external demand of those countries and of the type and magnitude of their investments in our region. On the other hand, the second phenomenon consists of major social changes occurring in the region, essentially defined by the appearance of new social agents and which are manifested in the form of acute power struggles, in attempts to consolidate national states and in the multitude of civil wars, border wars and regional clashes deriving thence (Gonzalez et al: 1977). The interaction of these two phenomena marked a time of major breakdowns, incoherencies and disjointedness, whose effects deeply affected the subsequent development of the region.

As we already indicated, the change in accumulation patterns in some cases meant that the economy's axis in countries of the region was displaced to other productive sectors, while in other cases the change consisted of an accentuation of the already central role played by a given sector in the national economic system.

In Chile, for example, displacement of the accumulation axis from the agricultural sector to mining was confirmed, with wheat being replaced by natural sodium nitrate as a greater income-generating product (Crispi:1984). The War of the Pacific (1879) occurs precisely within this setting.<sup>5</sup> In Peru, meanwhile, the exporting agro-mining axis was consolidated (Samaniego:1984). On the other hand, in Ecuador, and generally in countries with a tropical agricultural base, the role of the plantation as an axis of accumulation and insertion of the country into world economy, deepened (Chiriboga:1984). In Bolivia, mining consolidated its position, and at the same time, some agricultural activities were shored up, among them cotton (Dandler:1984). In Argentina and Uruguay the role of cattle-ranching as a basis for the pattern of accumulation was accentuated, as a consequence of an important capitalization process and of interrelationships due to the industrialization of that activity (Pucciarelli:1978).

This period, which began towards 1900, culminated in 1930 with the Great Depression. Put in very schematic terms, its basic traits were the loss of position of the landowning oligarchy, and the economic and political rise of the various bourgeoisie factions (commercial, financial and industrial) especially the urban one. In addition, all of this was involved in the framework of transition towards a capitalist system in which the agrarian economy and regional economy as a whole was bent.

From the point of view of the productive unit, the period is characterized by the fact that traditional organization begins to lose dynamism, incipient territorial integration begins the task of breaking up spatial monopolies, without this meaning that the economies, limited to a reduced ambit, cease to be important. The new conditions did not pose great contradictions to the plantation, while the ranch experienced a productive jump which allowed it to raise its levels of return. The same did not occur with the hacienda, which started to show signs of operational disjointedness and imminent breakdown. The land-owning class continued to be in force, basically as a result of its links to power and to the reinvestment of its productive surplus into non-agricultural activities, but not precisely because it knew how to adapt to the new conditions; its incapacity to evolve quickly towards an entrepreneurial structure explains why the state had to subsequently intervene in the modernization of agriculture.

From the Great Depression onward, three basic changes occurred: first, a sectoral restructuring according to which industry begins to profile itself as the marshalling axis of the system, but as yet without becoming the basic sector of accumulation,<sup>6</sup> which continues to be linked to the income-oriented exploitation of natural resources; second, an expansion of domestic aggregate demand as a product of important demographic growth (Gonzalez et al:1977) and third, the strengthening of state control over society as a whole. These elements left their mark on the development strategy which began to be implemented from then onward.

After the Great Depression, and heightened by the Second World War, there occurred the phase of development known as dependent capitalism. The main idea underlying this period was that of constructing an industrial-urban society. However, the new stage developed within the bosom of a society, strongly marked by the persistence of traditional structures (ECLAC:-1986a), in particular, in those economic and cultural aspects that are most deeply rooted in Latin American society and which are manifested even more acutely within the agricultural sector.

Three elements characterized post-war agricultural development in the region (Barraclough & Domike:1975):

- soaring population growth;
- rapid technological progress which affected the entire agricultural production system, creating new opportunities for given agricultural products and making others obsolete, altering relative prices and causing significant economic interrelations;
- profound changes in social values and in the plans and expectations of Latin American society.

A new element which will be decisive for the process of entrepreneurial differentiation, will be added later to this new context, namely, the capacity of various productive structures of linking up in a new way with urban-industrial centres.<sup>7</sup>

Going beyond its economic achievements and failures, the fact that this model of growth did not succeed in becoming consolidated was determined, to a great extent, by the impossibility of constructing a coherent social articulation. In effect, the situation of structural heterogeneity and socioeconomic exclusions which arose from this process is well known.

#### D. MAIN OBSTACLES TO AGRICULTURAL MODERNIZATION

The prevailing agrarian structure became increasingly less compatible with general economic conditions which were fast being imposed in the region. From the economic point of view, which is the one we favour in this study, a basic element of incompatibility was the high concentration of land ownership (see table 1) which existed in Latin America, with the cases of Chile and Peru being particularly prominent in this sense; in the remainder of countries one observes important regional differences in the degree of concentration, which reaches its maximum levels, for example, in Northeastern Argentina, the Brazilian coast, and the trans-Andean valleys of Colombia (Barraclough & Collarte:1972).

The high concentration of landed property had all kinds of repercussions: we shall deal here with those that are essentially economic-productive. The first thing one observes upon reviewing relevant information is the difference between property size and size of undertaking, a difference which is characteristic of the seignorial concentration phenomenon. In essence, it is a matter of the extension of a property not bearing any relation with the productive needs of a farming system but rather, with a matter of prestige and a structure of social domination (García:1967), a fact which was to translate, in the long run, into a problem of economic productivity of the land (see table 2).

Inequality in land tenure was in turn expressed in a correlative income distribution, such as information on Chile shows, for example (see table 3). This income distribution determined that investment levels in agriculture be absolutely inadequate in terms of the national needs of modernization and technification of agriculture (see tables 4 and 5).

In effect, in Chile's case, N. Kaldor (Barraclough & Collarte:1972) affirms that "if the proportion of consumption in gross income arising from property was reduced to the proportion registered in the United Nations - 30% - personal consumption of capitalists would be reduced from 21.1% to 10.3% in terms of nat-



ional resources. Resources thus freed would be more than sufficient to double the rate of gross investment in fixed capital and inventories, which is to say, in accordance with official estimates, that the rate of net investment would increase from 2% to 14% of gross national income".

In Uruguay (García:1967), on the other hand, it was discovered that technological investment in agriculture was very inadequate: thus, for example, resources invested in pasturelands did not even account for 2% of total investments made, the greater part of which was otherwise destined to machinery and farm equipment and not to cattle-ranching equipment. A similar phenomenon was observed in Argentinian pampa agriculture (Giberti:1975). In synthesis the performance of dominant groups in agriculture and the implicit correlative productive structure, determined a profile of use of the various resources that was inefficient and nonfunctional for the requirements of the prevailing urban-industrial model.

#### E. DISPLACEMENT OF THE AGRICULTURAL SECTOR

Perhaps the most characteristic fact of the strategy of industrialization and of the new development model was the main role which the state went on to play. In this period, the state succeeded in consolidating itself as the main source of power, becoming, at the same time, the locus where the various agents and social groups made their interests felt. From both a political and economic point of view, the state was now the conductor of the new development process. Under these circumstances and in contradiction with the landholding oligarchy, which was increasingly less economically powerful, the industrial and financial bourgeoisie, thanks to the influence they wielded on the state, attempted to establish a set of prices and regulations, which mobilized capital towards industrial production (Crispi:1984). For its part, the state gradually took on directly productive tasks, thus turning into an important agent in surplus distribution. State action sparked a radical change in the region's agrarian structure, laying the groundwork for the entrepreneurial transformation of agriculture.

As the industrialization process progressed there was a decreasing of agriculture's participation in the generation of domestic product of the region, where already in 1960 it was exceeded by industrial and tertiary sectors (ECLAC:1986b).

Table 1

NUMBER AND RELATIVE AREA OF FARMING  
BY GROUP SIZE (around 1960)

(Percentage of each group size  
over the country's total )

Countries	Sub- familial a/	Familial b/	Medium multi- familial c/	Large multi- familial d/	Total
<u>Argentina</u>					
Number of farms	43.2	48.7	7.3	0.8	100.0
Area farmed	3.4	44.7	15.0	36.9	100.0
<u>Brazil</u>					
Number of farms	22.5	39.1	33.7	4.7	100.0
Area farmed	0.5	6.0	34.0	59.5	100.0
<u>Chile</u>					
Number of farms	36.9	40.0	16.2	6.9	100.0
Area farmed	0.2	7.1	11.4	81.3	100.0
<u>Colombia</u>					
Number of farms	64.0	30.2	4.5	1.3	100.0
Area farmed	4.9	22.3	23.3	49.5	100.0
<u>Ecuador</u>					
Number of farms	89.9	8.0	1.7	0.4	100.0
Area farmed	16.6	19.0	19.3	45.1	100.0

Table 1 (conclusion)

Countries	Sub-familial a/	Familial b/	Medium multi-familial c/	Large multi-familial d/	Total
<u>Guatemala</u>					
Number of farms	88.4	9.5	2.0	0.1	100.0
Area farmed	14.3	13.4	31.5	40.8	100.0
<u>Peru</u>					
Number of farms	88.0	8.5	2.4	1.1	100.0
Area farmed	7.4	4.5	5.7	82.4	100.0

Source: Inter-American Committee for Agricultural Development (ICAD), Tenencia de la tierra y desarrollo socioeconómico del sector agrícola: Informe regional, (Land tenure and socio-economic development of the agricultural sector: Regional report) General Secretariat of the Organization of American States, Washington, D.C., 1966.

a/ Subfamilial: are farms whose lands are insufficient to both satisfy the basic needs of one family in accordance with local levels and to give year-round remunerated employment to that same family (possessor of a labour capacity of two man-years) at the technological level prevalent in the region.

b/ Familial: farms with areas sufficient for satisfying the basic needs of one family, that provide remunerated employment to a number fluctuating between 2 and 3.9 man-years, assuming that the greater part of the work is carried out by family members.

c/ Medium multifamilial: farms with sufficient land and requiring labour from a number ranging from 4 to 12 man-years.

d/ Large multifamilial: farms sufficiently large for providing work for over 12 persons.

