INTERAMERICAN INSTITUTE OF AGRICULTURAL SCIENCES - OEA
Colombian Office

# A COMPARATIVE STUDY OF PRODUCTION ORGANIZATION AMONG PEASANTS IN PERU, ECUADOR, AND COLOMBIA, WITH SPECIAL REFERENCE TO ASSOCIATIVE PRODUCTION STRATEGIES

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# CONTENT

# INTRODUCTION

This report presents the results of a study of production organization among the peasantry of Peru, Ecuador, and Colombia. Special attention has been placed on associative production strategies (APS). By associative strategy is meant the utilization of production factors between households, among the totality of households in a naturally interacting settlement, and within regional coalitions of households, in meeting long and short term goals.

In placing special emphasis on associative production strategies two goals are addressed: a theoretical goal, in attempting to redress a bias found in the economic and anthropological literatue, and an applied goal, to better understand these associative forms so that they may be utilized in socio-economic development policy and planning.

There is an assumption in the economic and economic development literature that the peasant economy is essentially a household economy (Schultz 1964; Chayanov 1966; Millar 1970; Franklin 1969; Lipton 1968). A similiar bias afflicts the anthropological literature in the form of attributing a set of cultural traits to peasants, manifested largely by the behavior of individuals, which leads to their inability to act in concert for their own well-being (Foster 1965). This bias extends, in general, to the attempt to assert that a cross-cultural economics must be founded on the analysis of individual allocation decisions with little interest manifest in collective decision making. A recent reviewer of the latter literature, however, has suggested that such a concentration on the individual to the detriment of the collectivity may well be an ethnocentric result of the impact of Western liberal democracies (Fjellman 1976: 90).

A superficial reading of the ethnographic literature on peasant societies reveals numerous forms of activities carried out at the level of the collectivity which are oriented toward meeting both long term and short term production. Associative use of labor is perhaps the most common, occurring with frequency in peasant contexts throughout the world (Georgescu-Roegen 1969). Collective ownership of land with individual usufruct is not uncommon. The scheduling of activities and the processing of information through ritual behavior is an important adjunct of the traditional utilization of production factors (Flannery 1972). And, lastly, the collective utilization by peasants of themselves as a source of power occurs in the form of peasant agrarian movements, one of the few vehicles through which peasants can maintain, defend, and expand their mix of production factors, notably, land (see Quijano Obregón 1972 a and b for a review of the literature on Latin American peasant movements).

In explaining the existence of APS in the Andean countries one line of reasoning is that they are continuous with practices that existed before Contact, or emerged later, during the Colonial and Republican periods in each country. I have given some attention in this study to the historical context of contemporary APS. I do not wish to suggest, however, that "survival" is sufficient to explain the existence of associative strategies among Latin American peasants. Such an explanation reduces peasants to conservative, Skinnerian, creatures in which present behavior is determined essentially by past experiences. Rather, I view peasants as rational actors who devise strategies calculated to produce results in a situation. These strategies are constantly weighed as to their cost and rewards, and disregarded should they become unproductive. For example, Erasmus's work (1956) has shown the role market forces played in reducing the

efficiency of certain kinds of reciprocal labor patterns among Latin American peasants. Much the same forces underlie peasants' evaluation of other forms of associative production strategies. What I do suggest in relation to the survival arguments is that should associative practices continue to exist, or emerge, then they will be found to be efficient uses of production factors, given the constraints found locally. Further, their existence, if understood and analyzed correctyly, can provide a base for development strategies involving associative use of productive factors. That this has happened autonomously among "primitives" and peasants is evidenced by Finney's analysis of the "big man" redistributive pattern serving as an entrepreneurial base for market production in New Guinea (Finney 1973), and closer to home, Celestino's documentation in a Peruvian community (1972: 84-85) of the transformation of a traditional exchange labor form, called huallpa, into "work societies" which contract out to peasants needing labor to cultivate tree crops for market, a recent shift from a subsistence economy.

Methodology: Data Gathering Techniques

The procedures that have been used in gathering data for this study are basically the same for each country.

The first step has been to briefly reconstruct aboriginal cultural development at the time of contact and later as agricultural structures evolved in each country. Here secondary sources have been consulted extensively for each country. Fortunately, major syntheses of this literature exist for some countries (see Reichel-Dolmatoff 1965 and Fals Borda 1975 on Colombia) and have been particularly useful. This information is presented in the beginning sections of the chapters on individual countries.

The second step has been to gather information on the organization of production with special attention paid to APS. The basic questions that have been asked in this phase are the following: (1) what are the ecological constraints on the use of production factors, notably land and labor; (2) what is the range of alternative strategies for meeting production goals, given the ecological constraints; (3) under what conditions are APS selected for the utilization of production factors; (4) what are the costs and rewards involved in the selection of an APS; and (5) what are the sociological characteristics of the coalitions that are formed.

Ecological data have come from a number of sources, particularly the geographical literature, as, for example, the work of Troll (1968) and Tossi (1960) on the Central Andes, and that of Guhl (1976) on the Northern Andes, synthetic compilations of the ecological characteristics of the region in a country, such as that included in Gutiérrez de Pineda's (1968) work on Colombia, and available quantitative data contained, in particular, in the C.I.D.A. country studies, the National Censuses, and special censuses, such as the 1932 and 1970 Colombian-Coffee censuses.

Questions two through four imply the analysis of natural decision making within the production sphere of peasant societies. In general, analyses of natural decision making either within experimental settings or in the field have not been successful because of the artificiality of the former and the complexity of the formal models used in the latter (see Fjellman 1976). One direction that is being taken as a response to these problems is the construction of simple decision models which correspond more to the manner in which real people make decisions in real situations. The elicitation of "rules of thumb" (Baumol and Quandt 1964), Simon's "satisficing" model (Simons 1957), and

Uzzell's "play" model (Uzzell 1974, 1976) are examples of this trend. Because of time constraints and the use of a regional unit of analysis (see next section), I have not been able to gather the in-depth data required for these models. What I have done is attempt to reconstruct the process leading up to the choice of production strategies using insights from the range of types of data I collect and reasoned logic based on my knowledge of the theoretical literature on peasant economics.

The last question put to the data has been formulated according to the approach used by Foster (1975): given ecological constraints and existing rewards, what are the sociological characteristics of the groups that are formed? These characteristics are described by Foster using a modified version of Eric Wolf?s scheme (1966: 81-89) for classigying peasant coalitions. Foster's approach is particularly useful for the analysis of groups formed during the course of labor recruitment. It has been used to some degree in the chapter on Peruvian peasants, but, because of limitations in the available data, could only be drawn on marginally in the other chapters.

Data on production organization has come from a number of sources. The ethnographic literature on the peasantry of each country has been basic. It varies considerably in quantity and in quality across countries, and regions within a country; I have not always been able to find the detailed descriptive material I would like to have had. Hence, there are some gaps I have not been able to fill. In Peru, for example, there is a corpus of abundant and high quality ethnographic material covering virtually all of the major regions of the country. In Colombia and Ecuador, on the other hand, the situation is not nearly as provident, and I have had to resort to supplementary

quantitative data from censuses, surveys, and secondary sources to a great extent. Thus, in the latter case, micro-economic production processes do not come through as clearly as in the former.

Other material came from the work of agricultural economists. Some of the associates of the Land Tenure Center of the University of Wisconsin, for example, have produced sophisticated microeconomic analyses of peasant production which have been extremely useful. Haney's dissertation on a minifundio community in highland Colombia is a case in point. I have also made reconnaissance trips to all of the major regions in each country. Because of time constraints, however, I have not been able to do in depth fieldwork. My previous research in southern Peru in 1971-72 did provide many of the ideas and some of the substantive data which were developed during the course of the study. A further source of information has come from consultation with anthropologists who have fieldwork experience in the three countries. Their assistance has been of immeasurable value, in naming libraries to consult, in providing me with copies of their work, and in suggesting provocative leads to follow up. These individuals include, in particular, Nina de Friedemann, Elías Sevillas-Casas, and Roberto Pineda in Colombia, Eduardo Archetti and Hernán Crespo in Ecuador, and Enrique Mayer and Bob Werge in Perú. Others took the time to read the original research design and offered their comments; they include Charles Erasmus, George Primov, Sutti Ortiz, William Thiesenhusen, Ernesto Liboreiro, Armando Cardozo, and Joseph Casagrande.

Methodology: Data Analysis

In my analysis of the data I have avoided the particularistic "community study" level of analysis which is characteristic of much of socio-cultural anthopology. Instead I have sought to present my data at a middle range of generalization, using a regional unit of analysis. The criteria which I have chosen are several. Within the Andean area, geographers customarily distinguish between the Northern, Central, and Southern Andes based primarily on climatic variations. Alongside of these divisions, significant national groupings of peasants have emerged within the social, economic, and political context of each country. Thus I have organized chapters in this study by ecological region and by country viz. the Northern Andes of Colombia; the Central Andes of Peru. Further, within each country, where justified by significant differences of a historical or ecological nature, I distinguish subregions. Thus for Colombia, there is the Northern Andean Lowlands and the Northern Andean Highlands with subregions peculiar to each.

A guiding assumption in assembling the data is that the household is a major locur where factor allocation decisions are made in the production process. Only in rare instances, such as the non-unilineal descent groups of the Pacific Coast of Colombia, has this assumption proved to be wrong. This does not imply, however, that associative and even collective production strategies are not found. In order to examine these in some depth, I have looked at the small holder peasant, generally a peasant who has access to land up to around ten hectares in size through any of a number of direct and indirect usufruct arrangements. This is the classic minifundio

peasant, in a majority of the countries studied. Normally the household head controls a set of production factors with land and labor coming to mind as the most basic. Since he is a small scale farmer with limited capital, he must often resort to a multiplicity of associative strategies for gaining access to crucial production factors.

One of the problems encountered in the study has been to make sense out of the myriad of local terms used for labor arrangements in the Andes. This lack of common denominator derives from the extreme regionalism which the Andean topography engenders. In order to impose some order on the problem, I have used a classification proposed by Udy (1959) with modifications suggested by the work of Erasmus (1956). The classification is given in the following table:

| | |
|---|---|
| Familial (household) | Obligation to participate is based on ascribed kinship or fictive kinship status in household. |
| Contractual | Exchange of one's labor for cash or the equivalent in kind. |
| Reciprocal | |
| ---exchange | Day paid for day worked "balanced exchange". |
| ---festive | Festive work party with no immediate expectation of reciprocity. |
| Custodial | Obligation to participate is based on differential ascribed power. Sanctions compel participation. |

# THE CENTRAL ANDEAN HIGHLANDS OF PERU

# THE CENTRAL ANDEAN HIGHLANDS OF PERU

## The Ecological Setting

The Andes mountains are part of a larger mountain chain properly known as the Cordillera which extends over 15,000 kms. from Alaska to Fuegomagellania. They are the dominant topographical feature of western South America presenting formidable mountain barriers with numerous peaks over 20,000 feet in altitude. Geographers usually make a division between the northern, central, and southern Andes. The Northern Andes include Colombia, Ecuador, and a small part of Peru. They are chracterized by a double rainy season which supports wet rain forest in areas of high altitude between 10,000ft. and the snow line. Such areas are unfavorable for grazing llamas and alpacas, explaining their nonuse by people who occupied this region. The Central Andes have a contrasting rainy and dry season resulting in a highland covered by bunch grass ideal for grazing. The Southern Andes extend from Bolivia southward and are separated by a desert strip from north Chile to the Patagonian plateau. In the Central Andes the cordillera separates into two branches, the eastern and western cordillera, creating the Altiplano, a wide intermontane basin in southern Peru and northern Bolivia.

The Andean cordillera lies largely in the tropical latitudes. This gives rise to a major difference in terms of temperature variation between it and the mountainous regions of the temperate and cold latitudes. In the higher latitudes there is a marked seasonal distinction between a cold winter and a warm summer, while in the mountainous regions of the tropics, even up to high altitudes and in the region of perennial frost

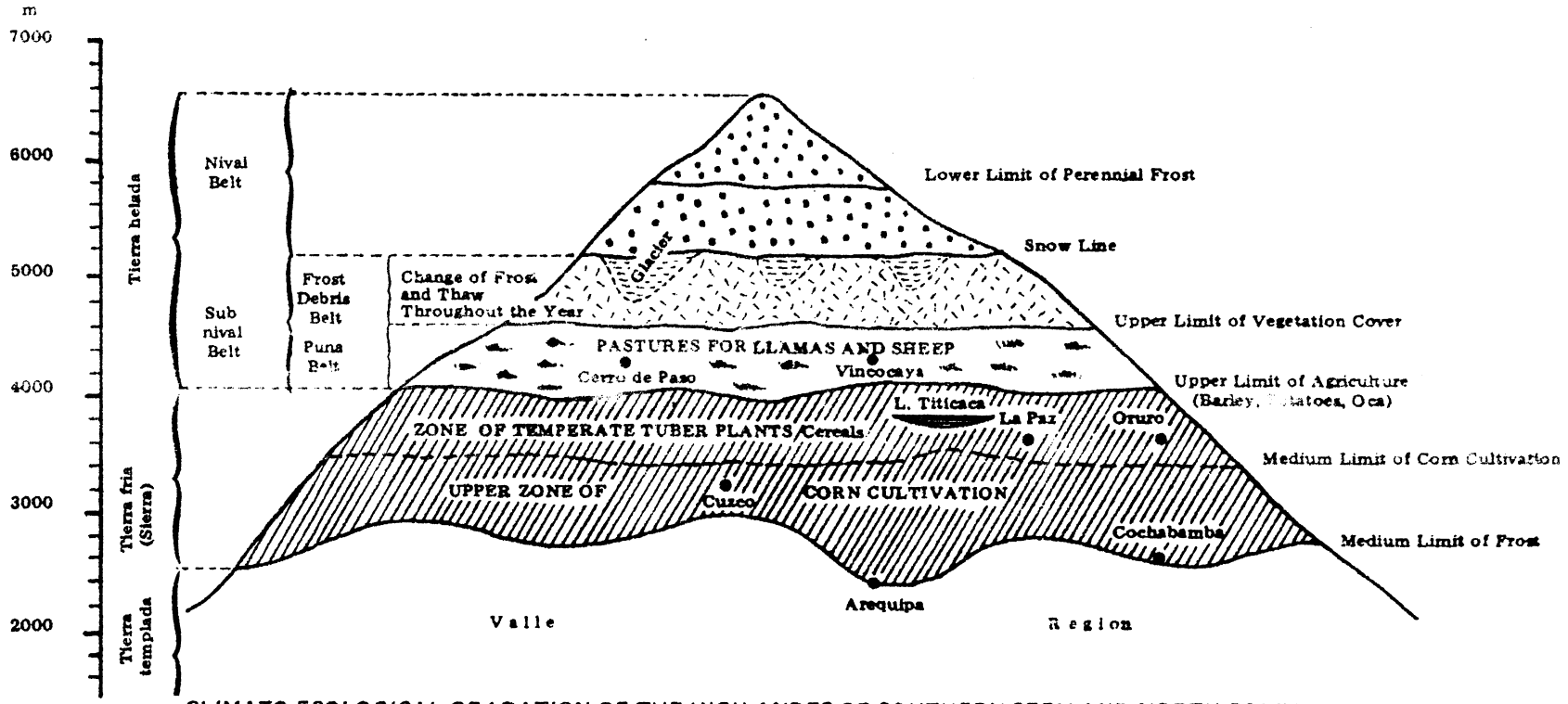
and snow, there is little or no variation in mean monthly temperatures. Rather, the major variation occurs between day and night time temperatures. The diurnal range of temperature is at its highest in the dry intermontane basins such as the Puna de Atacama of northwest Argentina, northern Chile, and southern Bolivia.

As one ascends the tropical Andes, temperature decreases, producing successively colder thermal zones. The most important climatic variable is the occurrence of frosts. There is no winter frost as in the seasonal succession characteristic of high latitude mountain ranges, rather frost may occur during the night and be absent during the day. The frequency of night frosts determines the vertical zonation of landscape type such as the upper limits of agriculture and the upper limit of tree growth. Night frosts increase with altitude unless mediated by topographical features such as the ravine, or quebrada, where temperatures are lower than the more exposed landscapes.

The following figure, taken from Troll (1968: 33, fig. 14), illustrates the vertical zonation in southern Peru and northern Bolivia.

Troll's comments on this region of the Andes are succinct:

> The lower limit of frost is at about 3,000 m. on the average. Up to 3,500 m. maize can be grown in the frost free rainy season. This zone is followed by the region of tuberiferous plants where wheat and barley were introduced in modern times, and which reaches up to the upper limit of cultivation at 4,100 m. In this altitudinal zone, on the Altiplano and in the Titicaca basin, in the valleys of La Paz and Cuzco, there is regular night-frost during the dry season which is made use of for the production of Chuño after the potato harvest. Still higher up, we get into the grassland of the puna region where llama and alpaca, the domestic animals of Inca times, and the wild vicuña have their ecologically appropriate environment. At 4,700 m. the uninterrupted plant cover ends, and a sort of frost desert (frigoridesertum) with nightly frost begins. This zone ends at 5,300 m. at the climatic snow line (Troll 1968: 33).




CLIMATO-ECOLOGICAL GRADATION OF THE HIGH ANDES OF SOUTHERN PERU AND NORTH BOLIVIA.

## Aboriginal Cultural Development

At the time of the arrival of the Spanish, the Central Andes was under the control of the Inca empire, a theocratic centralized state. With the Inca, the level of cultural development increased considerably over that which had previously obtained. The accomplishments in technology, particularly weaving and stone working; a complex administrative system based on decimal divisions; a policy of mass movements of local populations; economic stockpiling; and the development of transportation and communication infrastructure.

One important rural institution existing prior to Incan expansion was the ayllu. The nature of the ayllu has been the subject of much controversy. For our purposes it can be thought of as a residential and territorial unit enclosing a population linked through ties of kinship. Heading the ayllu was a local official, the curaca. In regions where ayllus were integrated into valley and regional confederations and states, curacas were instrumental in mediating between the ayllu and the larger socio-political entity.

The ayllu economy combined agriculture and livestock management. Agrarian technology was rather primitive by modern measures, but in retrospect, well - adapted to the exigencies of the Central Andean ecological setting. It included an indigenous tool kit in which the chakitaclla, a foot plow, was most important. The chakitaclla was used exclusively in soil preparation; various kinds of specialized tools were used for other tasks. Labor power was human and Indians worked in groups to the accompanimant of songs and the rhythms of music. Many kinds

of naturally occuring fertilizers helped to increase productivity. They included human excrement, animal manure, fish, and, later when the Incas conquered the land along the Pacific coast, guano. A diverse set of native cultigens such as the tubers, potato, oca, lisa and the cereals, maize, quinhoa, and tarwi formed the crop mix. The number of local varieties of these cultigens was and is very high. To a large extent they represent specialized adaptations to specific micro-ecological conditions. In some areas prior to the Incan expansion, such as in the Chimu state on the north coast, sophisticated irrigation systems involving large stretches of land and a complex administrative bureaucracy had increased the productivity of land significantly. On occasion canals were cut into rock for more than 60 miles, sent through tunnels and carried across aqueducts. Irrigation technology together with terracing and widespread use of custodial labor enabled the Incas to increase productivity and production throughout their empire. Following the Spanish intrusion, these systems fell into disuse. At the local level, however, production organization has changed very little since from before the Incas until the present.

On the conquest of a region, the Inca divided land of each ayllu into three parts: the first and usually largest part remained with the ayllu to meet the needs of its residents; a second part was set aside for the ends of the Inca; and a third was devoted to the Sun, the Incan cult deity. Custodial labor was used to cultivate the land. Within an ayllu, land was distributed to each household according to its needs. This amount was theoretically fixed in terms of a unit measure called a tupu; in practice, this amount varied according to the altitude, availability of water, soil quality, etc. This land was alloted to each household in usufruct during an annual redistribution

accompanied by much ritual and display, but no other rights prevailed. Some chroniclers maintain that there was also a small house plot which, although held in usufruct, remained with the household for life and was passed on together with the house inheritance.

The produce of Inca lands was stockpiled in Cuzco and at locations in the provinces. It was used to provision a large standing army and the administrative class and was drawn upon to feed the population during times of drought. Land of the Sun was used to maintain priests and their families who served the state religion.

A similar formula was used with respect to livestock. Large flocks were kept by each ayllu and pastured on the higher reaches of the puna. Other flocks were controlled by the Inca and the Sun.

The Evolution of Agrarian Structures

The contemporary agrarian structure of Peru can be traced to processes originating in the Colonial period. The initial judgment of the Crown was to maintain the existing socio-political organization of the Inca empire as intact as possible, with subtle changes made to reorient production toward new goals. These goals were the extraction of tribute in kind and the provision of labor to exploit the lucrative mining resources known to exist. Incan institutions proved quite adaptable to meeting these ends. The mita was used to provide labor for the mines and land owned by the Inca and the Sun during the period prior to Conquest was used by Pizarro to

reward his followers. Grants of Indians together with the land they occupied, called encomiendas, were made to the conquistadores and later arrivals from Spain. An encomendero was allowed to collect tribute from the Indians, but became responsible for their protection and instruction in the Catholic religion. During the first decades following Conquest, the Crown possessed sufficient land to meet the needs of new encomienda grants, but, later, following the diminution of these lands and the demands from recently arrived Spaniards and Church institutions, called manos muertos, the decision was made often surreptiously to distribute land belonging to ayllus and caciques.

The encomienda system, it soon became apparent, was a corrupt and abusive misuse of the native population. During the rule of the Viceroy of Toledo, from 1568 to 1581, attempts were made to rectify the situation. The creation of new encomiendas was prohibited and a far reaching reorganization of the socio-political system was instituted. The latter reform was occasioned by difficulties in administering the native population which stemmed from its characteristic dispersed settlement pattern toghether with a drastic reduction in its size following the Conquest (Smith 1970). These difficulties included exacting tribute, mobilizing the labor of the native population, and proselytizing on behalf of the Catholic Church. The Crown's response was to bring Indians into population concentrations, resembling small towns, which were called reducciones. Each reducción was granted a quantity of land as its resource to control. These grants differed significantly from Incan policy which was to allow ayllus to cultivate land held in usufruct. This principle established by the Crown, of considering land within the

boundaries of an Indian community as its property, has endured through subsequent indigenous legislation.

Another form of collective property was the ejido. This term refered to land set aside by the Crown to provide for the anticipated growth of towns. Urbanization, however, was rather slow in getting started during the Colonial period, and ejido land came to be used most often as a grazing commons. Where towns were established, priests organized religious brotherhoods, called cofradías, devoted to the worship of a saint. Often, members of a cofradía would donate land to help meet cult expenses. This land represents another form of holding during this period, along with ejidos, land belonging to ayllus and caciques, the Crown's land, and encomiendas. Lastly, some Indians escaped to the higher, more remote areas, away from the reducciones and the Spanish towns. The land which they held was used to pay tribute and they came to regard it as their private property thus creating another form of holding.

The decrees of Simon Bolivar following Independence caused further transformations in the countryside. One set of decrees ordered the parcelization of the land within Indian communities and its distribution among the residents. Another set of decrees facilitated the redistribution of the confiscated property of Crown loyalists among those who had fought for independence. Through these means Indian land was further alienated, large holdings became more predominant, and the composition of the agrarian elite changed from Spanish to criollo.