Table 2

RELATIONS BETWEEN THE VALUE OF AGRICULTURAL PRODUCTION AND  
FARM AREA, CULTIVATED AREA AND AGRICULTURAL LABOUR,  
BY GROUP SIZE IN COUNTRIES SELECTED  
FOR THE IADC STUDY

Countries and group sizes	Percentage of total in each country		Index of output value corresponding to sub- familial farming equal to 100	
	Farm land	Value of output	By ha of farm land	By ha of cultivated land
<u>Argentina (1960)</u>				
Subfamilial	3	12	100	100
Familial	46	47	30	50
Medium				
multifamilial	15	26	50	62
Large multi- familial	36	15	12	49
<u>Total</u>	<u>100</u>	<u>100</u>	<u>30</u>	<u>57</u>
<u>Brazil (1950)</u>				
Subfamilial	0	3	100	100
Familial	6	18	59	80
Medium				
multifamilial	34	43	24	53
Large multi- familial	60	36	11	42
<u>Total</u>	<u>100</u>	<u>100</u>	<u>19</u>	<u>52</u>
<u>Colombia (1960)</u>				
Subfamilial	5	21	100	100
Familial	25	45	48	90
Medium				
multifamilial	25	19	19	84
Large multi- familial	45	15	9	80
<u>Total</u>	<u>100</u>	<u>100</u>	<u>26</u>	<u>90</u>

Table 2 (Continued)

Countries and group sizes	Percentage of total in each country		Index of output value corresponding to sub-familial farming equal to 100	
	Farm land	Value of output	By ha of farm land	By ha of cultivated land
<u>Chile (1955)</u>				
Subfamilial	0	4	100	100
Familial	8	16	14	32
Medium multifamilial	13	23	12	25
Large multifamilial	79	57	5	21
<u>Total</u>	<u>100</u>	<u>100</u>	<u>7</u>	<u>24</u>
<u>Ecuador (1954)</u>				
Subfamilial	20	26	100	100
Familial	19	33	85	110
Medium multifamilial	19	22	54	110
Large multifamilial	42	19	37	93
<u>Total</u>	<u>100</u>	<u>100</u>	<u>54</u>	<u>103</u>
<u>Guatemala (1950)</u>				
Subfamilial	15	30	100	100
Familial	13	13	56	80
Medium multifamilial	32	36	54	122
Large multifamilial	40	21	25	83
<u>Total</u>	<u>100</u>	<u>100</u>	<u>48</u>	<u>98</u>

Source: S. Barraclough & J. Collarte, El hombre y la tierra en América Latina, (Man and land in Latin America), Instituto de Capacitación e Investigación en Reforma Agraria (ICIRA), (Institute for Training and Research on Agrarian Reform), Santiago, Chile, University Press, 1972.

<sup>a</sup> Gross value of output in all countries, except Argentina, where estimates correspond to value added.

Table 3

## CHILE: SOCIAL DISTRIBUTION OF INCOME 1946 - 1954

Five year periods	Total income of labour		Total income of owners	
	Income indices 1940/44 = 100	Percentage share in agricultural income	Income indices 1940/44 = 100	Percentage share in agricultural income
1940-1944	100.0	38.3	100.0	61.7
1945-1949	99.4	33.8	121.9	66.2
1950-1954	94.7	28.4	148.1	71.6

Source: A. García, Reforma agraria y economía empresarial en América Latina, (Agrarian reform and entrepreneurial economy in Latin America). Santiago, Chile, University Press, 1967.

Table 4

## CHILE: INCOME AND EXPENDITURE OF TWENTY MAJOR PRODUCERS FROM THE CENTRAL VALLEY FOR 1960

(In 1960 escudos)

	Total	Average	Percentage
Gross personal income	897 300	45 865	100.0
Derived from agriculture	807 400	40 370	(90.2)
From other sources	89 900	4 495	(9.8)
Personal taxes	46 600	2 330	5.1
Disposable income	850 700	42 535	94.9
Consumption expenses	712 200	35 610	83.7
Personal investments	119 400	5 970	14.0
Personal savings	19 100	955	2.3

Source: M. Stenberg, "Chilean Land Tenure and Land Reform", Doctorate Thesis, University of Berkeley, California, 1962.

Table 5

URUGUAY: PERCENTAGE SHARE OF PASTURELANDS  
AND MACHINERY AND EQUIPMENT, IN THE COMPOSITION  
OF CAPITAL IN THE AGRICULTURAL SECTOR  
(1961 COST OF REPOSITION)

(In percentages)

	Pasturelands	Machinery and equipment	Cattle
1955	0.1	20.5	41.9
1958	0.2	19.7	42.3
1960	0.2	17.1	44.2
1964	0.3	16.9	44.4

Source: A. García, Reforma agraria y economía empresarial en América Latina, (Agrarian reform and entrepreneurial economy in Latin America). Santiago, Chile, University Press, 1967.

In the majority of countries of the region, manufacturing increasingly gained importance in the domestic market; however, external dynamism continued to be strongly based on natural resources. Here are some cases which illustrate these trends: in the forties, investment in Peru was basically directed towards mining, oil and fishing (all for export) and towards manufacturing production (for the domestic market) (Samaniego:1984). In Chile the main activity was copper mining. In Venezuela, oil rapidly displaced agriculture, which thus entered into a period of critical readaptation, while manufacturing showed itself as the only domestic sector able to productively reinvest part of oil revenues (Aranda:1979). In Brazil a substitution was also observed, namely replacement of the coffee-based economy by manufacturing, even in the export area (Barbosa:1986). In this country there were important transfers from the agricultural sector to the non-agricultural, both through the state and through diversification of investment by coffee growers themselves (Edward:1979).

However, the landowning sector's contribution to the industrialization process encouraged by the urban sectors, essentially occurred at the expense of direct agricultural workers. In effect, given that landowners did not transform themselves, except to a very scant extent, into modern agricultural entrepreneurs, the surplus required by the urban-industrial sector

arose from a deepening of inequalities existing in the countryside. In general, the hacienda cut back on the number of tenants and shifted part of the burden onto the small-farm sector and agricultural wage-earners. In this way relations between large estates and small farms acquire greater relevance, in that, in addition, there was an aggravation of the unequal relations existing between them. To this should be added the capacity of landholders to negotiate with hegemonic groups, through which they succeeded in obtaining not only an important degree of economic protection, but, essentially, the creation of a social bloc which permitted maintaining and relegitimizing that particular intra-sectoral liaison.

#### F. EVOLUTION TOWARDS ENTREPRENEURIAL FORMS

In the sixties there continued to be great disparity in development attained by the plantation, hacienda and ranch, from the point of view of the constitution of an entrepreneurial system in agriculture. In plantation agriculture the entrepreneurial structure was widely diffused and it was preferentially located in those sectors of greatest dynamism. However, as was already mentioned, this did not result from the model of domestic development but instead from the performance and needs of demanding countries. The accentuating of the plantation entrepreneurial structure was the outcome of both the action of capital and multinational corporations and from its own dynamics.

The hacienda, for its part, associated to the domestic model of development, was incapable of transforming itself, except in a few cases and for short term economic situation reasons, into a modern undertaking (Barsky Y Cosse:1981), because its existence was based on the general structure of economic and social relations prevailing in Latin American agriculture. This situation became intolerable towards the end of the period and was the economic and social cause of agrarian reform processes which occurred from then onward in the region, and which marked the beginning of the demise of the old agrarian order.

The cattle ranch, for its part, certainly had to respond to the needs of the domestic model of development and accumulation, but its viability definitely depended on the way in which it managed to insert itself into the external market, thanks basically to changes brought about by the introduction of cold-storage plants. Thus it is that already early in the century, the ranch was an efficient enterprise, which only in recent times gave signs of inactivity and backwardness vis-a-vis major technological advances (Sábato:1983) (Barbato:1983).



## Chapter II

### CAPITALIZATION OF AGRICULTURE: ENTREPRENEURIAL FORMS AND TRANSFORMATION STRATEGIES

#### A. GENERAL BACKGROUND

There appear to be three general elements which have had the greatest influence in the formation of the entrepreneurial system in Latin American agriculture. The first is state action, to which, precisely, are due the profound structural changes which permitted laying the groundwork for agricultural modernization (ECLAC:1979) and later, attaining the current entrepreneurial composition.

A second element was the multinationalization of agricultural activity. This occurred primarily in the plantation, but, thanks to its capacity of diffusion, its action later spread in other directions, particularly when these enterprises began to participate in agro-industrial production, in commercial and transportation systems and in the supplying of inputs, machinery and technology. Thus, the influence of multinational corporations was not limited to production but rather extended to all surrounding areas and to all those complementary processes in which it managed to act as a dynamic nucleus (Ortega:1986).

The third determinant element, made possible in part by the preceding, was the industrialization of agriculture, in the sense that the transformation of production operated by it imposed certain requirements which forced farms to evolve into other more capitalized and technified organizational forms.

#### 1. State action

Over and above conceptual considerations which surrounded the formulation of state policies, what is of interest here is to see the way in which state action went about giving a set profile to the organization of the agricultural productive process.

##### a) Agrarian reform

The first public policy element which we shall consider here is that of agrarian reform and, more specifically, its

effect on enterprise formation. Agrarian reforms directly or indirectly had the following five effects, basically associated with the problem of access to land and to the structure of tenure (see figure 1).