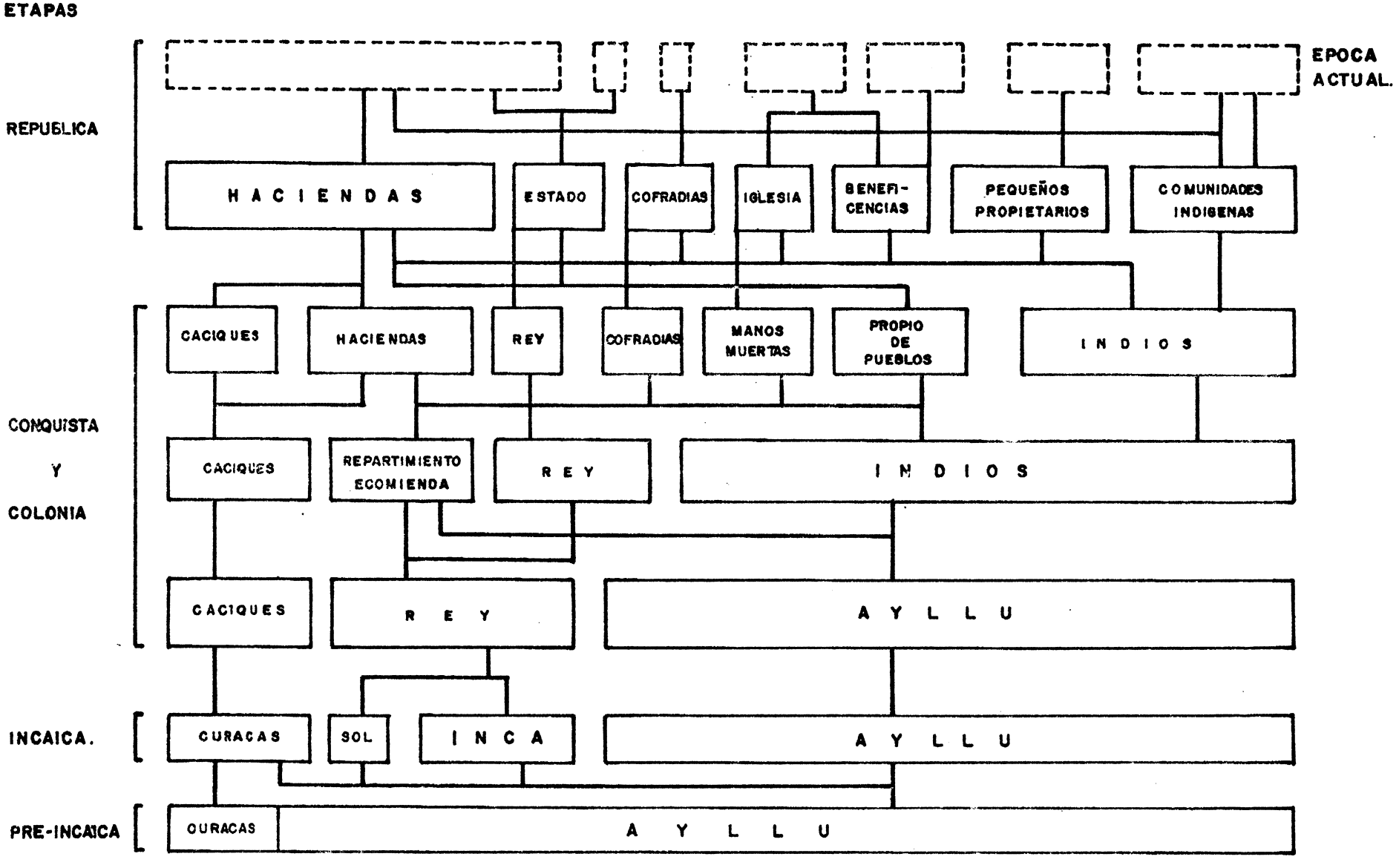
The obligation of Indians to pay tribute reappeared following Independence. This, together with the land grants made to criollos, caused consternation in the countryside.

In designating land to be redistributed, existing boundaries between the various forms of holdings were often ignored. Further, another decree gave the Indians the right to purchase and sell their lands, although they were not supposed to exercise this right until 1850. This decree was later modified somewhat to limit the privilege of sale to Indians who could read and write. The drift to a free exchange on land on the open market was further accentuated in the Civil Code of 1852. In effect, these decrees facilitated the alienation of communal land and conflicts over boundaries between communities and haciendas. Their provisions were broken not only by criollos, but by Indians who sold land to which they lacked title, often land belonging to the state, other communities, and other Indians. Much later, when a government agency, the Dirección de Asuntos Indígenas, was created to mediate these conflicts, its rulings often resulted in land passing over to haciendas.

Thus, while a good number of haciendas can be found to have their origins during the Colonial period, the open exchange of land obtained under legitimate or illegitimate means during the Republican period aided in the creation of a different kind of hacienda. It is certainly true that the blame is due as much to political, religious, and legal authorities as it is to the ubiquitous tintorillos and their permutations. Not only did this land come from Indian communities; manos muertos' land suffered a similiar fate through being broken up by priests and sold or otherwise illicitly obtained by Indian communities and small holders. On the other hand, many church properties grew considerably as a result of donations made by members of a cofradía.

These trends are illustrated in the following diagram taken from the C.I.D.A. report on Peru.

# ESQUEMA GENERAL DE LA EVOLUCION DE LA TENENCIA DE LA TIERRA EN EL PERU



Contemporary land tenure in Peru reflects changes made by the agrarian reform decreed by the government of General Juan Velasco in 1969. Virtually all the large size holdings have been expropiated and turned over either singly or in conjunction with several properties to associative production units consisting of workers and representatives of government agencies. The traditional latifundio class of Peru has thus been eclipsed by government fiat. Other provisions have prohibited indirect usufruct causing a return migration to the countryside of owners who had controlled their properties from the city (Guillet 1976). Since our interest in this study is with the organization of production among small scale peasants, we will not deal with this fascinating problem, part of which was analyzed in my dissertation (Guillet 1974).

In lieu of adequate quantitative data on the distribution effects of the agrarian reform, we will assume here that distribution remains essentially the same with the notable exception of a change in ownership and administration in the large size properties. Based on that assumption, we will refer briefly to the results of the C.I.D.A. study made in the mid 1960's in order to place in context the position of small scale peasants in Peru.

In the accompanying table, data are presented on the number and distribution of agricultural units in Peru, based on an agricultural census made in 1961. This census enumerated agricultural units and not the owners of operators of a particular unit. Thus, in some cases, a unit may have more than one owner; in other cases a production unit may have been enumerated as autonomous but in fact constituted part of a larger unit. The latter occurred, for example, with yanacona plots, enumerated separately, but actually obtained in usufruct from a hacienda. Here the hacienda more accurately reflects the actual production unit.

Agricultural units are calculated according to three main categories of tenure. Land in private hands constituted 88.3% of the total land area. Indigenous community land with individual usufruct by comuneros totalled 3.1%. And collective land, generally common pasture, totalled 8.6%.

The degree of land concentration is apparent. 3,792 units larger than 500 hectares controlled 75.9% of the total area, but represented only 0.5% of the total number of units. Units under 5 hectares, including those owned independently and those held in usufruct from Indian communities, constituted 83.2% of the total number, but only 5.5% of the total area. And finally, as an indicator of the extent of minifundismo, 290,900 units were under 1 hectare in size, but which together comprised only 0.6% of the total area.

Organization of Production: the Household

The household is the fundamental axis of the Andean peasant economy. The production strategies of the household head involve the allocation of the factors of production (his particular allocation of land, labor, and technological resources) at his disposal throughout the period of the agricultural cycle. In deciding on one's production strategies, a household head will invariably consider the labor of the household as a given; no cost or wage will enter into the calculation of labor as an input. While there may be inputs which are purchased, such as seed, fertilizer, insecticide, and specialized implements, they are qualitatively different from household labor.

In the ecological setting of the Central Andes, one finds a peculiar set of subsistence strategies which may be subsumed under the rubric verticality.

# TABLE ONE

## PERU: NUMBER AND AREA OF FARM UNITS WITH CLARED LANDS, BY SIZE AND TENURE CLASS, 1961

| TYPE OF REGIME | FARM UNITS | | | | | | |
|---|---|---|---|---|---|---|---|
| | NUMBER | % | AREA (HECTAREAS) | % | ESTIMATED AREA (HECTAREAS) | % | |
| A. UNDER ONE TENANCY REGIME | 772.330 | 90,7 | 17.709.661 | 95,2 | | | |
| I. DIRECT. | | | | | | | |
| a. PROPERTY | 569.605 | 66,9 | 12.211.708 | 65,6 | 12.767.214 | 85,1 | 68,7 |
| b. COMMUNAL | 808 | 0,1 | 1.603.956 | 8,6 | 1.603.956 | 10,7 | 8,6 |
| c. USUFRUCT. | 42.945 | 5,0 | 568.770 | 3,1 | 636.300 | 4,2 | 3,4 |
| TOTAL DIRECT | 613.358 | 72,0 | 14.384.434 | 77,3 | 15.007.470 | 100,0 | 80,7 |
| II. INDIRECT. | | | | | | | |
| a. RENT | 80.455 | 9,5 | 2.264.016 | 12,2 | 2.446.477 | 68,0 | 13,1 |
| b. SHARECROP | 31.743 | 3,7 | 116.144 | 0,6 | 143.106 | 4,0 | 0,8 |
| c. YANACONAJE | 18.696 | 2,2 | 71.246 | 0,4 | 77.116 | 2,1 | 0,4 |
| d. OTHER | 27.878 | 3,3 | 873.821 | 4,7 | 930.331 | 25,9 | 5,0 |
| TOTAL INDIRECT | 158.972 | 18,7 | 3325.227 | 17,9 | 3.597.030 | 100,0 | 19,3 |
| B. UNDER MORE THAN ONE TENANCY REGIME. | 79.627 | 9,3 | 894.839 | 4,8 | | | |
| TOTAL | 851.957 | 100,0 | 18.604.500 | 100,0 | 18.604.500 | | 100,0 |

SOURCE: TABLE 4-IV CIDIA STUDY ON PERU.

Verticality, or the securing of products from a variety of vertically arraged ecological zones, is a basic principle to which production is oriented, either directly in the cultivation of crops which are consumed, or indirectly, in the production of goods from one zone which can be sold or traded to acquire products from other zones. It is particularly characteristic of the central Andean highlands where altitude is most pronounced as an ecological determinant (Brush 1973, 1974; Burchard 1971; Custred 1972; Gade 1967; Webster 1971).

Brush (1974) has surveyed ethnographic accounts of contemporary peasant communities and constructed a typology of patterns of verticality based on distance between ecological zones. The first type is "compact"--peasants reside in a settlement adjacent to two ecological zones and exploit these and other ecological zones no more than a day's walk from them. This type is most frequently found in the ecologically diverse eastern edge of the Andes. The second type is the archipelago, suggested by Murra's original discovery of the verticality pattern based on ethnohistorical research on the Chupaco of Hanuco and the Lupaka of the shores of Lake Titicaca, both ethnic groups of the immediate Contact period. Flores Ochoa (1970) has found evidence that the pattern reported for the Lupaka continues in a truncated version in southern Peru. In the archipelago type, ecological zones are not contiguous but rather dispersed over considerable distance necessitating migrations of up to ten days duration. The effect is to create "colonies" of a peasant community, controlled either by the community itself or by households. The third type is the extended, in which communities are found in the larger valleys in a dispersed settlement pattern. These communities tend to specialize in one of the products of an ecological zone and obtain products of other zones through exchange.

In the compact and archipelago types of verticality, one of the most important distinctions is between the ability of the community and the household to control strategically placed land. There is reason to believe that the community's control over ecological zones has dissipated due to a number of historical processes, including the expansion of haciendas into the fertile valley bottoms (Piel 1969) and most recently into the herding zones of the puna (Piel 1967), the specialization and subsequent dependence on exchange in the extended pattern of verticality, and the degeneration of land in an ecological zone, through erosion, over grazing, disregard of sectorial following practices, and the like.

In societies when resources become scarce and population increases, unilineal descent groups, notably clans, often emerge to ensure the group's continuing subsistence (Netting 1974: 30-31). However, such groups are rare in peasant societies. Goldschmidt and Kunkel, in a comparative analysis of peasant family structure, hypothesized that their absence could be attributed to the unwillingness of the state to allow competing local political units and that quarrels and disputes would follow upon such control guiven scarce land resources and where the same plot is used year after year, unless the group were in fact a strong political entity (Goldschmidt and Kunkel 1971: 1060). In the peasant economy of the Andean countries corporate descent groups are notably lacking. Instead kinship is usually bilateral (Fuenzalida 1967-1968) and the variety of bases exit, such as friendship and fictive kinship, upon which short term social alliances can be rounded. Certainly the changes in the demographic composition of rural society since Contact weakened the economic funcions of the ayllu. It would seem that today, given these changes and the concomitant shifts in control over land, ad hoc alliances are

necessary to create and maintain access to strategically placed land in the vertical ecology of the Andes. Indeed the Andean experience supports the argument put forth elsewhere (Bloch 1974: 50) that the necessity of forming strategic alliances, with economic as well as political ends, requires a flexible social fabric offering multiple channels of association.

Control of strategically placed land at the household level is not an innovation in Central Andean production. Karen Spaulding has compiled a list of named plots of land in the 17th. century in what is today Huarochire and compared them with their comtemporary locations. She found that while the distance between an individual's plots of land had decreased over time, they continued to demonstrate household control over a variety of ecological zones (Spaulding 1972: 56).

One common means to gain access to strategically located land in contemporary communities is through the use of social relations. Brush in his work in a peasant community (1975) in the northern highlands of Peru, found that sharecropping was of major importance in equalizing access to resources distributed among the local mix of ecological zones. In his sample of the composition of sharecropping arrangements, an overall average of 69% of kinsmen were selected to be sharecroppers as compared with 31% for nonkinsmen. Interestingly, fictive kinsmen were relatively unimportant in the selection of sharecropping partners. Custred, on the other hand (1973: 44), finds that marriage endogamy and exogamy may closely adjust to the location of and access to strategic types of land and manipulation of the social environment is incapable of solving the

need for a multizonal cultivation pattern, there is evidence that regional market systems and peripatetic traders also enter into the movement of goods deemed crucial for subsistence (Custred 1973: 44; Thomas 1973: 168).

The verticality constraint operates in other areas besides the location of cultivable land. Browman (1974) found that peasants residing in the puna zones often combine pastoral nomadism with agriculture in a single subsistence strategy. Roberts and Samaniego (n.d.) report that high altitude households consciously diversified economic strategies between various altitudinal zones and haciendas.

> We find the development of relationships that were based on marriage or compadrazgo with these different locations. These relationships represent the diversification of the household as a brother or sister moves to a different place, marries and settles there, but maintains social and economic relationships with the highland villages. The equal inheritance of family property amongst all siblings strengthened relationships between kin in different locations; the custom for the woman, especially the mother, to care for the animals, enabled males to work elsewhere. This economic differentiation by household was not necessarily a conscious strategy amongst highland villagers. Similar processes are reported from lowland villages and the nature of pastoral activity encouraged some family members to leave home and seek work elsewhere (Roberts and Samaniego n.d.: 10).

Multizonal production strategies in the Andes are consistent with findings in other parts of Latin America (Gonzalez Jacome 1976; Murphy and Stepick 1974) of peasants utilizing resources in a variety of locations in meeting production ends.

## Inter-Household Labor Recruitment

One of the most perplexing problems of reviewing the Central Andean literature is to create order out of the variety of terms used locally to describe forms of labor

recruitment. These terms include ayni, minka, trabajos de republica, torna-peon, faena, waje-waje and jornal. The problem is that the meaning of a term shifts on a micro-regional basis. For example, minka means labor exchanges on a day paid for day worked basis along with the provision of food and drink (Ghersi Barrera 1961: 97) in Marcara; festive group labor with expectations of reciprocity in Viru (Holmberg 1954: 62); an individual who is one's replacement for labor obligated in an earlier labor exchange in Taraco (Ghersi and Arquinio 1966: 20); festive group labor with no expectation of reciprocity in Soras (Turpaud and Boluarte 1966: 68) and wage labor in Huarochiri (Guillern de Boluarte 1958: 58). This problem was encountered by Fuenzalida (1970) in a review of the Andean literature on class and ethnicity. It occurs as a result of the strong micro-regional distinctions that the Andean topography engenders.

In order to systematize our review of forms of labor recruitment we have used the classification proposed by Udy (1959), with some modifications suggested by the work of Erasmus (1956).

Four different forms of labor recruitment can be found in the literature. The first, already mentioned, is familial labor, a "given" exploited as such by the household head. The second is reciprocal labor, of basically two types. The first, called exchange labor by Udy (1959: 175) as festive labor. Festive labor involves the provision by the host of quantities of food and drink. A festive atmosphere permeates

TABLE 2

FORMS OF LABOR RECRUITMENT IN THE CENTRAL ANDEAN HIGHLANDS OF PERU

| | | |
|---|---|---|
| Familial (household) | Obligation to participate is based on ascribed kinship or fictive kinship status in household | |
| Contractual | Exchange of one's labor for cash or the equivalent in kind. | Minka: Ghersi Barrera 1961: 97 Guillen de Boluarte 1958: 58 Mendizabal Losa: 1964: 79 Custred 1973: 24 |
| Reciprocal -- exchange | Day paid for day worked "balanced exchange" | Minka: Fonseca and Murruagarra 1966: 14; Ayne: Castillo et al n.d., 25-26; Ghersi and Arquinio 1966: 20; Turpaud and Boluarte 1966: 27; Mishkin 1960: 169-170. Huallpo: Celestino 1972: 84. Hudji: Adams 1959: 1[illegible] Waie-waie: Fonseca 1974. |
| -- festive | Festive work party with no immediate expectation of reciprocity | Minka: "Turpaud and Boluarte 1966: 27-28; Vazquez 1952: 102; Holmberg 1954: 62 |
| Custodial | Obligation to participate is based on differential ascribed power. Sanctions compel participation | Republica: Ghersi Barrera 1961: 96; Vazquez 1964:60; Faena: Guillen de Boluarte 1958: 63-64; Mendizabal 1964: 53,80; Cotler 1959: 60; Maynard 1964:50; Andrews 1965: 57; Boluarte Garay 1958:239 |

the occasion and the host has no obligations to reciprocate the labor recruited, although he is expected to attend other festive work parties. Contractual labor is defined by Udy (1959: 57) as a voluntary contract between two parties, i.e., an agreement to behave in a specified way for a specified time in the future. The most crucial diacritica of this form is that one's labor is exchanged via a spoken but usually unwritten contract for cash or the equivalent in kind. Custodial labor is based (Udy 1959: 57) on a different set of principles and will be discussed at a later point.

The utilization of reciprocal labor is a common strategy in the tool kit of peasant households around the world (Georgescu-Roegen 1969). Recruiting labor through the creation of social ties is a rational adaptation to the periodic undersupply of labor and the problems of scheduling. However, Charles Erasmus has argued (1955; 1956) that there has been a general decline in reciprocal labor in Latin America as a result of the diffusion of the market economy and the availability of cash. The Andean literature reveals that the festive form of labor recruitment is indeed on the decline, while labor exchanges of the day paid for day worked variety appear to be flourishing (Mayer and Zamalloa 1974: 74). Even in communities such as Lampian in the Chancay Valley of Peru's central coast, where cash cropping has almost entirely replaced subsistence agriculture, exchange of labor has not disappeared but rather intensified (Celestino 1972: 84-85).

The reasons for the persistence of reciprocal labor are complex. It can be argued that balanced labor exchanges are more efficient than the contractual exchanges. The norm of reciprocity is extremely strong in Andean society. As in Benedict's analysis of the interaction of the members of a family firm (Benedict 1968), a peasant would

likely evaluate the gains and losses of reciprocal behavior as a positive incentive to recruit exchange labor over contractual labor. Such an explanation has been given in the transition to labor intensive cash crops where the pattern of labor recruitment reflects increasing use of reciprocal and familial labor as opposed to contractual labor (Guillet 1976b).

A second explanation for the perseverance of reciprocal labor is related to the differential modes of technology and the characteristics of vertically arranged ecological zones. In the lower altitudes, where maize is grown, the agricultural cycle and the use of indigenous technology would ordinarily involve periods of labor scarcity, primarily soil preparation, weeding, and harvest. However, the post-Conquest introduction of the plow and the oxen, and more recently, the tractor, has drastically reduced labor requirements in the soil preparation phase of maize cultivation. Harvest continues to be a period where extra-household labor is needed.

In general, in the higher altitudinal zones of the puna, technology remains traditional, suggesting in those communities which cultivate both maiza and potatoes, the anomaly of a technologically progressive maize agriculture alongside, or rather "below", a traditional paleotecnic tuber agriculture. This is a superficial impression, however. There are numerous reasons why technology is traditional in the tuber zones. Plow and oxen cannot negotiate the steep slopes of the high altitudes, plots are often quite small and studded with rocks, strenuous work by oxen at altitudes above 4.000 m. may lead to an increased incidence of pathological conditions (brisket disease) associated with hypoxic stress, and transhumant migration to higher areas in the rainy season would expose

oxen to stressful climatic conditions (Thomas 1973: 127-28). For these reasons the ubiquitous Andean footplow, the chakitaclla, is best adapted to high altitude tuber cultivation.

The chakitaclla involves a masa of two to three adult men wielding the foot plow and another person who pulls the piece of sod over on its back to expose the roots to the killing rays of the sun. Since plots are widely distributed among the cultivable sectors of the sectorially fallowed lower puna, the most efficient use of labor is several masas moving together in tandem until the plot is finished.

Chakitaclla technology in the higher altitudinal zones requires extra-household labor which is usually met by work groups recruited for the particular task. Not only soil preparation, but other tasks of tuber and grain cultivation in the lower puna zones are carried out by these reciprocal work groups. Thus the persistence of reciprocal labor is a function of the interaction of environment and available technology in the higher altitudinal zones.

The constraints involved in recruiting an exchange labor group should tell us something about its characteristics. Basically, additional labor is needed by a household head to meet a peak period. No division of labor is necessary in that any adult is capable of performing the task. And, the size of the group can vary according to the quantity of land to be worked. Under these conditions, we would expect exchange labor groups to consist of sets of dyadic relationships to the individual recruiting the group. These groups would manifest few differences of authority or power since such

distinctions are immaterial to the groups' functioning. And they would be short term, ending when the immediate reciprocities had been worked out.

Several bases for recruitment into an exchange labor group exist. Some writers suggest that there has been a shift from kinship to territorality as a basis for recruitment (Mishkin 1964: 148), while others argue that kinsmen, particularly collaterals, are those who form the most frequent ayne partners (Custred 1973; Mayer and Zamalloa 1974). Most Andean communities are organized into sectors, barrios, and other named community divisions in which residence over laps with kinship (Mayer and Zamalloa 1974: 79). Thus, some confusion can be expected in distinguishing between kinship and territorality as a basis for recruitment. However, no regular recruitment principle is necessary and any ties between members of a group are incidental to the group's existence (Foster 1975: 384-85).

Where the constraints involved in recruiting exchange labor groups change, then they may take on considerably different characteristics. Lampian, a community in a Peruvian coastal valley, has recently shifted from subsistence to the cash cropping of tree crops. Celestino (1972: 84-85) documents the transformation of the traditional exchange labor form, called <u>huallpa</u>, into "work societies" which provide mutual aid and cash income by contracting themselves out to other parties. As a result, labor is relatively constant in demand, some division of labor and decision making is required, and there are advantages to a stable group membership. The work societies thus have an administrative hierarchy, operating rules, and last for as long as four years. There does not seem to be any regular recruitment principle at work; not only kinsmen, but friends and fellow soccer team members will make up a work group.

It should be obvious that labor recruitment is one of the most strategic decisions faced by the household head. He must constantly weigh the "costs" of the types of labor available to him against the return they provide. Otherwise the creation of social relationships as a form of labor recruitment can ultimately create obligations which outstrip the ability of the individual to repay.

Contractual labor paid either in cash or in kind is another form of labor recruitment available to the household head. Fonseca (1974: 96) found in Chaupiwaranga in the central highlands of Peru that peasants who have little land will enter into contractual arrangements paid in kind in order to get needed foodstuffs. They do not ordinarily seek out wage labor opportunities unless there is a strong need for a manufactured item that must be purchased. A household head prefers this kind of labor during harvest when he can use a surplus as payment. Fonseca argues that this kind of exchange tends to redistribute surpluses and equalize distribution of surpluses from different ecological zones.

There are indications that recruitment of wage labor is not common in Andean communities (Mayer and Zamalloa 1974). Some reasons are perhaps obvious: cash is scarce in a subsistence economy; peasants are not accustomed to the intricacies of purchasing one's staples on the market and prefer to be paid in kind; and it is questionable whether wage labor is as efficient as reciprocal labor. A less obvious reason is the relation between wage labor recruitment and stratification. The mestizo stratum of rural communities is most often associated with the recruitment of wage labor. This grouping acts as an intermediary between the indigenous population and the larger "national"

society (Fuenzalida 1970: 66-70). Depending on the micro-regional context, this group may be referred to as cholo, mestizo, misti, and a number of other terms. Mestizos are tied in to the cash economy and are thus in a better position to pay labor. They do not ordinarily enter into the affairs of the local community, however, except on opportunistic occasions such as the recruitment of labor, or in political manuevering (Guillet 1975). They ordinarily do not abide by the norms, including reciprocity, governing the behavior of members of peasant communities, and thus are not in a position to recruit efficient reciprocal labor. Even if they could, their superordinate position in the local stratification system would preclude their working alongside a subsistence peasant.