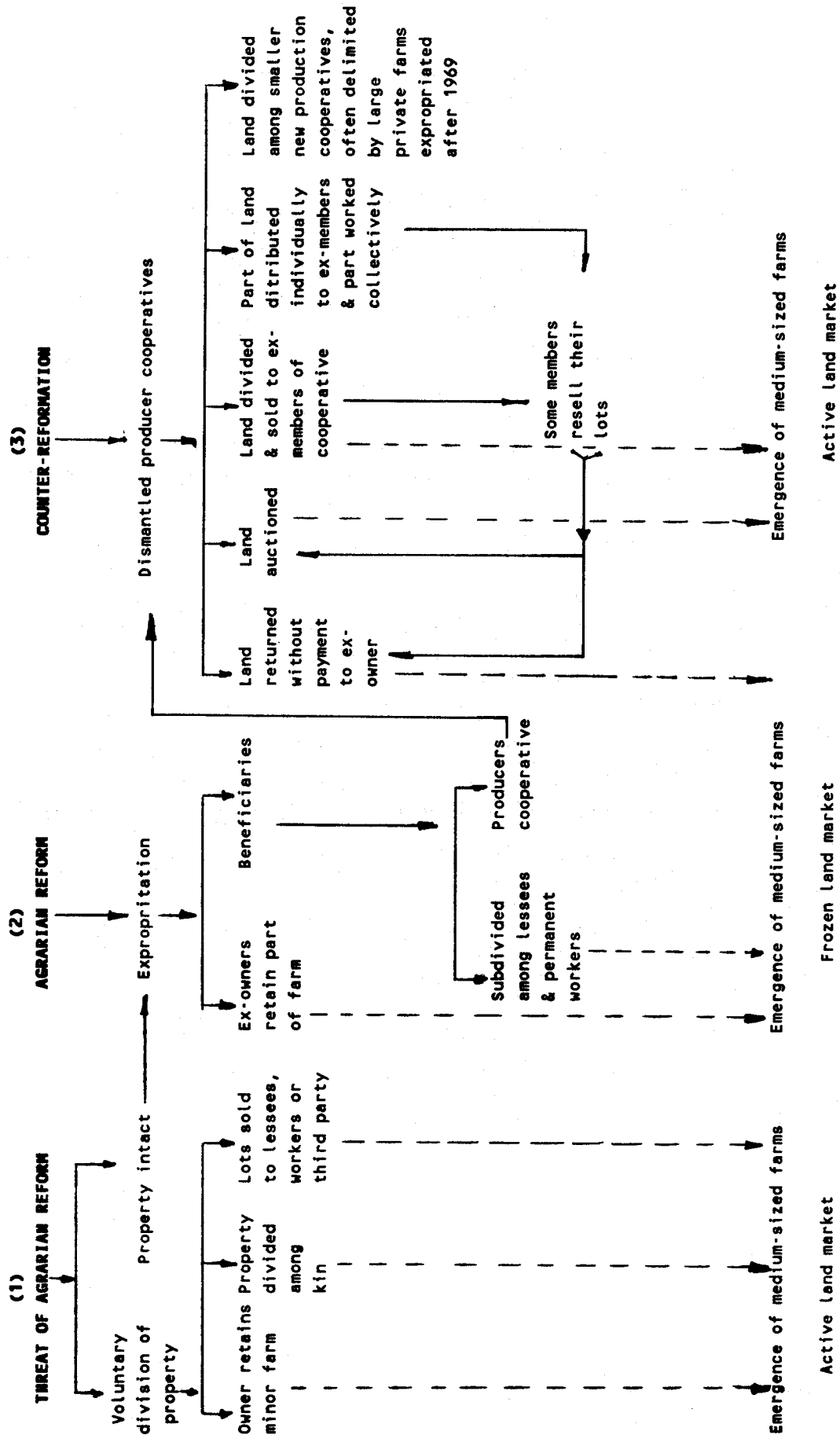
- Restructuring of property and modification of its size. Agrarian reforms tend to favour the creation of medium-sized properties, on the assumption that the incorporation of modernizing elements (primarily of capital) would be thus facilitated and, therefore, the transformation of the productive unit into an enterprise, while at the same time eliminating the territorial basis of the hacienda (ECLAC:-1978).
- The occupation of new lands for agriculture, particularly through the colonization of new areas or, lacking this, through the sale of state-owned lands.
- Transformation of tenants or peasants into entrepreneurs, whether individually, in association or collectively.
- Creation of an effective land market: this fact allowed, inter alia, entrepreneurs who were non-agricultural in origin to have access to land, and thus substituted land-owners and peasants, giving rise to a new social composition and introducing new elements into rural society.
- Lastly, to some extent agrarian reforms forced land owners themselves to convert their haciendas into enterprises as a way of retaining territorial property.

However, modernization of agriculture was not the exclusive outcome of state programmes. During the same period in which agrarian reforms began to be implemented, there arose a new type of agricultural entrepreneur who tried to encourage actions similar to those proposed by the state, and which were likewise oriented to overcoming economic-type obstacles that limited the modernization of agriculture. A study by López Cordovez (1982) describes the way in which a new type of agricultural entrepreneur was gradually consolidated at that time who precisely demanded basic conditions from government for undertaking important capitalization in the countryside, development of agrarian infrastructure and of communications, the organization of markets and other fundamental aspects of the modernization of agriculture.

It is generally estimated that the outcomes of agrarian reforms have been more social and political than economic and that they also show a series of debatable aspects. However, there is no doubt as to the profoundness of changes experienced by the regional agrarian scene as a result of this process.

Figure 1

STAGES IN THE DISINTEGRATION OF TRADITIONAL LARGE  
FARMS AS A MOTIVE FOR CHANGE



b) Public policies

Using the diagnosis of stagnation and disjointedness of agriculture which underlay industrialization efforts and the new objective of modernizing agriculture (Alvarez:1980) as a guide, governments conceived and implemented a series of measures intended to deal with agricultural issues in a wide variety of areas. Thus it was, for example, that the state began, a stage of direct incentives to agricultural production, which affected the relative price structure (pricing, credit, tariff, and exchange policies), while at the same time it undertook an enormous investment job, that was preferentially directed towards infrastructure of roads, irrigation, trading and processing, soil improvement and energy. To all this was added an important effort favouring technification of the sector.

Estimates of the International Food Policy Research Institute (IFPRI) indicate that approximately 10% of Latin American agricultural production growth recorded between 1950 and 1978 was due to the effects of various types of agricultural public investment (López Cordovez:1982). State action was primarily oriented towards farmers involved in capitalist-type production, and was above all assistance-oriented, in the sense that it favoured the learning of methods and forms of capitalist enterprise by farmers, speeding up the transition towards that mode of production.

State economic action was also geared towards normalizing those markets which showed marked flaws or, in many cases simply to creating new markets.<sup>8</sup>

State efforts could not but be observed by the incipient agricultural entrepreneurial class, which, just as another study by López Cordovez sums up, generally responded positively to them: "the economic performance of agricultural entrepreneurial economics is sensitive and selective to policy measures and instruments designed and adopted for the purpose of contributing to raising agricultural earning power or to avoiding its deterioration. The dynamism of agricultural entrepreneurs is evident; it is strongly manifested in the most developed agricultural areas and in the most profitable production. They take advantage of the propitious economic environment to carry out state-generated investments, and make rapid and efficient use of biochemical technology and proven mechanics and ready to be used" (López Cordovez:1985).

One should bear in mind, in addition, that the institutional development apparatus was also set up by the state, as, for example, efforts in the area of research institutes, experimental and agricultural training centres, show.

c) The state as entrepreneur

The third mode, according to which the state intervened in the formation of entrepreneurial structure was its role as direct economic agent within the agricultural sector. In general, the state did not participate directly in production, but instead limited itself to managing some sensitive points in the production-transformation system, such as storage centres and buyer powers (a step which is otherwise complementary with pricing policies implemented by the state itself) and to managing certain agro-industries of great importance (such as sugar mills in Venezuela or sugar beet processing in Chile). However, in some cases - especially in countries which embarked on agrarian reform - the state is frequently co-sponsor of the productive unit and in that sense it intervenes directly in production. Thus, in Peru, where autonomy of the cooperativized enterprise was so limited that a point was reached whereby one could state that the associative sector was dual in nature; i.e., cooperative-state in nature (Matos & Mejía:1984). Analogous situations were witnessed in all countries which started up an agrarian reform programme, to the extent that some authors reached the point of postulating the existence of a fate of state capitalism, in the sense that the reformed agriculture had gone on to constitute a total of major agricultural state enterprises (Tobón:undated).

2. Multinationalization of agriculture

The presence of multinational corporations in our region practically began with the setting up of productive enclaves in the past century. These companies have been important agents of change in the regional agrarian order. From the beginning of the century up to World War II they acted essentially through direct investments, as agricultural producers, primarily in plantation agriculture. A new stage occurred in the period between the postwar and the sixties, a period during which multinational corporations, without abandoning their productive labours, began to pay ever-increasing attention to commercial management, providing inputs and equipment to the rest of agriculture.

At a final stage, which begins towards 1970, productive activity definitively went on to occupy second place, and the multinationals' task was based on distribution of inputs, domestic and external trading and agricultural product processing (Arroyo et al:1980). The control which multinational companies have gained over these last three points confers on them enormous power over the agrarian system as a whole. It is important to highlight that from the sixties onward, multinational corporations managed an insertion which allowed them to affect the technological profile, productive patterns and consumption forms (Gutman & Van Kesteren:1979); they were therefore determinant in the enhancement of truly capitalist development of regional agriculture.

Given the specific evolution of the multinationalization of agricultural activity, there has been a trend towards consolidation of a medium-sized entrepreneurial class (Rama:1985) with varying degrees of efficiency, but with specific characteristics which differentiate it socially from other segments of the agricultural sector. To put it one way, they constitute a particular sphere of influence of multinational corporations. The degree of entrepreneurial efficiency which productive units can achieve from this segment, depends primarily on the greater or lesser possibilities offered by the activity to which they are dedicated and of their relation with multinational corporations.

### 3. Industrialization of agriculture

State action and the evolution of multinational corporations laid the groundwork for agricultural product processing to be transformed into an industrial activity per se.

The installation of agro-industry had very decided repercussions on practically all aspects of agricultural production. In effect, it promoted the introduction of new techniques, modernization of the production process, standardization of agricultural products, production of non-traditional crops (new crops), and also the introduction of improvements into marketing and distribution (López Cordovez:1982).

Agro-industrial expansion essentially emerged from the agricultural entrepreneurial sector, whose organizational and productive characteristics facilitated the liaising of their productions with agro-business activities (López Cordovez:1982). In other words, agro-industrial activity, by its organic-administrative conception and characteristics of the product which it input, favoured the fact of the latter being generated preferentially by entrepreneurial units, since over the medium term and under another organizational mode, cost structure and standardization requirements imposed on by agro-industrial productive insertion had not been viable.

Agro-industrial development also encouraged the transformation of other forms of agricultural management, as, for example, direct vertical integration and the quasi-integration of production, whether by the indirect mode of land control, in particular through investments in infrastructure in those areas offering the greatest differential incomes, or through contracts with subsidiaries (Arroyo:1979).

In synthesis, the combination of these three elements (namely: state action, multinationalization and industrialization of agriculture) constituted the dynamic nucleus and defined the mechanics through which traditional agriculture, based on large

estates, was transformed into agriculture as we know it today, which, irrespective of the disparity and heterogeneity of the degree of development it may have reached, cannot but constitute a modern, entrepreneurial type of agriculture.

### Chapter III

#### AGRO-ENTREPRENEURIAL DIFFERENTIATION: DETERMINANT ELEMENTS TYPOLOGIES

It will be remembered that in the section on historic background covered briefly in Chapter 1, we referred to the crisis which farming faced and the path taken by its transformation. In this chapter we wish to highlight the microeconomic and local characteristics which permit one to understand the different degrees of efficacy with which entrepreneurial units have been able to insert themselves into new productive schemes. The determinant elements behind this entrepreneurial differentiation bear relation with the quality of natural resources, productive factors (land and capital), the capacity of management and the incorporation of technology.

##### A. QUALITY OF NATURAL RESOURCES: ECOSYSTEMS AND REGIONS

A decisive element in the process of entrepreneurial differentiation is the environmental quality of ecosystems to which producers agree to. This factor determines the degree of artificial modification (Gastó:1981) which a natural system is capable of tolerating, i.e., the capital/land ratio which could be reached in this system under economically profitable conditions. This factor in turn conditions two aspects: potential productivity, i.e., the range or diversity of products which the ecosystem is capable of producing, given its natural characteristics, and that which in turn conditions the capacity of the enterprise to respond to changes in demand.