The pervasiveness of reciprocal labor has led to a persistent misinterpretation of the nature of the Andean peasant economy. It has been interpreted by writers ranging from the "Indianistas" of the early 20th. century to the contemporary planners of the agrarian reform as based on a social matrix of cooperation and an economic base of collectivism. Our analysis points out that the household is primordial in the peasant economy and is the preferred unit for land use, labor recruitment, and production for consumption. Reciprocal labor is the most efficient mechanism through which the household head is able to meet his extraordinary labor needs during the agricultural cycle.

There is evidence that the Chayanov model would be particularly appropriate for the analysis of Andean household production decisions. First, peasant households operate family farms in which the labor of the household is exploited as a given. Second, there is data to suggest that "target" notions are at work in the production calculus of each household.

One important notion of subsistence is in the continued use of the term topo as a measurement of land. This term has been found through ethnohistorical investigation (Rostworski de Diez Canseco, 1962) to refer to the amount of land considered to meet the subsistence needs of the household. Contrary to the efforts of Colonial and Republican authorities, the amount could not be quantified absolutely, but varied according to the size of the household, the quality of land, and its location in one of several micro-ecological zones. The same author suggests further that there was a fixed quantity of chicha, the fermented corn beverage, that was set for daily use, in fiestas, and ritual libation. This accords with at least one contemporary use of chicha, in the hurk'a, which is a fixed quantity of chicha, as well as coca, rum, and cigarettes, that is consumed during the morning and afternoon break from work in the fields. Thus, while we cannot be absolutely certain of contemporary "ethno" notions of subsistence, there is both observational and ethnohistorical data to suggest that such notions exist.

In our model of the Andean peasant economy a major sphere of production lies at the household level. In meeting the needs of his household the head strives for an optimum allocation of the inputs at his disposal, namely land and labor, throughout the agricultural cycle. While his subsistence targets may be relatively low, he nevertheless expends considerable amounts of time and effort in meeting them. One major constraint on his production strategies is the necessity of producing a mix of crops in each of the locally relevant ecological zones. Ideally, the household would have access to land in each of these zones and sufficient labor to meet its needs. Seldom do we find such an ideal situation, however, and in fact there is usually a considerable maldistribution of land. The peasant's solution is to create a flexible fabric of social relations which

can be utilized to gain access to strategically placed land and labor when needs occur. We do not find inflexible social arrangements, such as unilineal descent groups, which bind one to a specific set of resources. A price is paid, however, by the requirements of flexibility. This price is the time, labor, cash, and kind, which must be expended to establish and maintain social relations. The peasant is not unaware of this and is constantly weighing the costs and benefits of these social relations of production.

## The Supra-Household Sphere of Production

Most analyses of peasant production stop after having presented the production strategies of a set of households and their cumulative effects as revealed in aggregated macro-economic data (Chayanov 1966; Franklin 1969; Lipton 1968; Schultz 1964). Where this approach prevails, variations in cumulative production patterns are a result of variations in the state of certain key variables in the household, in particular, the composition of the work force, the nature and area of the land at the disposal of the household, and its particular stage in the domestic cycle.

Such a view tends to isolate the household from the socio-cultural matrix in which it is, in reality, inextricably enmeshed. As a result, there has built up around the household production unit qua peasant economy a set of assumptions which are either misleading or incorrect. They include: the peasant household is a self-contained production unit oriented to the present, responding to subsistence levels which it sets, and acting alone to allocate production factors as changing external constraints require. I would like to suggest that such a view of production is myopic in that it ignores economic processes which operate at the level of a collectivity of peasant households. The remainder of this section will expand on this theme with reference to the Central Andes of Peru

The ability of the household to meet short term subsistence needs depends on the availability over time of an adequate supply of factors of production. There are a number of constraints, however, which can threaten household economic security. Several of these are outside the ability of the individual household, through its personal network of kinsmen, friends, neighbors, and fictive kinsmen, to control, and point toward responses of a collective nature. These constraints include the following:

1. Certain technological inputs into the household production calculus require very large inputs of labor, as well as coordination, and often specialization, in their construction and maintenance.

2. Factor proportionality, of land, labor, and technological inputs, is essential for the short term production goals of individual households. Within certain limits, the individual household is capable of adjusting for shortages in one factor. Indirect usufruct alleviates the problem of variations in land distribution and labor exchange between households in a common means of meeting labor requirements during peak periods of the agricultural cycle. Over the long term, however, major adjustments must be made to significant transformations in the factor mix. Demographic trends and their effect on the man/land ratio is a case in point. The population curve for the Central Andes, reflects, in general, a steep drop immediately following Contact, followed by a slower decline to a low point in the mid-eighteenth, and a slow recovery since then (Smith 1970). The introduction of improved

health and sanitation practices in this century has reduced the infant mortality rate causing rapid and sustained growth. Such growth has put tremendous pressure on the land base of contemporary peasant communities.

3. Conflicting demands on time and labor must be scheduled and coordinated among the collectivity of households.

4. Land and certain technological factors such as terracing, irrigation systems, and other earth works are resources which must be renewed unless they are to degenerate and threaten the resource base of the individual household. In order to maintain these in a productive state, a system of rules regarding their use is required. These rules must be tailored to the local ecological setting, agreed on, and enforced by some set of sanctions, formal or informal.

5. Land in the Central Andes has been the object of pressures in the larger society to alienate it from local control. In order to maintain, let alone, expand, the land base of the household, an active and defensive posture must be maintained. One of the key sources of power, in this regard, has been action of a legal and extra-legal nature by collectivities of peasants.

Each of these constraints, the ethnographic and historical literature suggests, poses a constant threat to the long term survival of the individual household. Responses to each, however, must come from collectivities of households since they are outside the

control of the individual household. The first place to look for such responses is in that field of collective behavior which includes the political process and its ritual structure.

## Ritual and the Supra-Household

One of the more pervasive features of Andean rural life is the ubiquitous fiesta complex (Martinez 1959; Mangin 1961). The fiesta complex covers a wide range of ritual activity including a secular component of socializing, dancing, and the partaking of ritual accompaniments of food and drink and often a religious component taken from Catholic practices such as the celebration of a mass, the procession, and special individual rights. Following the suggestion of Dewey (1970), the fiesta complex can be classified into two types of ritual activity: (1) egocentered ritual marking important life crises of an individual such as birth, the first communion, marriage, and death, and (2) group-centered ritual honoring and expressing community identity.

Group centered ritual both celebrates specific observances of the Catholic religious calendar and acknowledges the major sequences of the agricultural calendar. The number of agricultural rituals that have been noted is large, including: rituals associated with the potato harvest (Vivanco Flores 1971; Choqueccahua 1971); the maize harvest (Antonio Manya 1971; Mayta Medina 1971); the provision of rain (Cuba de Nordt 1971); cleaning of the irrigation system (Isbell 1974; Mitchell 1976), and several rite associated with domesticated animals (Merelle-Lucette Roy 1971; Delgado Urquizo 1971; Cuba de Nordt 1971).

One ecological constraint that has been used (Flannery 1972) to predict social organization and social relationships is "scheduling". Scheduling involves the periodic decisions relating to collective allocations of time and labor. In the Andes, Catholic feast days are selectively incorporated into the fiesta complex to the degree that they overlap with major events in the agricultural cycle. Fonseca (1974: 99) documents the organization by community officials in central Peru of an annual ritual which is a signal to begin the maize seeding period and coincides with the Catholic saint day of the Virgin of Rosalio. The maize seeding period is closed with a similar ritual on another important Catholic feast day, Todos Santos. The use of feast days as agricultural markers is found in other communities in the region in which Fonseca worked (Fonseca 1974: 101-102). In Maras, in the southern highlands of Peru, the fiesta of the cross is a symbol of protection and abundance and marks the beginning and end of the maize cycle (Osvaldo Urbano 1974: 44-45). In this community, the fiesta further indicates a control over factors of production in that it recruits from and legitimizes the households that are granted water rights for the coming year (Osvaldo Urbano 1974: 45).

Ego-centered fiestas tend to be private, recruiting participants from an intimate circle of relatives, friends, and fictive kin. They are an important mechanism through which the larger community recognizes and accommodates to the role changes of an individual. From a different perspective, they are important as staging grounds for the recruiting of social relations for economic ends.

Group-centered fiestas, on the other hand, tend to recruit participants from among all of the residents of a community. As in other group-centered rituals such as the Javanese slametan studied by Geertz (1957), they express and reinforce community

identity. In the fiesta, relationships can be created and renewed, tensions released in a relaxed atmosphere, a forum provided for the socialization of children into correct ritual behavior, and opportunities created for courtship and occasional sexual encounters. Through participation in group-centered fiestas, an individual encounters an opportunity to resolve conflicts that have arisen on a day-to-day basis, and symbolically reassert an ideal of harmony with the interests of his community.

In both types of fiestas, sponsorship of ritual components plays an important role; in private, ego-centered fiestas, individuals sponsor other individuals, thus creating formal fictive ties of compadrazgo that last the lifetime of the individuals involved. Public fiestas involve a qualitatively different form of ritual sponsorship. They provide a core element of the socio-political organization of Andean rural communities through the mechanism of rotation and selection of individual sponsors of fiesta ritual. As in Mesoamerica (Cancian 1965), this mechanism, referred to as the alferado, envarado, or mayordomo system in the Andean literature, directly feeds into the socio-political organization of Andean communities in that sponsors of fiesta ritual alternate with political office holding (Fuenzalida 1967-68). Through the public fiesta complex, peasants control recruitment to local political office by requiring identification with community norms through ritual participation and the ceremonial expenditures of ritual sponsorship.

The fiesta complex is a "control" mechanism, to use Flannery's term (1972), which acts to process information concerning the distribution of land, the scheduling of agricultural tasks, and the coordination of conflicting demands on labor utilization.

Further, through ceremonial expenditures it becomes a leveling mechanism, or a "social or religious institution(s) which pick up information on inequalities in landholding, wealth, or power and regulates these variables before they exceed the goal ranges of egalitarian society" (Flannery 1972: 414).

Is the fiesta complex successful in its role as a leveling mechanism? Cancian's work (1965; 1974) on the cargo system of the Mesoamerican village of Zinacantan suggests strongly that it does not eliminate stratification. Comparable studies for Andean cargo systems and their relation to stratification do not exist, but what is interesting is that there is an amazing tendency for the fiesta complex, when stressed, to readapt itself through transformation, changes in ritual content, or adjustments made to the ceremonial expenditure overhead (Isbell 1971; Guillet 1974; Degregori and Golte 1973: 17-19).

## Economic Processes and the Supra-Household

A much more direct mechanism for regulating resource distribution than the fiesta complex is the annual redistribution of land found in many contemporary communities (Malengreau 1972: 4; Degregori and Golte 1973: 13-14; Fonseca 1974: 107). In essence, a local official presides over a meeting of household heads at the start of the agricultural cycle. His responsibility is to identify land vacated due to death or out-migration leaving no cultivator. Such land is then redistributed to a new household or a household having no land in the particular zone.

Redistribution of land is a practice with roots in pre-Incan society. In pristine form, all land was controlled by the community and given to individual households

in usufruct. Since Contact, a variety of factors have weakened the redistributive mechanism. Land has been "privitized" in many instances, allowing it to be bought or sold on the open market. Causes of this process are usually attributed to comoditization of communal land and its subsequent alienation by market forces. Legal protection of communal lands has often been lacking. A further degeneration of the redistributive mechanism in those communities where it continues to be practiced is the accumulation by individual households of considerable quantities of land due to a failure of the community to regain control following death or out migration (Mishkin 1964). Accumulation of land leads to economic stratification and tension between land rich and land poor especially in relation to the increase in population in this century. The use of indirect usufruct practices by migrants to maintain control over their land in their communities of origin became so flagrant in Peru that it resulted in a clause in the 1969 agrarian reform law prohibiting indirect usufruct (Guillet 1976a).

When we examine the ethnographic literature we find that often land use practices at the supra-household level will vary in relation to vertical zonation. Similar variation in the use of production factors is found at the household level and reflects the peculiar nature of the Andean ecology. In general, communal control, individual usufruct, and redistribution are found primarily in the higher sectorially fallowed zones, while private ownership and control tends to occur at the lower altitudes in irrigated land (Degregori and Golte 1973: 13-22). Reasons for this pattern are complex. The lower zones are best suited, especially with irrigation, for the cultivation of cash crops oriented to urban centers. Fuenzalida documents the privitization of land in Huayruropampa dating from the beginning of this century when the community began to grow

maize for the urban center of Chancay on Peru's central coast. Similarly, onions, a crop destined for sale, were first introduced on the fertile, irrigated, bottomlands of the Pampa de Anta, a region in the Department of Cuzco (Guillet 1976b).

Privitization has not generally affected the higher cultivable reaches of peasant communities. These zones are cultivated in a sectorial-fallowing sequence in which domestic animals are allowed to pasture in sections left to fallow. As Custred comments, concerning one particular area where sectorial fallowing is practiced: "the ecological cycle of soil-plant-animal.. is a necessary feature of the lower puna ecotype thereby making cultivation and herding inseparable aspects of lower puna peasant subsistence" (Custred 1973: 38). This fact lies behind the observation of Fuenzalida that the major obstacle to the privitization of sectorial fallowing lands is the fear that this will restrain access to pasture (Fuenzalida 1968: 94-95). Mitchell has argued (1974: 9-10) in a similar vein that, in the community he studied, the long fallow period allowed the growth of wild grasses, shrubs, and underbrush. It followed that "the real meaning of communal tenure is not that everyone can cultivate here but that the entire community has the right to use these wild products. People from the montane savannah can thus exploit the terrain for firewood, herbs and other materials, even though they have cultivation rights. The person with cultivation rights cannot prohibit this use of the land". Perhaps the basic reason for the variation is land use among the various altitudinal zones stems from the fragility of the higher zones. Lower zones, which do not require a fallow or rotation cycle are allowed to be bought and sold on the open market; while higher zones if alienated from community control and the effect of formal and informal sanction,

would be subject to detrimental practices such as over-grazing, reforestation, or disregard for the sectorial fallowing cycle, any one of which would endanger the regenerative and cyclical aspects of high altitude agriculture.

When we examine the redistributive mechanisms as well as other economic processes of the supra-household to be described below, we find usually a set of local officials with authority to make economic decisions, delegated to them by the collectivity of households. They are at base political officials inasmuch as they succeed to office through the political process and ultimately its structural underpinnings in the cargo system. But their duties often bring them into the economic sphere, and their performance is evaluated more closely here than in their more overtly "political" responsibilities. They are expected to exercise their authority in such a way that resources are distributed fairly throughout the collectivity of households and that the crucial ecological parameters of the resource are maintained. If these essentially economic principles are met, then considerable leeway is allowed them in other behavioral aspects of their role. As an example, in a community in southern Peru, a local official incurred a serious challenge to his authority when he broke the rules of the rotation sequence during the annual redistribution by allowing peasants to clear land in a sector of a sectorial fallowing system that was to have lain fallow that year. This charge surfaced as a major issue despite the individual's breaking of a number of rules regulating the political process (Guillet 1975).

The role of local officials can be contrasted with that of a second constituent of the supra-household; the assembly. The assembly is not simply a meeting of the

collectivity of household heads called by local officials on regularly scheduled days or as the occasion arises. A number of topics can take up the time of an assembly; for our purposes, the more important are those which involve the state of the resource base upon which the individual households depend. The assembly thus provides a forum for the discussion of issues such as the scheduling of agricultural tasks; the construction and maintenance of technological inputs into the household production calculus, such as irrigation, terracing, road construction and maintenance, etc.; the delineation of ecologically sound agricultural practices which do not degenerate the resource base; and the discussion of innovations with respect to their social, political, and economic effects, on the collectivity of households. It is most important to realize that these discussions are face-to-face and strongly oriented to solutions involving a consensus of the individuals present. Individuals are not necessarily "equal" in their contribution to the resolution of an issue: assemblies are usually gerontracies in which the older established male members of the community are numerically over represented and reflect a prestige hierarchy based on achievement in the civil-religious hierarchy. In contrast to the local official delegated authority and the individual household head, the assembly operates on the principles of collective decision making as opposed to individual decision making among the former.

The delegation of authority to local officials allows them to recruit labor for purposes of the supra-household. When a need for considerable amounts of labor is felt, a vote will be taken in an assembly and a faena, or less commonly referred to as republica, will be called. A faena is a work party in which all male household heads are required to contribute their labor for an amount of time specified by the assembly.

Female heads of households do not ordinarily have to contribute labor in person but are encouraged to send one of the male members of the household or contribute in food or drink. This labor is applied to the construction, maintenance, and renewal of technological resources that figure prominently in each household's production calculus. They include roads, earth works, irrigation systems, and similar labor intensive public works, as well as projects in benefit of the community, such as schools, churches, and cemeteries. The faena and republica are custodial forms of labor recruitment, to use Udy's (1959) term. The obligation to participate is based on differentially ascribed power of the local authorities. Sanctions, both formal and informal, compel participation.

Irrigation systems, commonly encountered in Andean communities, are a good example of a response at the supra-household level to constraints on household production. Unlike the "irrigation bureaucracies" found in some societies, the Andean systems are usually small in size and in scale, often confined to a community or adjacent communities. Available reports (Mitchell 1976; Adams 1959: 127) reveal a two level division of responsibilities: individual households maintain branch canals while the main canal is the responsibility of the collectivity of households. Although small in scale, these systems do require considerable labor for their construction and, once in operation, need periodic maintenance, usually cleaning of the canals, and a minimal amount of coordination and administration. Ritual is commonly used to schedule maintenance tasks, and we find the delegation of authority over the system to regular political officials, or a special officer, such as the juez de aguas, or a committee, such as the junta de regantes.

There are indications that the technological constraints associated with irrigation underwrite forms of communal organization. Citing his own work and that of Zuidema and Isbell, Mitchell (1976) traces common forms, such as the barrio division, to the manner in which irrigation is organized. A division into halves, or quarters, may well be necessary as an organizational requirement of Andean irrigation systems as well as other tasks which require the recruitment, sanctioning, coordination, and allocation of custodial labor. In my own work in the Pampa de Anta region of southern Peru I have found community reorganization as a response to population increase and the need to more effectively organize faena labor (Guillet 1975).

There is another area in which the supra-household operates to assure the short term viability of the household. This is in relation to the powerlessness of the peasants in the Andes, and the necessity to maintain an aggressive posture to defend and to retain access to land. Some writers have gone so far as to characterize this as the most important function of the community. Adams (1962: 427-428) says, for example, that peasant communities "are characterized by a defensive action to protect their members from a threat. Insofar as we can tell from ethnohistorical reconstruction, the communities come into being when they are in fact restricted or excluded from access to resources". A survey of peasant communities in the same year that Adams wrote revealed that boundary conflicts over land were their most important problem (Dobyns and Carrasco 1962: 1 - 5).

What are the responses of the supra-household in this regard? One set of activities regards the delineation of the boundaries of land in a community. Mayer (1974: 56) describes an annual meeting of local authorities and household heads to

walk around the boundaries of the community (referred to as the lindero muyuy). In other communities such as Huayopampa in the Chancay Valley of Peru, there is an annual meeting to repair walls and gates which demarcate pasture land, which in this case is land left to fallow. These walls and gates are also coterminous with the various sectors in the sectorial fallowing system. On this day, the date is set in an assembly for the harvest.

The history of man-land relations in the Central Andes is replete with instances of alienation of land by forces in the larger society (C.I.D.A. 1966: 9-18). There are also numerous examples of activities taken by peasant communities to retain access to their land. Historically, there have been isolated and sporadic Indian uprisings, usually termed rebellions, since the beginning of the Colonial period. They were contained through bloody manifestations of force on the part of the landowners or the national military. With the exception of the Tupac Amaru II movement in the late Colonial period, the rebellions have never been thought of as having any real effect on the agrarian base and due to a lack of coordination cannot be characterized as true peasant movement.

Coordinated peasant movements began in the early 1950's in the Cochabamba Valley of Bolivia (Dandler 1969) and led to the agrarian reform law of the MNR govern ment in 1952. The first evidence of a peasant movement in Peru occurred in the late 1950's in the Convencion Valley of the Department of Cuzco. The land issue has been the major motivating factor behind the numerous land invasions by peasants in Peru, which reached a high point in 1963 when in the Department of Cuzco alone, 114 haciendas were invaded and held by peasants (Maclean y Estenos 1965: 135).

In the majority of the cases reported in the literature, the goals have been specific: getting back land which peasants claimed through old colonial titles, or repossessing land which had been encroached upon by haciendas. But a characteristic of the land goals of the peasant movement has been their conservative nature. One does not find a revolutionary goal of remodeling society but rather of protecting or attempting to take back traditional land holdings. While, certainly, land redistribution can have major impact upon the structure of rural society, societal reordering does not emerge as the primary goal of peasants. This conservative nature has at times conflicted with the misunderstood and illusive goals of the ideological interest groups working with peasants (Anibal Quijano 1965: 45-46).

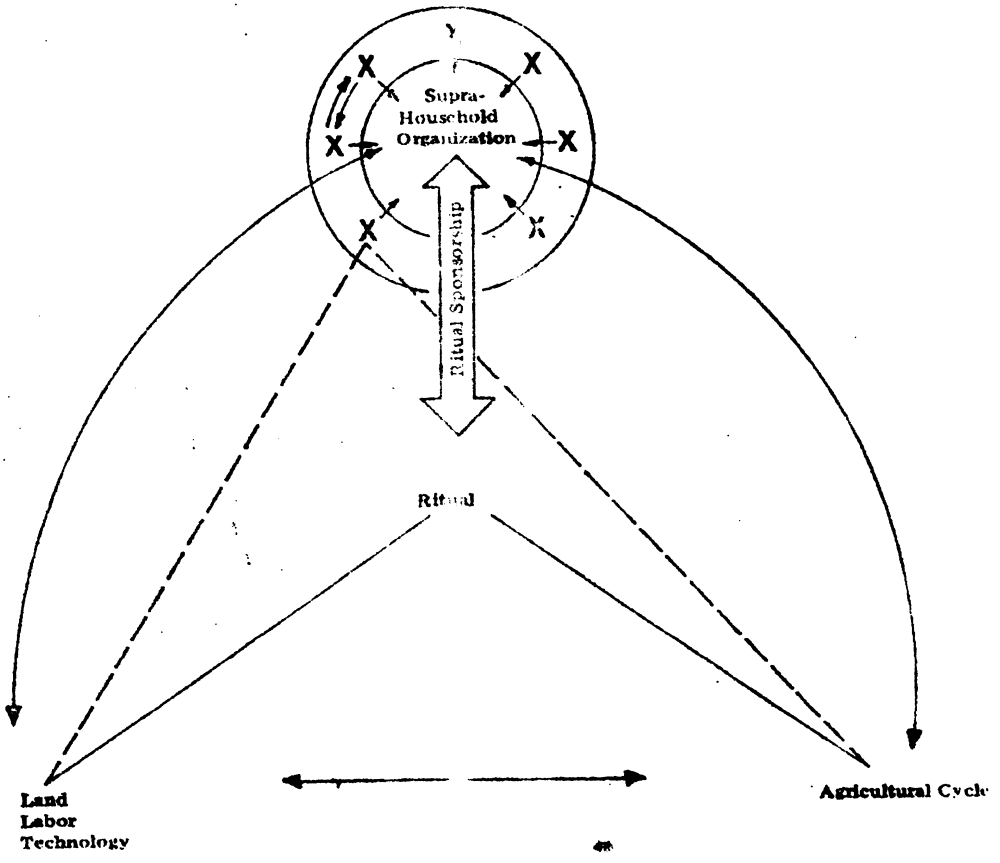
Violence or threat of violence is perhaps one of the most common forms of redress available to peasants in the Andean countries. Negotiated settlement of issues involving land is much less common, although it does occur occasionally in the form of purchase of hacienda land by peasant communities (Matos Mar 1964; C.I.D.A. 1966: 122-123). However, it will become more frequent in Peru where agrarian reform is motivating hacienda owners to divest themselves of their land.