Associated to the preceding aspect is the spatial variable (which refers, for example, to the geographic location of the farm and to its greater or lesser proximity to urban centres), which loses relative importance as technology advances. Even so, it is a very stable factor. It is not accidental that the most advanced farms from the entrepreneurial point of view are located precisely in the highest quality ecosystems and in the most developed regions. That is to say, ceteris paribus, this variable will define the economic potential of a given productive unit, as can be seen in the different productive capacities of various



regions of each country. For example, the differences between the coast and other areas of Peru and Ecuador; between the east of Bolivia and the rest of the country; between the central valley and the northern and southern areas of Chile; between the northeastern and southeastern areas of Brazil, etc.

#### B. LAND AS A PRODUCTION FACTOR

During the long period over which traditional agriculture prevailed, land and property were decisive in production and dominance, to the extent that they determined both the generation as well as the appropriation of productive surpluses. However, the introduction of capitalist production relations - meant that capital - in its various forms - began to displace land in these functions. This change bears a fundamental relation with a reduction of the relative weight of land as an instrument of expansion, which fact is evidenced, for example, by the trend to equate property size with size of undertaking. This is what we learn, in effect, from the evolution of property size and from the fact that, in reality, agricultural enterprises preferentially arise in medium-sized properties (Maletta;1984), which in turn seems to indicate that land concentration, characteristic of haciendal farming, has ceased to function as a method of economic expansion. Certainly this does not prevent entrepreneurs from selectively concentrating the best lands, in order to progressively improve the environmental quality of the physical resources they retain.

#### C. THE ROLE OF CAPITAL

Capital is the most important factor in the development and modernization of agricultural undertakings; in fact, its action is felt in the most varied and decisive aspects of this process, in the forms, for example, of investment in infrastructure, means of production, technology, knowledge, etc.

On the other hand, it was and continues to be the most limited and costly factor, although its characteristics have varied with time. In the majority of countries the importance of capital in the production process progressively grew, in conjunction with the advancement of modernization (see table 6).

Table 6

AVERAGE ANNUAL GROWTH RATES OF AGRICULTURAL OUTPUT,  
OF TOTAL INPUTS, OF THE CONTRIBUTION OF TRADITIONAL  
INPUTS AND OF THE DIFFERENCE BETWEEN OUTPUT AND INPUTS  
BY DECADE, 1950 - 1980

Annual percentages

Output & sources of growth	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Mexico	Peru	Vene- zuela
<u>1950-1960</u>									
Output	1.60	0.00	4.40	1.80	3.30	a/	4.40	2.00	5.40
Total inputs	1.94	a/	1.91	4.33	1.00	a/	1.20	0.96	3.00
Land	0.26	a/	0.35	0.12	0.36	0.36	0.35	0.22	0.36
Labour	0.18	a/	1.01	0.36	0.35	1.19	0.85	0.61	0.80
Capital	1.50	0.97	0.55	3.85	0.29	a/	2.00	0.13	1.84
Difference bet- ween output & input	0.34	a/	2.49	-2.53	2.30	a/	3.20	1.04	2.40
<u>1960-1970</u>									
Output	2.30	1.60	4.40	2.10	3.50	5.70	3.80	3.20	5.30
Total inputs	1.81	a/	1.53	1.04	2.48	2.39	0.54	1.07	3.20
Land	0.12	a/	0.32	-0.13	0.16	0.19	0.40	0.11	0.28
Labour	0.19	0.50	0.70	-0.54	0.35	0.45	-0.63	0.93	0.95
Capital	1.50	1.49	0.51	1.71	1.97	1.75	0.77	0.03	1.97
Difference bet- ween output & input	0.49	a/	2.87	1.06	1.02	3.31	3.26	2.13	2.10
<u>1970-1980</u>									
Output	2.50	5.10	4.90	1.90	5.10	2.80	3.00	0.90	4.00
Total inputs	1.41	a/	a/	0.14	3.26	1.36	a/	1.49	3.00
Land	-0.05	0.43	0.23	0.00	0.41	0.00	0.19	0.00	0.08
Labour	-0.04	0.95	2.16	-0.78	-0.20	0.47	0.29	0.56	0.42
Capital	1.50	a/	a/	0.92	3.05	0.89	a/	0.93	0.52
Difference bet- ween output & input	1.09	a/	a/	1.76	1.84	1.44	a/	-0.59	1.00

Table 6 (conclusion)

Output & sources of growth	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Mexico	Perú	Vene- zuela
<u>1950-1980</u>									
Output	2.10	2.00	4.50	1.90	3.90	4.40	3.80	2.00	4.90
Total inputs	1.66	2.09	1.95	1.81	2.28	2.20	1.96	1.18	2.47
Land	0.11	0.33	0.30	0.00	0.31	0.18	0.31	0.11	0.24
Labour	0.05	0.53	1.12	-0.35	0.20	0.70	0.26	0.70	0.72
Capital	1.50	1.23	0.53	2.16	1.77	1.32	1.39	0.37	1.51
Difference bet- ween output & input	0.44	-0.09	2.55	0.09	1.62	2.20	1.84	0.82	2.43

Source: V. Elias, Government Expenditures on Agriculture and Agricultural Growth in Latin America. International Food Policies Research Institute (IFPRI), Research Report, No. 50, Washington D.C., 1985.

a/ No data available.

However, it should be borne in mind that for a considerable part of the period which spans from post-war up to the present, interest rates on agricultural credit were negative, so that positive results obtained by farmers cannot be attributed just like that to the efficient use of capital resources. Agricultural credit did not necessarily mean the transformation of traditional forms of farming, and in reality, often functioned as a mere subsidy which, precisely, allowed these forms to prolong their existence.

Thus, contrary to what could be expected, financial resources for the agricultural sector did not always function as an instrument for promoting modern capitalist enterprise. The mere disposition of capital is, doubtless, a necessary but not sufficient condition, for modernization. The latter requires other, much broader, conditions, that are political, social and cultural in nature. Modernization does not come about from the mechanical interplay of financial transfers, but rather results from a specific social, economic and political structuring of society.

Private and public financing structures were not always suited to the requirements of agricultural enterprises; for the rest, they could hardly have acted on banking structure existing in the region as a drive force for modernization if they themselves needed to be transformed and modernized (García:1982).

In a first stage, financing was preferentially directed towards semi-haciendal landowning agriculture and not towards the entrepreneurial. The former has the advantage of being organized into trade-union groups,<sup>9</sup> which gave it greater influence and negotiating power to obtain greater credits and better terms. On the other hand, land was the real guaranty (mortgage or collateral) par excellence,<sup>10</sup> so that, although in some cases the financial credit system acted as an instrument to promote entrepreneurial agriculture, contributing to the acquisition of inputs and equipment, more often than not, its credits in fact operated as a kind of subsidy to rural property structure.

In reality, however, the sources and forms of the formal and institutional financing system<sup>11</sup> have progressively made mechanisms available for channelling and formalizing credit<sup>12</sup> to the entrepreneur, in an attempt to convert credit capital into a more effective instrument of modernization.

#### D. MANAGEMENT CAPACITY

Very little study has been done on this variable, and only recently has it been included in analyses as an explicative element, without completely clarified its definition, nor the

form in which it is to be measured and incorporated into economic analysis. It is normally associated with a relatively long and undefined series of characteristics: the capacity of various producers to incorporate modernization elements in a profitable way; the relative degree to which change is rejected or accepted; the particular way of incorporating risk into the production process; the quantity and quality of information available in decision-making; administrative apparatus make-up of the farm in question. In recent times, mechanisms have also been included that are intended to motivate and encourage labour force participation; i.e., mechanisms that seek to modify attitudes vis-a-vis the production process and its conception, aspects in which the influence of cultural and education factors are very strong.

Management capacity will define the greater or lesser capacity of the productive unit to adapt to the new needs of the economic system, under favourable conditions, and this is what makes it such an important differential trait. Here are grouped those subjective elements which, to a great extent, explain why two production units which are similar in all other respects, nevertheless obtain such dissimilar results.

#### E. INCORPORATION OF TECHNICAL INNOVATIONS

This variable defines the mechanics or mode of incorporating technology into the modernization process. Although it is possible for enterprises to partially assume prevailing technological modes, only their comprehensive integration can assure truly modern development. In order for there to be continuity in the introduction of innovations, the entrepreneur must organize the production process in such a way as to render his operation profitable, given that the incorporation of modern technology inexorably increases costs (López Cordovez:1982). The incorporation of innovations is a differentiating element and refers to such aspects as: new productive management systems; equipment and capital goods, first with high energy content and now high informatic content; the introduction of new species; use of recent inventions and discoveries and so on.

Although all these elements influence the differentiation of agricultural production units (P. Gutman:1985), the factors which determine differentiation are, definitely, environmental quality of the ecosystems agreed to and management capacity of those in charge of the production unit. This is basically due to the fact that these two factors are the most constant over the medium term, and thus, the least susceptible to modification, unlike the greater dynamism and greater possibilities for rapid change of the others.

## F. SYNTHESIS OF TYPOLOGIES OF ENTREPRENEURIAL PRODUCTIVE UNITS

Various typologies have been developed on rural entrepreneurs; each author has selected different criteria for establishing the limits of each category.<sup>13</sup> In this chapter we wish to generally review these typologies.

One of the first typologies is that proposed by R. Baraona in 1963 for the Ecuadorian sierra haciendas. In it he classifies the haciendas according to their probable evolution, that is, according to the possibility of their being positively transformed or disintegrated (see table 7). Subsequently, in 1981, O. Barsky Y G. Cosse sought to verify the results of transformations foreseen by Baraona (see table 8). In the typology by Barsky and Cosse already there are two clearly distinguished categories of enterprises, one intensive the other extensive, which are in some way successors of the haciendal form, and a third category which arises from a faction of haciendas in dissolution.

In 1981 De Janvry proposed a new typology (see table 9). In it entrepreneurial categories are placed within a capitalist mode of production and correspond to types of enterprise classified as capitalist, commercial and family-run farms. It is interesting to note the correspondence existing between extensive and intensive farms proposed by O. Braski and the capitalist and commercial ones of De Janvry, as well as that which arises between the emergent peasant group of the first with the family-run farms of the latter.

On the other hand, the Food and Agriculture Organization of the United Nations (FAO) (1984), prepared a synthesis of typologies, which shows a set of incidence variables (see table 10). This typology assumes that all large properties are structured as capitalist enterprises (whether they be extensive or intensive), for which reason the dividing line between capitalist and non-capitalist productive units should be drawn at the height of medium-sized owners.