Use of legal channels is a less common means through which the supra-household may elect to defend or maintain access to land. There are two documented cases from the Peruvian coast with illustrate the process. The first (Faron 1960) involves a group of peasants who decided to petition for legal recognition as an "indigenous community". The land they had traditionally farmed had become more valuable as a result of the spread of cotton cultivation. As a result, some of the land had been usurped by haciendas. Formal recognition, they believed, enhanced the possibility of regaining the land,

since under Peruvian law recognition guaranteed legal status to the peasant's claims based on boundary surveys and documents bearing on the relation between the original asiento de indigenas and adjacent haciendas (Faron 1960: 443). In another instance (Keatinge 1973), the dormant political organization of a peasant community revitalized itself in line with provisions of the agrarian reform law of 1969. The goal was to retain access to land that had been threatened by clauses in the law. While the community had been recognized as an indigenous community under the provisions of an earlier law, it was reorganized under a new law regulating peasant communities (cominidad campesina). The tendency to privitization of land prior to the agrarian reform was halted and community jurisdiction over the free disposal of land was re-established and accepted by those already in possession of land and those who desired to obtain usufruct to a plot.

We can summarize the preceding argument to this point as follows. The Andean peasant economy can be understood by reference to two spheres of production: the household and the supra-household. The relationships between the two are illustrated in the following diagram.

The supra-household arises as a response to constraints on household production requiring collective processes. The principles through which the supra-household acts include redistribution, equality of opportunity, and renewal of resources. Through the supra-household, land, water, pasture, and collecting rights are allocated to individual households, agricultural tasks and labor utilization are scheduled and coordinated, essential technological inputs into household production are created and maintained, and




ORGANIZATION OF PRODUCTION IN THE

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individual households are defended by collective action against threats of encroasion by outside forces. In return each household is expected to supply labor when called upon, serve in the cargo system, provide support for local officials, report for battles over land disputes, and contribute in cash or kind when asked. Where size and scale of operations becomes a constraint, the supra-household will organize the collectivity to meet administrative requirements. The relationship between the household and the supra-household is thus based on a set of mutual reciprocal expectations (Malengeau 1972: 6; Mayer 1974: 55). These mutual expectations are at the core of the Andean peasant economy. Historical studies of Andean communities (Celestino 1972; Degregori and Golte 1973) reveal that when significant gaps exist between expectation and reality, then stress and conflict enter into community life. These gaps came about by the same processes, the impingement of outside forces on the peasant community and population growth, which have created tension and conflict throughout agrarian societies (Wolf 1969).

## The Supra-Household Sphere of Production

We have seen how the need for land or labor will lead to social relations between households that are relatively flexible, ad hoc, and impermanent. The characteristics of these relationships flows from the ecological constraints on the short term productive decisions of peasant households.

Peasant households are often found grouped together in some more inclusive kind of social unit. This unit is usually referred to as the community, although in the Central Andes it may have a number of empirical referents depending on legal, political, administrative, and census practices in each country.

The social matrix of the Andean community, as in Latin America in general, is a subject of some controversy. In the writings of the "Indianista" writers, the community development literature, and the community study school of sociology and anthropology, it is seen as a cohesive, "natural" social unit, with a set of characteristics leading to its perpetuation in the face of threats from the larger society. It represents a storehouse of energy that can be tapped for development and fosters social relationships that are cooperative, helpful, generous, warm, and "boy scout like" (Adams 1962: 409-410). This view of the community has been attacked by Adams (1962) who suggested a provocative direction to follow in explaining the basis of the social relations of the community:

> In short... for the purposes of development, the aggregate of peoples that has been called a "community" must be seen as an ecological reality. No social relational autonomy can be assumed for such populations. The cultural continuity that Redfield described can be altered rapidly and drastically by changes in the environment. Where change seems to be slow in one of these populations, it very likely is due to the fact that the environment is changing slowly (Adams 1962: 427).

Besides the cooperative character of its social relations, other features have been associated with the Andean community. It has been described as endogamous, possessing a corporate land holding structure, in collective definition and defense of its borders, and having a specific juridical status set out in national legislation.

Unfortunaltely Adams' suggestion, to understand the "comunity" in relation to its ecological setting, has not been followed in later research. Instead, we find recurring attempts to fit Andean communities into one of the various typologies of peasant communities ranging from the open-closed continum of Wolf (1957) to the debate over whether the social relations of Andean communities are cooperative or conflict ridden (Whyte 1975). The efforts of typologizing the Andean community are a reflection of a larger "felt need" in anthropology to arrive at some general set of traits which characterize all peasant communities, a view which stems from the priginal Redfield-Lewis debate, and which becomes necessary in order to use the micro-macrocosm analogy in the community study school of anthropology and sociology.

One of the best illustrations of the difficulties of fitting Andean communities into typologies is the open and closed continum of Wolf (1957). Based largely on work in Mesoamerica, an area with many ecological and cultural similarities to the Andes, Wolf constructed a continum containing two polar opposites, the closed and open comunity. Closed communities have corporate land holding structures, retain jurisdiction over free disposal of land, and are strongly opposed to outside contact. Open communities, on the other hand, free land to be bought and sold as commodities and are in continuous interaction with the larger society.

Keatinge (1973) has attacked the open-closed continum using data from a Peruvian coastal community. Prior to the 1969 agrarian reform, the community was quite "open" in terms of the prevalence of private ownership of land rented to tenants, a varied occupational structure, and obvious social interaction with a regional urban center.

When the 1969 agragian reform was decreed, it contained clauses threatening land owners with expropritation and the distribution of their land to tenants. The response was to collectively reorganize into a corporate land holding structure, which had existed at one time in the community, in order to protect land rights through a separate set of laws regulating "recognized" peasant communities.

Keatinge's point, that there is no contradiction in a peasant community possessing both a corporate land holding structure and "open" social interaction, is consistent with what has been said up until now about the Andean supra-household sphere of production. In essence, corporateness, custodial labor recruitment, community endogamy or exogamy, political "recognition", etc., are tools which the supra-household uses to optimize the short term survival and security of the individual households. A corporate structure, under contemporary Peruvian legislation, is a means of consolidating power to retain control over land under external threat. It can also be effective in maintaining control within the community over sectorially fallowed land that would degenerate if rules regarding its exploitation were not followed.

Given the nature of the activities of the supra-household presented in the preceding section, is it possible to generalize about its social matrix? It seems clear that patterns do emerge, but they should be understood as tendencies, subject to the nature of production and the local ecological setting. Here it is appropriate to employ the language provided by Wolf (1966) in his analysis of peasant coalitions. First, the supra-household, which draws upon a collectivity of individual households, tends to by polyadic,

and, further, multistranded in that there are a number of overlapping interests, territorial, political, ritual, etc., which bind the households together. Wolf makes a distinction based on the equality---horizontal---or differences---vertical---in the life chances of individuals making up the coalition. Foster has modified Wolf's distinction to focus on "differences in power or authority within the context of the functioning of the group" (1975: 335), which highlights the structure of the social relations of a coalition. The delegation of authority to local officials who act in behalf of the supra-household would thus render it a vertical coalition, following Foster. Lastly, it is a long term rather than a short term coalition.

Wolf's analysis of peasant coalitions is based on their response to pressures emanating from within the peasantry itself and emerging from out of the larger society. The latter set of pressures has been particularly important, according to Wolf, in creating peasant coalitions similar to that described in this paper. Mesoamerican and Javanese closed corporate communities are thus "children of conquest" while the mir emerged in the internal colonialism of early 19th century Russia. A similar theme can be found in the work of Smith (1976) and Forman and Riegelhaupt (1970) who trace changes in production, and implicitly, its social matrix, to the evolution and structure of marketing systems.

Extra-societal forces have been instrumental in the form peasant coalitions in the Central Andes take today as Fernando Fuenzalida (1967-68) has shown. However, the argument of this paper is that to fully understand these forms and their variations it is essential to look for roots in the local production processes operating within local

ecological settings. Such a perspective should reveal the presence or absence of constraints on production at the household level which require collective responses along with the long term strategy selected by the supra-household in exploiting its local ecological setting.

Brush (1974) has isolated three "vertical" long term production strategies of Andean communities upon which we can suggest possible socio-political correlates, following the mode of analysis in this paper. In the compact form, where the long term strategy is based on obtaining a mix of products from among the locally relevant ecological zones within a community, we would expect a tendency toward "corporateness", manifested by definition and defense of borders, community exogamy, restriction of membership, the seeking of protective juridical status, and the like. Internally, we would expect a flexible social organization based on ad hoc dyadic relationships used to obtain access to land, labor, and other resources. In the archipelago pattern, control over dispersed ecological zones is maintained either at the household or the supra-household level. In the latter case, exogamy and preferential marriage rules would assist in cementing the relations with a distant colony. One demographic practice that might be explored in this regard is the fissioning of Andean communities and the creation of annexes which are often given juridico-political status under that term. It may well be the case that this process is the outcome of the archipelago strategy of the supra-household.

In the extended pattern, communities are found in the larger valleys in a dispersed settlement pattern. Each community tends to specialize in one of the products

of a local ecological zone and obtain products of other zones through exchange. Social relations in these communities will tend to reflect the ecological constraints of the zone which is exploited.

In all cases, the resulting complex set of adaptations will be closely tailored to the characteristics of the ecological zones exploited by the collectivity. Sectorially fallowed high altitude land will require collective control and individual usufruct while irrigated land may be associated with private ownership. A community with a "compact" long term strategy may thus display two quite distinct exploitation patterns, while the "extended" strategy may result in a single pattern closely tailored to the specific zone which is being exploited. In any event, social relations at the community level will reflect the ecological constraints of production rather than exist as a given, as has been assumed for peasant communities in Latin America (Adams 1962: 409-10).

# THE NORTHERN ANDEAN HIGHLANDS AND LOWLANDS OF ECUADOR

# THE NORTHERN ANDEAN HIGHLANDS AND LOWLANDS OF ECUADOR *

## The Ecological Setting

The Andes mountains separate in Ecuador into an Eastern and a Western Cordillera. Topographically, they present a north-south "ladder" with massive nudos, or knots, forming the rungs. These nudos tend to isolate ten intermont basins ranging in altitude from 2,100 m. to 3,000 m. There is considerable variation in fertility and soil quality among the basins. For example, many of them are filled with volcanic ash from the 30 active volcanos. These include the basins of Ibarra, Latacunga, and Riobamba. This ash produces an extremely porous soil subject to severe erosion. On the other hand, the Quito and Cuenca basins are very fertile and support a dense population based on the intense cultivation of the surrounding land. The southern regions of Oña, Loja, and Zaruma are located in wide flat valleys with rich soils, although isolated by topographical features from the rest of the country.

Numerous rivers flow through these basins and cut deep gorges through the bordering mountain walls. Some flow eventually into the Amazon while others empty into the Pacific. They open the highlands to cultural influences from both the west and the upper Amazon.

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* There are sufficient historical, ecological, and social distinctions between the coastal and highland regions of Ecuador to warrant their separate treatment. This could not be done, however, because of a lack of information on production organization among small scale peasants in the lowlands. The two regions are discussed together in this chapter with significant differences noted where possible.

Most of the Ecuadorian coast misses the dessicating effects of the Humboldt current, with the exception of the Peninsula of Santa Elena in Manabí Province. The main variable affecting the ecology is the annual quantity and periodicity of rainfall. In the north a double rainy season with high indices of annual rainfall produces a similiar ecological setting to the Pacific coast of Colombia: a dense tropical forest which is inhabited only at the mouths and on the littorals of the rivers. As one moves south into the provinces of Esmeraldas, Manabí and Guaylas, rainfall decreases to a single rainy season from December to July and the flora corresponds to savannah and scrub forest. The topography is broken by a string of hills running East-West.

Aboriginal Cultural Development

It is difficult to reconstruct aboriginal cultural development in Ecuador at the time of the Spanish intrusion because of the intense but brief Incan occupation and the dramatic changes in the existing cultures it engendered combined with the lack of an attempt by the Spanish to distinguish between Incan and pre-Incan socio-cultural elements. The picture that emerges is that of a general Andean cultural type with perhaps more in common with the Central Andes of Peru and Bolivia than the Northern Andes of Colombia. Basic subsistence was derived from the cultivation of maize, beans, potato, squash, and quinoa; there may well have been an ayllu pattern as found in the Andean core area, although there is evidence for individual ownership and inheritance of land. The similiarities in many other spheres between the Ecuadorians and their neighbors to the south are great. The main exception is that political development remained at a

level of loose confederations of villages ruled by chiefs, in some instances under the authority of a king. The state did not exist in Ecuador prior to the Inca Conquest.