Table 7

## ECUADOR: "HACIENDA" TENURE SYSTEMS

Type	Patronal enterprise	Labour force		External access to hacienda resources
		Wage-earning	Paid in resources	
Under traditional (external dominance)	Practically inoperant due to passive-rentier attitude of landowner	Minimal excepting apparatus for tax and income collection		For herding small land holders or joint landowners' cattle, dominant activity in terms of production area
Disintegrating traditional (external dominance)	Inoperant due to disintegration of patronal authority generally motivated by internal pressure			
Common traditional (co-existence of enterprises)	Always existent, although with indifferent development associated with traditional agriculture or very incipient dairying.	Dominant		There are other enterprises resulting from pay in labour for access to resources by small landowners or other (part time workers paid in kind).
Modern emergent (patronal enterprise in the process of total resource control)	Central and dominant. Associated with fundamental changes in techniques and orientation of production.	Dominant. Generally in the process of disappearing by reduction or adjudication of parcels of land assigned to farm workers paid partly in cash and partly by use of a piece of land.		Only as source of seasonal work.

Source: R. Baraona, "Una tipología de haciendas en la sierra ecuatoriana", (A typology of Ecuadorian sierra haciendas), Reformas Agrarias en América Latina. Procesos y perspectivas, (Agrarian Reforms in Latin America. Processes and outlooks), O. Delgado ed., Mexico City, Economic Cultural Fund, 1965.

Table 8

## TYPES OF HACIENDAS AND PROCESSES IN THE ECUADORIAN SIERRA

1963		1978	
Barahona typology		Our classification	
Intensive		Intensive	
T R A D I T I O N A L M O D E R N	Maintenance of haciendas with capitalist relations ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S ----->
	(land owner's presence)		
	(capitalist relations)		
	(passage to stock-raising)		
E X T E N S I V E	Maintenance of haciendas with capitalist relations or dissolution	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N
	(co-existence of precarious -----> and wage-earning relations)		
	(mixed or agricultural production)		
C O M M O N	Maintenance of haciendas with capitalist relations or dissolution	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N
	(landowner presence)		
	(co-existence of precarious -----> and wage-earning relations)		
	(mixed or agricultural production)		
U N D E R	Maintenance of haciendas with capitalist relations or dissolution ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N ----->
	(absentee ownership)		
	(external dominance) ----->		
	(mixed or agricultural production)		
D I S I N T E G R A T I N G	Maintenance of haciendas with capitalist relations or dissolution ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N ----->	M A I N T E N A N C E O F H A C I E N D A S W I T H C A P I T A L I S T R E L A T I O N S O R D I S S O L U T I O N ----->
	(public haciendas)		
	(growing control in reality by workers with hacienda -----> resources - internal dominance)		
	(mixed farming)		

Source: O. Barsky, "Iniciativa terrateniente en la reestructuración de las relaciones sociales en la sierra ecuatoriana: 1959-64", (Land owners' initiatives in social relation restructuring in the Ecuadorian sierra: 1959-64), Revista Ciencias Sociales (Social Sciences Review) vol.II, No. 5. Quito, 1978.



Table 9

## JANVRY TYPOLOGY OF SOCIAL CLASSES AND AGRICULTURAL ENTERPRISES

Modes of production	Social classes	Types of agricultural enterprises	State control	Status in the labour market	Forms of payment for labour	Dynamic status as capitalism develops
Primitive community	<u>Cacique</u> Peasants	Subsistence farming				Disappearing
Semi-feudal	Traditional land-owning elite	Pre-capitalist large estates	Hegemonic as land-owning elite	Usufructuaries of employee labour	Payment in usufruct of land, in kind & money	
	Peasants and settled share-croppers	Subsistence farming	No	Semi-proletariat employees	Payment in usufruct of land, in kind & money	Disappearing
Capitalist	Capitalist land-owning elite	Capitalist farming	Hegemonic as land-owning elite	Employees	Payment in money	Emerging via Junker
	Farmers: rural bourgeoisie	Commercial farming	Shared with non-agrarian bourgeoisie	Employees	Payment in money	Emerging via peasants and mercantile means
	Rich peasants: small rural bourgeoisie	Family-run farms	No	Small employees or self-sufficient persons	Payment in money and exchange of labour	Emerging and becoming differentiated

Source: Food and Agriculture Organization of the United Nations (FAO), Report from the workshop on The rise of medium-sized production in Latin American agriculture, Rome, 1984, mimeo.

Table 10

## TYPOLOGY OF MEDIUM-SIZED PRODUCERS IN LATIN AMERICA

Access to land (1)	Access to land (2)	Country region studied	Agricultural activities	Type of product market	Proportion of factors		Volume & composition		Effect of government policy				Forecast Economic Stability	Sources	
					K <sub>1</sub> /T	K <sub>1</sub> /L	K <sub>2</sub> /T	K <sub>2</sub> /L	Wage-earn.	Lab. Temporary	Prices	Credit	Other		
Total labour										Permanent					
Old set- tlements	End of colon- ial period & into Repub- lican one (1800-1880)	Argentina, Prov. of B. Aires	Corn, Wheat Soye	Competi- tive export	High	High	High	High	Medium	High (skilled)	+	+	Research	0	Forni and Tort
					High	High	High	High	Medium	High	+			0	Archetti And Stolen
		Argentina, Prov. of Santa Fe	Cotton	Export	Med.	Med.	Med.	Med.	Low	(skilled)	+	+		0	
					Med.	Med.	Med.	Med.	High	High (unskilled)	-	-		-	Astori
		Uruguay	Milk, Fruit & vineyards Vegetables	Competitive import	Low	Low	Med.	Med.	High	High (unskilled)	-	-		-	
					Low	Low	Med.	Med.	High	High (unskilled)	-	-		-	
					High	High	High	High	Low	High	+	+		+	
					High	High	High	High	Low	High	+	+		+	Goodman
	Period of intense European migration (1880-1914)	Brazil Rio Grande do Sul	Soye Wheat	Competi- tive export Protected import	Low	Low	Low	Low	0.23	Low	+	+		0	Ferran.Crouch
					Med.	Low	Low	Low	0.25	Med.	+	+	- Tax	0	Condero et.al.,Crouch
		Dominican Republic	Tobacco	Competi- tive export tied to credit market	Med.	Med.	High	High	0.35	High	+	+	+Irrig.	-	Crouch
					Med.	Low	High	Med.	0.61	High	+	+	+Irrig. (Agrarian Reform)	-	Crouch



Table 10 (conclusion)

Access to land (1)	Access to land (2)	Country region studied	Agricultural activities	Type of product market	Proportion of factors					Volume & composition		Effect of government policy			Forecast Economic Stability	Sources	
					$K_1/T$	$K_1/L$	$K_2/T$	$K_2/L$	$K_2/T$	Wage-earn. Lab.	Temporary Total Labour Permanent	Prices	Credit	Other			
Recent disinte- gration of traditional large estates	Voluntary division	Cajamarca	Milk	Monopsonist imp. with price con- trol tied to credit market	Med.	Med.	Med.	Low	Low	Med.	Low (maj. female)	Low	+	+	+	Taylor	
					Med.	Low	Low	Low	Low	Med.	Med. (maj. female)	Low	+	+	+Agr. Inv.	+	Archetti
					Low	Low	Med.	Med.	Med.	Med.	Med.	Med.	+	+		+	Barsky
					Med.	Med.	High	Med.	Med.	High	High	High	+	+	+Exchange	+	Castillo y Lehmann, Crispi, Garcia E.
					Med.	Med.	Med.	Med.	Med.	High	High	High	+	+		+	CEDEP, Torres
Recent consoli- dation and moderni- zation of traditional small-farm system.	Internal moderni- zation	Ecuador Tungurahua	Apples	Import	Low	Low	Low	Low	Low	Low	Low	Med.			+	Barsky	
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					
Recent consoli- dation and moderni- zation of traditional small-farm system.	External moderni- zation	Brazil Agreste	Livestock	Export	Low	Low	Low	Low	Low	High	High	Low	+	+	+	Bicalho y Hoeffle	
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					
					Low	Low	Low	Low	Low	Low	Low	Low					

Source: Food and Agriculture Organization of the United Nations (FAO), Report from the Workshop on the rise of medium production in Latin American agriculture, Rome, 1964, mimeo.

Note:  $K_1$  = Fixed capital (equipment & construction), including livestock, orchards and vineyards.  $K_2$  = intermediate inputs. L = Labour. T = Land.

The incorporation of different variables and their inter-relationships, on the other hand, permits one to prepare more explicative typologies. Cattle-ranching, for example, appears with relatively low levels of capital. Short-cycle crops (corn, wheat, soya), on the other hand, have relatively high levels of capital. However, both sectors develop under the capitalist enterprise mode. What happens is that there are major differences between the degree of modernization of those enterprises, as also occurs within one crop; compare, for example, the degree of modernization of cotton crops in Argentina with that of Peru.

A second group of typologies is one resulting from case studies. These typologies, less general than the preceding, nevertheless permit one to approach the specific realities of countries or regions in a more concrete fashion.

In this sense, one of the most comprehensive typologies is that prepared in 1982 by A. Schejtman for the case of Mexico (ECLAC:1982) (see table 11). In this typology, entrepreneurial agriculture differs according to the quantum of work days contracted by each production unit; this allows one to distinguish three types of agricultural entrepreneurs, ranked according to size of enterprise. For their part, cattle-ranching entrepreneurs, also divided into three types according to size of enterprise, differ in amount of the value of cattle capital. What is significant about this typology, among other things, is that it shows the difficulty (or impossibility) of compatibilizing the different sectors into one category alone (short-term crops, permanent crops and stock-raising), and this, because the main element which characterizes productive units as capitalist entrepreneurial units is not necessarily the same for each sector, which in part clears up doubts arising from table 10 with regard to the relation of capital between stock-raising and short-cycle crops.

A second typology of this kind is that proposed by V. Morello in 1983 for the Chaco region in Argentina (see table 12). In this case, according to the criterion of economic reasoning, units which are capitalist entrepreneurial in nature would be the major extractive capitalist production, complementary capitalist production and the capitalist mercantile production; each category of actor-type is also associated in this case with a different sector.

We shall also cite a third typology, prepared by Crispi et al in 1980, which specifically deals with commercial agricultural undertakings in Chile (see table 13).

Table 11

TYPOLOGY FOR ANALYZING MEXICAN RURAL STRUCTURE  
ACCORDING TO SCHEJTMAN

Category	Definition Criteria	Classification variable	Category	Definition criteria	Classification variable
Peasants	Essentially family-based labour-force. Wage-earning relations, when they exist, have quantitatively little significance.	Work-day hired by wage less than 25	Small	Family-based labour force of some significance although under wage-earning one.	Wage-earning work-day greater than 500 but less than 1500.
Below subsistence	The productive potential of the unit is insufficient for feeding a family	Arable land less than 4.0 ha.	Medium	Family-based labour force of little significance. With previous category, corresponds approximately MFM of ICAD (4 to 12 men/year)	Wage-earning work-day greater than 1250 but less than 2500.
Subsistence	The productive potential exceeds that required for feeding, but is insufficient to generate a replacement fund.	Arable land greater than 4.0 ha but less than 8.0 ha.	Large	Family-based labour unimportant. Corresponds to MFL of ICAD (over 12 men/year).	Wage-earning work-day greater than 2500.
Seasonal	Unit capable of generating surplus over consumption requirements and equivalent to replacement fund and to certain reserves for contingencies.	Arable land greater than 8 ha but less than 12.0 ha.	Cattle-ranching enterprises	Predominantly cattle-ranchers with wage-earning labour over 25 annual work days.	Value of cattle production greater than 0.5 of value of total production.

Table 11 (conclusion)

Category	Definition Criteria	Classification variable	Category	Definition criteria	Classification variable
Those showing surplus	Unit has necessary potential for generating surplus over its basic reproduction needs.	Arable land greater than 12.0 ha.	Small	Scale considered small by zootechnicians and which can be attended by the producer and his family with a complement less than or equal to that of the family contribution complement.	Capital in cattle less than 50 young cattle or their equivalent.
Transitional farmers	Wage-earning labour force of some significance. At the limits they are slightly over family one.	Wage-earning work-day greater than 25, but less than 500.	Medium	Residual scale or that resulting from those previously & subsequently defined.	Capital in cattle greater than 50 but less than 300 young cattle or their equivalent.
Farming entrepreneurs	Predominant labour force if not exclusively wage-earning.	Wage-earning work-day greater than 500.	Large	Criterion considered by zootechnicians as generating units equivalent to a large agricultural enterprise in terms of productive potential.	Capital in cattle less than 300 young cattle or their equivalent.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), Economía campesina y agricultura empresarial: tipología de productores del agro mexicano. (Peasant economics and entrepreneurial agriculture: typology of Mexican agricultural producers), Mexico City, Siglo XXI ed., 1982.

a/ ICAD MFM = Multifamily medium of the Inter-American Committee for Agricultural Development.

b/ ICAD MFL = Multifamily large of the Inter-American Committee for Agricultural Development.

Table 12

## TYPE-ACTORS OF THE CHAQUEÑA REGION (NORTHEASTERN ARGENTINA)

Economic profile Activity	Major extractive capitalist production				Capitalist mercantile production			
	Logging	Extensive stock-raising	Extensive stock-raising	Wage-earning	Extensive stock-raising	Intensive cotton growing	Intensive cotton growing	Subsistence production
Labour	Wage-earning	Wage-earning	Wage-earning	Wage-earning	Family-based	Wage-earning and family-based	Family-based	Subsistence production
Capital	Medium	Medium	Medium	Medium	Scarce	Medium	Scarce	
Technology	Rudimentary	Intermediate	Rudimentary	Rudimentary	Rudimentary	Intermediate	Rudimentary	
Own infrastructure	Adequate	Adequate	Nil	Nil	Nil	Scarce	Nil	
Land tenure system	Ownership	Ownership	Occupant	Occupant	Occupant	Ownership	Occupant	
Commercialization	Absorbs surplus	Retains surplus	Losses surplus	Losses surplus	Losses surplus	Losses surplus	Losses surplus	
Accumulation capacity	High	Medium	Nil	Medium	Nil	Low	Nil	
Profit rate	High	Medium	Low	Medium	Low	Medium	Low	
Capacity to transfer environmental costs	Absolute	Relative	Nil	Relative	Nil	Relative	Nil	
Economic reasoning	Profit rate maximization	Profit rate maximization	Maintenance of family income	Maintenance of family income	Maintenance of family income	Profit rate maximization	Maintenance of family income	
Available social infrastructure	Scarce	Scarce	Nil	Scarce	Nil	Scarce	Scarce	



Table 12 (conclusion)

	Major extractive capitalist production	Complementary capitalist production	Subsistence production	Capitalist mercantile production	Subsistence mercantile production
<u>Environmental factors</u>					
Natural resources exploited	Forest	Deforested lands and natural grass- lands	Forested lands and scrub- lands	Farmlands	Farmlands
Natural productivity and resources stability	Medium	Medium	Low	High	High
Environmental impacts	Total destruc- tion of forests	Partial; loss of palatable species	Partial; loss of palatable species, scrub-invasion Difficult to reverse	Unimportant	Partial; loss of fertility
Reversibility of impacts	Partial and long term	Reversible			Reversible
<u>Conditioning and activating factors</u>					
Activating factors	External demand	Changes in interregional division of labour	Regional demand	National demand	National
Factors conditioning mode and handling	Speed of growth of demand and profitability rate	Accumulation of capital and regional demand	Low income and low productivity of land	Accumulation of capital and national demand	Small sized plots; low income

Source: Carlos A. Barrera, Análisis histórico ambiental, actores tipo y procesos ecológicos, avances en la interpretación ambiental del desarrollo agrícola de América Latina, (Environmental historical analysis, standard actors and ecological processes, advances in environmental interpretation of agricultural development in Latin America), ECLAC/UNEP, Santiago, Chile, 1985, LC/G.1347, United Nations publication, Sales No. S.85.II.G.4.

Table 13

CHILE: SCHEME OF DIFFERENTIATION OF COMMERCIAL FARMING ENTERPRISES ACCORDING TO REGIONAL AND FINANCIAL VARIABLES

Regional differentiation	Financial differentiation	
	With financial access	Without financial access
Areas suitable for export production	Export fruit company	Traditional farming enterprise of the Central Valley.
Areas unsuitable for export production	Stock raising enterprise	Farming enterprise producer of grains and basic foodstuffs from the south and marginal areas of the Central Valley and immediate north.

Source: J. Crispi et al. "Capitalismo y campesinado en el agro chileno", (Capitalism and the peasant class in Chilean agriculture), Estudios Rurales Latinoamericanos, (Rural Latin American Studies), Vol. 3, No. 2, Bogota, 1980.

In this case, criteria used by the authors for classifying the various enterprises were access to capital and the sector's position vis-à-vis the external market,<sup>14</sup> where seven types of entrepreneurial units with capitalist base resulted, as is shown in table 14.

It is clearly seen in this table that there are three general types of enterprises according to capital intensiveness or extensiveness. The first group is made up of capital-intensive enterprises, in this particular case, fruit companies and those linked to agro-industry; the second, characterized by the extensive use of capital, are made up of livestock-raising, grain and food-producing enterprises, and there is a third intermediate group made up of enterprises which find themselves in a transitional phase, on the verge on becoming enterprises of the first intensive group.

Together with this characterization, the above-cited authors (Crispi et al:1980) proposed a classification referring to the peasant segment and to its evolution, defining three types of producers:

- Type I: Traditional peasant production;
- Type II: Peasant producers tied to agro-industries;
- Type III: Specialized peasant producers.

Of these three types, only the last is purely entrepreneurial; the second is semi-entrepreneurial in nature since it has a high component of self-consumption. What is interesting about this typology is that it also demonstrates for the case of Chile the appearance of agricultural entrepreneurs who are truly peasant in origin.

An aspect which greatly draws the attention of this review is the heterogeneity observed within the entrepreneurial group. A fact which in part is related to the partial or segmented incorporation of various productivity elements, especially, technology. The inexistence, or at least the lack of availability of adequate technological systems for various agro-ecological conditions, and also the various scenarios which one could call socio-political, prevent the efficient resolution of equations raised by each issue of this heterogeneous reality. Thus are manifested the lacks implied by the unavailability of a creative and endogenous technological proposal or at least suitable criteria for dealing with the technological capitalization process. An outcome of this is that, selection of an indicator for defining modernity levels of one or other entrepreneurial unit determines whether the latter appears as capitalist or semi-capitalist, depending on the indicator selected, therefore, few are the enterprises which appear to be modern, if one takes into account the total of elements which define this characteristic.

Table 14

## CHILE: TYPES OF CAPITALIST BASE AGRICULTURAL ENTERPRISES

Type of enterprise	Domestic comparative advantages	Access to capital
Fruit-growing	+ + + <u>a/</u>	+ + +
Integrated into agro-industry	+ + +	+ + +
Traditional in transition	+ + +	+
Stock-raising (meat)	+ <u>c/</u>	+
Southern grain-growers	+	+
Foodstuff producer (Central Zone)	+	+
Dairying (Milk)	+	+ + <u>b/</u>

Source: Prepared by the author based on J. Crispi et al, "Capitalismo y campesinado en el agro chileno", (Capitalism and the peasant class in Chilean agriculture), Estudios Rurales Latinoamericanos, (Rural Latin American Studies), Vol. 3, No. 2, Bogota, 1980.

a/ + + + = high or good  
b/ + + = medium or fair  
c/ + = low or poor

Another factor that explains this situation is the incipient state of research on this sector, implying the inexistence of common, clear and relatively accurate methodological criteria for studying this issue. On the contrary, very general criteria are observed, with, therefore, little explanatory power, or, at the other extreme, a specific approach is observed that results from certain casuistics, and thus prevents comparison and extrapolation, which, however, does not detract from the rigourousness of research carried out, but rather highlights the incipient nature of this line of study.

## Chapter IV

## ENTREPRENEURIAL FORMS IN AGRICULTURE TODAY

As was made evident throughout this study, the entrepreneurial segment which has emerged in Latin American agriculture is far from presenting a homogenous profile. This segment has progressively developed onward from the transformation of the old agrarian order and promoter of a new order with capitalist bias. This transformation arises out of the need of the agricultural sector to adapt to demands imposed by the new scheme of development in which countries of the region found themselves caught up in this century and which is fundamentally defined by the growing predominance of the urban-industrial segment and state hegemony. Put very schematically, the transformation occurs through the incorporation of capital into the production system.

However, one of the most important elements within this process, and which has meant the frustrating of great expectations placed on change at the outset, is the fact that only a relatively small number of landowners embarked on the road to self-transformation, and that, on the contrary, the great majority put up great resistance to change. Instead of fighting for the creation of formal conditions in order for bases to be consolidated in a productive scheme founded on sustained growth of productivity and yields, the landowning oligarchy was bent on maintaining and heightening traditional social inequalities in agriculture. As a consequence of this attitude, a very sizeable part of the sectoral effort to generate surpluses required by the urban-industrial paradigm which began to be developed, fell to the sector of rural workers and peasants on small farms.<sup>15</sup>

However, this urge to prolong the traditional order occurs precisely within the framework of its own death throes, given that the economic system moves and is oriented in a capitalist direction, thanks primarily to state action, made possible in turn by the high participation of multinational companies in the various productive applications of agriculture. Within this general setting there emerge new tensions and conflicts, both among the various agents which face each other in the agricultural sector, as at a national level, between landowning groups and those other factions in power who advocate industrialist-type

modernization and which, in the long run, have ended up imposing their positions.

Thus it is that despite conservative efforts, the agricultural scene begins to turn around. The state implements a series of important measures: public investment, policies favouring the introduction of new goods, equipment and inputs, agrarian reform processes, etc. At the same time, modifications of the urban demand structure pressure even more for the productive restructuring of the agrarian sector.

These modifications as a whole in turn translated into a redefining of the concept of efficiency and a strengthening of the market as a form of negotiation and integration. Although this fact encouraged the self-transformation of landowners, to a certain extent, its maximum effect was in incorporating social and cultural groups into agricultural activity, that precisely were not landowners, who knew how to face the productive process with a new entrepreneurial spirit.

This is the general setting within which the entrepreneurial sector emerges as a relevant social category in the agricultural sector. Together with this general framework, however, there is a more particular framework which defines specific and differentiated forms adopted by the various entrepreneurial productive units, and which bears some relation, inter alia, with a mercantile type of insertion, the dynamics of the various production sectors, the size of the enterprise, and the concrete agro-ecosystem in which it operates.

In effect, there are various elements which contribute to differentiating and characterizing the various enterprises. From the point of view of productive resources, agricultural enterprises tend to develop in units whose size goes from medium to large, with a concentration of those that are most capitalized in the medium-size range. In terms of the spacial dimension, enterprise will tend to occupy the highest quality areas or productive potential, from the agronomic and economic point of view. For all intents and purposes this is a variable of decisive differentiation for agricultural enterprises, since the degree of profitability and stability which enterprises will reach through productive modernization will definitively depend on them.

It is also possible to make some distinctions relative to sectors or productions in which modernization is more dynamic.

Thus, for example, the greater degree of modernization, in terms of capitalist intensification, generally occurs in companies dedicated to growing new short-cycle crops, temperate climate permanent crops and some intensive forms of livestock-raising, e.g. poultry and pigs. In second place, there are per-

manent tropical crops and traditional short-cycle crops; third, there is ovine and bovine ranching and fourth and last, logging.

Bearing in mind these differentiation elements as a whole, it is possible to group agricultural enterprises according to their technological level and the level of capital in which they operate. Thus, there arise four groups of clearly differentiated enterprises.

Group 1: These are enterprises which operate at high technological levels and capital levels ranging from medium to high; they are tied to the external market or to high-income strata of the domestic market, and are frequently tied to very dynamic agro-industries, whether state-owned, private, national or multinational. These enterprises are, for example, producers of table grapes, apples, fruit trees and vegetables for export in Chile; bananas in the Union of Banana Exporting Countries (UBEC), soya in Brazil, Paraguay and Argentina, and hogs and poultry in Brazil. Within this group, although with less defined traits and with some different characteristics from the preceding, are found the sorghum, orange, onion and tomato-producing enterprises in Brazil.

Enterprises in this group can be placed in different size strata, according to the specific line of business they develop and their general capacity to take advantage of spatial economies, which is precisely one of the main characteristics of these units.

These enterprises tend to vertically integrate the production process, which explains their high level of capital and technology to a large part. From the administrative point of view, what is characteristic about these enterprises, especially the larger sized ones, is that they handle large volumes of both economic as well as agronomic information; on the other hand, the entrepreneurial unit is an entity that is clearly distinguished from its owners from the management point of view, being administered or advised by highly qualified technical groups.

The very assessment of these technical teams allows this group of producers to operate at highly advanced technical levels, which are further enriched by their relation with agro-industry to which they are linked or through direct contact with national and international centres which develop these technologies.

Group 2: This group is made up of medium technological level enterprises with medium or medium-high density of capital, preferentially concentrated in medium and large sized units, and with less-defined links to markets and agro-industries. Such is the case of sugar beets in Chile, sugar-cane in Venezuela, Peru and Brazil; wheat and corn in Argentina (province of Buenos



Aires); coffee in some Colombian regions and milk production in certain regions of Uruguay and Ecuador.

These entrepreneurial units have the same basic characteristics as those of the preceding group. The difference lies essentially in two aspects: one, that they are involved in lines of business that technically require relatively lower levels of capital than the preceding group; and two, that the markets or buying powers to which they are oriented are less dynamic than those of group 1.

Access to technology is to a large extent mediated by state action and programmes, and only to a lesser extent does it depend on the direct efforts of enterprises, which gives them a special dynamic and another matrix of incentives and initiatives.

Group 3: This group is made up of enterprises that operate at technologically medium to low levels and capital levels ranging from medium to medium-low. It involves enterprises that early in the game made the technical jump and which subsequently went about generally improving their innovation rate. They basically represent enterprises dedicated to ovine and bovine ranching in Argentina and Uruguay and some traditional short-term crop growers in the majority of countries.

In general, they operate on farms whose sizes range from medium to large and without intensive participation of capital, for which reason profit per unit of surface is relatively low.

Their technological levels are comparatively low, which has greatly reduced their dynamism and consequently, their capacity to compete in external markets, from where they have progressively been displaced by more efficient production in developed countries.

Group 4: Technological levels of this group of enterprises are very low as are its capital levels; its activity is almost totally extractive in nature, which is represented in the region primarily by logging enterprises.

Notes

1. This document is essentially based on the study of productive enterprises and not on those that are exclusively commercial or pertaining to transformation.
2. This is an artificial characterization of the Latin American hacienda and therefore does not convey the multiple shades that occur in reality; for example, the distinction between capitalized and non-capitalized haciendas (Kay:1982).
3. As was indicated in the case of the plantation, the tight correspondence between production and consumption is broken at this time, and decisions relative to one and the other are separated.
4. Giberti (1975) indicates that this fact is analogous to the current phenomenon, according to which lumber is more expensive than the tree from which it is hewn.
5. An attempt is not being made to insinuate a relation of causality between both phenomena, but rather to affirm the way in which historical phenomena go about occurring.
6. This contradicition will be maintained for quite a long period.
7. Bear in mind the high population and urbanization growth rates.
8. For further information on this point refer to L. López Cordovez (1982).
9. Such as, inter alia, the National Agricultural Society in Chile, the National Agrarian Society in Argentina, the Colombian Association of Farmers, the National Agrarian Society in Peru.
10. In fact, various studies show that there is a high correlation between concentration of land and that of credit.
11. Credit obtained informally, i.e., thanks to economic ties between hacienda owners and bankers and which forms part of practices established by large estate owners, will remain in force for a long time.
12. Some mechanisms in this sense are, for example, the existence of a previously evaluated investment project as a prerequisite for granting credit and payment against invoice.
13. For further information on this point see H. Maletta (1984) and P. Gutman (1985).

14. In Chile this concept is tied to that of static comparative advantages, which are greatly determined by the quality of natural resources.

15. This general view does not in any way belittle the considerable efforts made by organized producers to incorporate technology and progress, but this phenomenon is not the one which characterized the process of change.

## BIBLIOGRAPHY

- Alvarez, E. (1980), Políticas agrarias y estancamiento de la agricultura 1969-1977, (Agrarian policies and stagnation of agriculture 1969-1977), Instituto de Estudios Peruanos (IEP (Institute of Peruvian Studies), Industrial Gráfica Editorial.
- Aranda, S. (1979), La economía venezolana, (Venezuelan economy). third edition, Caracas, Siglo XXI.
- Arroyo, G. (1979) "Bases théoriques et méthodologiques d'un project", (Theoretical bases and methodologies of a project) Transnationales et Agriculture, (Multinationals and Agriculture) Centre for Research on Latin America and the Third World (CETRAL), No. 1, Series 1, Paris.
- Arroyo, G. et al (1980), "Empresas trasnacionales y agricultura en América Latina" (Multinational companies and agriculture in Latin America), Estudios del tercer mundo (Third World Studies), vol. 3, No.2. Mexico City.
- Baraona, R. (1965), "Una tipología de haciendas en la sierra ecuatoriana", (A typology of haciendas in the Ecuadorian sierra), Reformas agrarias en América Latina (Agrarian reforms in Latin America), O. Delgado (ed.) Mexico City, Economic Cultural Fund.
- Barbato, C. (1983) "El proceso de generación, difusión y adopción de tecnologías en la ganadería vacuna uruguaya" (The process of generating, diffusing and adopting technology in Uruguayan cattle ranching), Procesos sociales e innovación tecnológica en la agricultura de América Latina, (Social processes and technological innovation in Latin American agriculture), M. Piñeiro & E. Trejo (eds.), Inter-American Institute for Cooperation on Agriculture (IICA), San Jose, Texto Editorial.
- Barbosa, T. (1986), "Expansión del cultivo de la caña de azúcar y de la ganadería en el nordeste del Brasil. Políticas públicas y sus derivaciones económicas y sociales" (Expansion of sugar-cane cultivation and stock-raising in Northeastern Brazil. Public policies and their economic and social derivations) (LC/G.1425), ECLAC Studies and Reports series, No. 59, Santiago, Chile, United Nations Publication, Sales No. S.86.II.G.10

Barsky, O. (1978), "Incitiativa terrateniente en la reestructuración de las relaciones en la Sierra ecuatoriana: 1959-64", (Landowner initiatives in restructuring relations in the Ecuadorian sierra: 1959-64") Revista Ciencias Sociales (Social Sciences Review), vol. II, No. 5, Quito, 1978.

Barsky, O. & G. Cosse (1981), Tecnología y cambio social: las haciendas lecheras del Ecuador, (Technology and social change: dairy farms in Ecuador), Latin American Faculty of Social Sciences (FLACSO), Quito, Fraga Editorial.

Barracclough, S. & J. Collarte (1972), El hombre y la tierra en América Latina (Man and land in Latin America), Institute for Training and Research on Agrarian Reform (ICIRA), Santiago, Chile, University Press.

Barracclough, S. & A. Domike (1975), "La estructura agraria en siete países de América Latina", (Agrarian structure in seven Latin American countries)", Lucha de clases en el campo Análisis estructural de la economía latinoamericana (Class struggle in the area Structural analysis of Latin American economy) E. Feder (ed.), Mexico City, Economic Cultural Fund.

Barrera, C.A. (1985), Análisis histórico ambiental, actores tipo y procesos ecológicos, avances en la interpretación ambiental del desarrollo agrícola de América Latina, (Historical analysis on environment, type actors and ecological processes, advances in environmental interpretation of agricultural development in Latin America), ECLAC/UNEP, Santiago, Chile, LC/G.1347, United Nations publication, Sales no.: S.85.II.G.4.

Benjamin, W. (1985), "Expansión y tecnificación de los cultivos permanentes y sus efectos sociales", (Expansion and technification of permanent crops and their social effects), El crecimiento productivo y la heterogeneidad agraria (Productive growth and agrarian heterogeneity), (LC/L.396; RLAC/86/34-DERU-23) ECLAC/FAO Joint Agricultural Division, Santiago, Chile.

Carbonetto, L. et al (1981), "La articulación del proceso productivo agrario con el modelo de acumulación capitalista" (Articulation of the agrarian productive process with the capitalist model of accumulation), Socialismo y participación (Socialism and participation), No. 14, Lima.

Crispi, J. (1984), "Agro, estado y acumulación en Chile: un recuento histórico". (Agriculture, state and accumulation in Chile: an historical review), Estudios rurales latinoamericanos (Latin American Rural Studies), vol 7. No. 3, Bogota.

Crispi J. et al (1980) "Capitalismo y campesinado en el agro chileno" (Capitalism and the peasantry in Chilean agriculture),

Estudios rurales latinoamericanos (Latin American Rural Studies), vol 3. No. 2, Bogota.

Chiriboga, M. (1984), "Estado, agro y acumulación en el Ecuador: una perspectiva histórica", (State, agriculture and accumulation in Ecuador: a historical perspective), Estudios rurales latinoamericanos, (Latin American Rural Studies), vol. 7. No. 2, Bogota.

Dandler, J. (1984), "El desarrollo de la agricultura, políticas estatales y el proceso de acumulación en Bolivia", (Agricultural development, state policies and the accumulation process in Bolivia), Estudios rurales latinoamericanos, (Latin American Rural Studies), vol. 7, No. 2, Bogota.

ECLAC (Economic Commission for Latin America and the Caribbean) (1978), 25 años en la agricultura de América Latina: rasgos principales 1950-1975 (25 years in Latin American agriculture: main traits 1960-1975). ECLAC Notebook series No. 21, Santiago, Chile.

----- (1979), Las transformaciones rurales en América Latina: ¿Desarrollo social o marginación? (Rural transformations in Latin America: Social development or marginalization?), ECLAC Notebook series, No. 26, Santiago, Chile, United Nations Publication, Sales No. S.81.II.G.47.

----- (1982), Economía campesina y agricultura empresarial: tipología de productores del agro mexicano, (Peasant economy and entrepreneurial agriculture: typology of Mexican agricultural producers), Mexico City, Siglo XXI Editors.

----- (1986a), La agricultura en la óptica de la CEPAL (Agriculture from ECLAC's optic), LC/L.385), Santiago, Chile.

----- (1986 b), Anuario estadístico de América Latina y el Caribe 1985, (Statistical Yearbook of Latin America and the Caribbean 1985), United Nations Publication, Sales No. E.S.86.II-G.1 (LC/G.1420/Corr.1), Santiago, Chile.

Edward, G. (1971), O desenvolvimento da agricultura no Brasil, (Development in Brazilian Agriculture), Rio de Janeiro, APEC Editora S.A.

Eliás, V. (1985), Government expenditures on Agricultural Growth in Latin America, International Food Policies Research Institute (IFPRI), Research Report, No. 50, Washington D.C.

FAO (Food and Agriculture Organization of the United Nations) (1985), "Workshop report on the rise of medium production in Latin American agriculture", Rome, mimeo.

- Fernández, M. (1984) "La adopción de decisiones de políticas para el desarrollo rural", (Adoption of rural development policy decisions), Estudio sobre la pobreza rural (Study on rural poverty), Food and Agriculture Organization of the United Nations (FAO), Santiago, Chile.
- Florescano, E. (ed) (1975) Haciendas, latifundios y plantaciones en América Latina, (Haciendas, large estates and plantations in Latin America), Latin American Council for the Social Sciences (CLASCO), Siglo XXI Editors, Mexico City.
- García, A. (1967), Reforma agraria y economía empresarial en América Latina, (Agrarian reform and entrepreneurial economy in Latin America), Santiago, Chile, University Press.
- (1982), "El problema empresarial y la reforma agraria en América Latina. Arcaísmo y modernización en la empresa agrícola" (The entrepreneurial problem and agrarian reform in Latin America. Archaism and modernization in the farming enterprise), Cuadernos de agroindustria y economía rural, (Notes on agro-industry and rural economy), No. 9, Bogota.
- Gastó, J. (1981), "Bases ecológicas de la modernización de la agricultura" (Ecological bases for modernization of agriculture) Estilos de desarrollo y medio ambiente en América Latina, (Development styles and environment in Latin America) O. Sunkel & N. Gligo (eds), vol I, Mexico City, Economic Cultural Fund.
- Giberti, H. (1975) Historia económica de la ganadería argentina, (Historical economics of Argentine stock-raising), Buenos Aires, Solar/Hachette.
- González, J. et al (1977) La planificación del desarrollo agropecuario. Un enfoque para América Latina, (Planning of agricultural development. An approach for Latin America), vol. I. Latin American Institute for Economic and Social Planning (ILPES), Mexico City, Siglo XXI editors.
- Gutman, G. & A. van Kerteren (1979), "Agroindustries et transnacionales au Venezuela", (Agro-industries and multinationals in Venezuela)", Trasnacionales et Agriculture, (Multinationals and Agriculture), Centre for Research on Latin America and the Third World (CETRAL), No. 4, Series 1, Paris.
- Gutman, P. (1985), "Interacción entre productores rurales y ambiente natural: apuntes para una tipología" (Interaction between rural producers and natural environment: notes for a typology), Avances en la interpretación ambiental del desarrollo

agrícola de América Latina. (Advances in environmental interpretation of agricultural development in Latin America). (LX/G,1347), Economic Commission for Latin America and the Caribbean (ECLAC) and United Nations Environmental Programme (UNEP), Santiago, Chile, United Nations publication, Sales No.:S.85.II.G.2

Heynig, K. (1982), "Principales enfoques sobre la economía campesina" (Main approaches on peasant economy), Revista de la CEPAL (ECLAC Journal), No. 16, Santiago, Chile, United Nations publication, Sales No. S.82.II.G.2

ICAD (Inter-American Committee for Agricultural Development (ICAD) (1966) Tenencia de la tierra y desarrollo socioeconómico del sector agrícola : Informe regional, (Land tenure and socioeconomic development of the agricultural sector: Regional report), General Secretariat of the Organization of American States (OAS), Washington, D.C.

Kay, C. (1982), "El desarrollo del capitalismo agrario y la formación de una burguesía agraria en Bolivia, Perú y Chile" (Development of agrarian capitalism and formation of an agrarian bourgeoisie in Bolivia, Peru and Chile), Revista Mexicana de Sociología (Mexican Sociology Review), year XLIV, vol. XLIV, No. 4, Mexico City.

López Cordovez, L. (1982), "Agricultura y alimentación. Evolución y transformaciones más recientes en América Latina" (Agriculture and food. Evolution and the most recent transformations in Latin America) Revista de la CEPAL (ECLAC Journal), No. 16, Santiago, Chile, United Nations publication, sales No. S.82.II.-G.2.

----- (1985), "Transformaciones, tendencias y perspectivas" (Transformations, trends and outlooks), Pensamiento Iberoamericano, (Latin American Thinking), No. 8, Madrid.

Maletta, H. (1984), "Los agricultores medianos en América Latina: elementos para un evaluación comparativa" (Medium-sized farmers in Latin America: elements for a comparative evaluation), Workshop on middle producers, University of Cambridge, preliminary draft.

Matos, J. & J. Mejía (1984), Reforma agraria: logros y contradicciones 1969-1979 (Agrarian reform: achievements and contradictions 1969-1979), Institute for Peruvian Studies (IEP), Lima, Industrial Gráfica Editorial.



Morner, M. (1975), "La hacienda hispanoamericana: examen de las investigaciones y debates recientes", (The Latin American hacienda: examination of recent research and debates), Haciendas, latifundios y plantaciones en América Latina (Haciendas, large estates and plantations in Latin America), Mexico City, CLASCO, SIGLO XXI Editors.

Ortega, E. (1986), Agricultura campesina en América Latina y el Caribe, (Peasant agriculture in Latin America and the Caribbean), (LC/L.405; RLAC/86/49-DERU-24), ECLAC/FAO Joint Agricultural Division. Santiago, Chile.

Pucciarelli, A. (1978), "La estructura de clases del capitalismo dependiente: el caso argentino", (Class structure of dependent capitalism: the Argentine case), Estudios rurales latinoamericanos, (Latin American Rural Studies), vol. 1, No. 2, Bogota.

Rama, R. (1985), "Presencia y efecto de la inversión extranjera" (Presence and effects of foreign investment), in Pensamientos Iberoamericanos, (Latin American Thinking), No. 8, Madrid.

Sabato, J. (1983), "El agro pampeano argentino y la adopción de tecnología entre 1950 y 1978", (Argentine pampa agriculture and the adoption of technology between 1950 and 1978), Procesos sociales e innovación tecnológica en la agricultura de Latin América, (Social processes and technological innovation in Latin American agriculture), M. Piñeiro y E. Trigo (eds.) Instituto Interamericano de Cooperación para la Agricultura, (IICA), (Inter-American Institute for Cooperation on Agriculture), San Jose, Texto Editorial.

Samaniego, C. (1984), "Estado, acumulación y agricultura en el Perú", (State, accumulation and agriculture in Peru), Estudios rurales latinoamericanos, (Latin American Rural Studies), vol. 7, No. 3, Bogota.

Stenberg, M. (1962), Chilean Land Tenure and Land Reform, Doctorate Thesis, University of California, Berkeley.

Tobón, A. (undated), La tierra y la reforma agraria en Colombia, (Land and agrarian reform in Colombia), Bogota, Cancer Editorial.

Wolf et al (1975), "Hacienda y plantaciones en mesoamérica y las Antillas" (Hacienda and plantations in Central America and the West Indies), Haciendas, latifundios y plantaciones en América Latina, (Haciendas, large estates and plantations in Latin America), CLACSO, E. Florescano (ed.), Mexico City, Siglo XXI Editorial.