In the highlands, Indian tribes coalesced around five major confederations: the Cara in what is today Imbabura and northern Pichincha Province; the Panzaleo, in Pichincha, Cotopaxi, Tungurahua Provinces; the Puruhá, in Chimborazo and Bolivar Province; the Cañari, a large group found throughout the southern Ecuadorian highlands and transition zone of the Western rim of the Cordillera; and the Palta, located in Loja Province, extending as far south as Jáen, Peru. The residents of these basins were sedentary agriculturalists who lived on the floor of the valleys and away from the higher páramo zones. Their settlements were dispersed, but they gathered together periodically to honor a ceremonial figure and thus legitimize the largely sacred authority of the chiefs and/or kings who ruled on their behalf. Power was usually inherited, but stratification was only incipient. Rank differences best describe the social structure.

The Western lowlands are divided into two aboriginal cultural areas: the coast proper, and the humid, forested, western edge of the Cordillera. Little is known about the coastal peoples, who were generally ignored by both the Inca and the Spanish, and who died off quickly after the Spanish Conquest. The Esmeralda people lived in the humid rain forest of the lower course of the Esmeralda river, in independent villages, constantly warring with one another, and gained their subsistence from fishing and root gathering. The Manta were a trading people, adept sailors who plied the coast from settlements in which they practiced horticulture and fished. The Huancavilca, in the Guaylas Province combined fishing and horticulture, as did the Puná of the Islands of the same name, and the Tumbez, on the

southern coast of the Gulf of Guayaquil.

In the humid forested western rim of the Cordillera, two groups have survived to the present: the Cayapá, and the Colorado. The Malaba lived on the littorals of the Mataje River of northern Ecuador.

The Inca expansion into Ecuador in the second half of the fifteenth century created enormous changes in these cultures. In many respects similar processes occurred in the Central and Southern Andes resulting in the emergence of a relatively homogeneous cultural substratum throughout the Empire. As elsewhere, the Incas preferred to work through native leaders who were willing to recognize the Inca and to pay tribute. This kept the pre-existing local and regional levels of political organization rather intact. In other cases, however, where local populations refused to bow to the Inca, the existing socio-political organization was destroyed and replaced by mitimaes of loyal Indians from other areas. Many Indians in Chimborazo Province for example were replaced with Quechua and Aymara Indians from Bolivia. New crops, such as yuca, oca, and peanuts, as well as coca consumption, were introduced. Large numbers of llamas and alpacas were brought in, although they never adapted to the páramo zones of Ecuador and Colombia from the Central Andean Puna. Irrigation systems were created and helped to raise production greatly.

## The Evolution of Agrarian Structures

The basic institutions of the Colonial Period, the repartimiento, the encomienda, the mita, and the reducción, produced a configuration of land tenure and political economy that was very similiar in Peru and in Ecuador. The Inca conquest provided a vehicle for the administration of the densely populated highlands and the exaction of tribute. On the coast

the picture is more obscure; cultural development there was not as great as in the highlands, nor were there sufficient resources to attract the interest of the Spanish.

As in Peru, Ecuador experienced a shift in elite origins with Independence but, at least initially, little overall changes occurred in the characteristic stamp of the countryside. One institution did emerge as a result of the need for labor on the haciendas shifting at this time to more intensive cultivation. Indians who resided on community lands encapsulated within haciendas became tied into a debt peonage system called concertaje. This system was based on a labor arrangement in which upon the receipt of a loan of land from a hacienda, an Indian (concierto) was obliged to work a set number of days a week or month for the hacienda. The terms were so arranged that a concierto could never pay off his debt. The continual threat of prison for debt under Ecuadorian law helped to enforce the system. These laws remained in force until 1918. Further, the transmission of debts from father to son tied in effect the concierto to the land.

The concertaje system was replaced by two new arrangements and a separate type of dependent peasantry.

> Two of these, the huasipunguero and the yanapero, corresponded in many respects to the conciertos of the earlier Republican period. The huasipunguero, with little or no land of his own and without other sources of income, worked al least four days per week for the hacendado in return for the use of a small plot of inferior agricultural land called a huasipungo and for a small wage. The huasipunguero and his family also usually took a turn as huasicama, doing such domestic chores as cooking, gathering firewood, taking care of the animals and milking cows on the hacienda. The yanapero, like the huasipunguero, worked a certain number of days per week or month for the hacendado, but for his labors he was permitted the use of firewood, pasture, or water rights on lands of the hacienda rather than the use of agricultural lands. The remaining two major classes or groups of workers are the partidario and jornalero. The partidario, or aparcero, is a sharecropper or part-time worker who contracts to raise and harvest a crop on land provided by another, often an hacienda

> owner. For this labor, the partidario usually receives one-half of the produce. The jornalero is a paid day laborer. Usually the huasipunguero and the yanapero is an Indian, while the partidario and the jornalero most frequently is a mestizo. However, the number of Indians in each of the latter categories is increasing steadily.
>
> Basile 1974:55

Muriel Crespi's study (1968) of a hacienda in Canton Cayambe of Pichincha Province provides us with a good example of the organization and functioning of a highland hacienda. The Hacienda Pesillo originated in a grant made by the Crown to a church in 1560. In the years that followed, the original holding was expanded considerably through a variety of means including donations and purchase. The resulting demand for labor was met through a request to the Crown for mitayo Indians. Although mitayos were, in theory, provided for only short periods, the hacienda gave them small usufruct plots and food and clothes as advance payment for their labor. Mitayos were never able to repay these advances and fell into a classic debt peonage state in which they remained bound to the hacienda. By the end of the 18th. century, virtually all of what is today Canton Cayambe was owned by religious estates, such as Pesillo, with labor obtained through debt peonage. Independence did not change the situation other than by replacing the mitayo with the concierto.

In the latter part of the 19th. century, pressures against the debt peonage system and the immense quantities of land held by the Church came to a head. One result was the passage of the Ley de Beneficencia or Manos Muertas in 1908 which allowed the government to expropriate monastic (but not parish church) property and turn it over to a new agency. Asistencia Social, created for the purpose. Asistencia Social was charged with the administration of the expropriated haciendas, the profits from which would be used

to support a public welfare program. Since Pesillo at that time was owned by a monastic order it was turned over to Asistencia Social, in 1908.

By the time of its transfer, Pesillo was a completely self-sufficient production unit with a complex administrative organization. An Indian "alcalde" acted as a broker in relations between the hacienda and the resident Indian population, which numbered aproximately 600. Production was organized according to the characteristics of the local set of ecological zones. Huasipungueros cultivated a range of subsistence crops contrasting with the more commercial orientation of the hacienda. Maize was not grown by huasipungueros but, rather, obtained in payment from the hacienda or through exchange with Indians from Otavalo.

Another group of Indians, called apegados, lived on the outer fringes of Pesillo. They had arrived during previous periods from surrounding towns and neighboring provinces. Some provided seasonal labor for the hacienda while others were small artisans and craftmen who provided the hacienda with needed goods and services. None received usufruct plots but were nevertheless debt bound because of their inability to repay advance payments made for their goods and services. Often they entered into indirect usufruct arrangements with conciertos and later huasipungueros. Both apegados and conciertos/huasipungueros had to participate in collective work parties organized by the hacienda.

Eventually apegados were successful in obtaining their own settlement within the lands of the hacienda in 1931. Another mobilization occurred in 1936-44 when communist organizers from Cayambe contacted peasants and organized syndicates. It was severely repressed, however, by police and members were run off the hacienda. In 1949 Pesillo was

rented by Asistencia Social to a private firm which began to grow barley oriented to the national beer market.

These tenure classes persisted until the passage of the Agrarian Reform and Colonialization Law in 1964. The effects of this law and another enacted in 1970 will be discussed in a later section.

There are two classes of small scale peasants that are relatively independent from the influence of the hacienda. The first includes artisan workers, usually of indigenous origin. The most well-known example is the weavers of Otavalo. The second includes members of Indian communities. These communities, called communes under Ecuadorian legislation, receive special treatment in which they are encouraged to exploit their land collectively. As will be seen later on, most commune land is exploited on an individual basis, but the important point here is that commune members are relatively independent from exploitative arrangements with haciendas.

## Organization of Production

The Ecuadorian countryside is marked by a glaring distinction between a numerically large sector of peasants farming plots less than 5 has. in size but controlling in mass only a small fraction of the available land surface, and a much smaller latifundio sector which nevertheless controls the bulk of the land. This pattern has held firm over the last few decades although there is some evidence that larger properties are being divided up and the minifundio sector is increasing in number. Evidence for this pattern and trends is presented in the following table.

TABLE 3

Distribution of Agricultural Units by Number and Extension, and by Size Category
Ecuador 1954 - 1968

| Size Groups, in Hectares | 1954 | | | | 1968 | | | |
|---|---|---|---|---|---|---|---|---|
| | No. | % | Has. | % | No. | % | Has. | % |
| less than 5 | 251.686 | 73.1 | 432.200 | 7.2 | 470.347 | 74.3 | 708.574 | 10.3 |
| 5 - 19.9 | 57.650 | 16.7 | 565.800 | 9.4 | 104.755 | 16.6 | 951.887 | 13.7 |
| 20 - 99.9 | 27.742 | 8.1 | 1'138.300 | 19.0 | 48.301 | 7.6 | 1'994.968 | 28.7 |
| 100 - 499.9 | 5.787 | 1.7 | 1'156.300 | 19.3 | 8.467 | 1.3 | 1'647.904 | 23.8 |
| 500 + | 1.369 | 0.4 | 2'706.700 | 45.1 | 1.348 | 0.2 | 1'634.187 | 23.5 |
| TOTAL | 844.324 | 100.0 | 5'999.300 | 100.0 | 633.218 | 100.0 | 6'937.520 | 100.0 |

Source: Table 6, 7; pp. 29-30 (Hurtado 1973); based on 1954 Agricultural Census and 1968 Agricultural Survey

The data on which this table is based come from the 1954 Agricultural Census and the 1968 Agricultural Survey. It must be stressed that there are a number of problems intrinsic to censusing and surveying rural Andean populations, particularly when questions of land are involved. A long tradition of exploitation and the shrinking of the land base of Indian communities, the difficulty of translating local measures into national ones, the lack of adequately trained personnel, among others, are constantly present. Large landowners, on the other hand, are motivated by threats of agrarian reform and taxation to consistently under report the size of their holdings. For these reasons, the following figures should be taken as approximate and at best only illustrative of the patterns and processes they purport to represent.

During the period of 1954 to 1968 the number of agricultural units under five has. in size grew enormously in number, almost doubling. Population growth, the breaking up of large holdings through inheritance and sale, and the fractionalization of smaller holdings through divisible inheritance are some of the primary factors in this trend. The problem of the prevalence of holdings not large enough in size to adequately employ the labor force of the family is apparently growing in Ecuador. On the other hand, agricultural units in the 100-499.9 size range increased slightly in number while latifundia over 500 has. actually decreased. These figures indicate that, by 1968, the percentage of the cultivable land controlled by latifundia had decreased substantially, from 45.1% in 1954 to 23.5% in 1968.

These figures suggest that there is an ongoing process of the break-up of large latifundia associated in part with an increase in the number of small and middle size units.

It would appear that several factors have entered into this process. While an agrarian reform law was passed in 1964, it is doubtful whether it accounts for the bulk of the redistribution (see Hurtado 1973:30). What is more likely is that latifundia are being sold to peasants on an individual basis or through the collective efforts of peasants using a cooperative strategy.

In the first few years following the 1964 Agrarian Reform Law, 15,000 huasipunguero families were granted title to their ex-huasipungo plots in the Sierra. Latifundia in the Sierra are often owned by public institutions with non-agricultural ends, such as government ministeries, the social security agency, schools and universities, Asistencia Social, and the Church. It has been estimated, for example, that Asistencia Social possesses 130,000 has. and the Catholic Church 300,000 has. (Hurtado 1973:31). In general, these properties are rented to individuals who often do not attempt to intensively exploit them. Following the 1964 Agrarian Reform Law, 8 properties of Asistencia Social, located in the Sierra provinces of Imbabura, Chimborazo, and Cañar, and 10 plantations located in the coastal provinces of Guaylas and Los Ríos were affected by the reform. These tended to be commercial enterprises producing cacao and coffee, of which the most important was Tenguel, owned by the United Fruit Company. It has been estimated that these programs affected 150,000 has. (Hurtado 1973:37).

After this initial phase the Agrarian Reform program lost much of its original impetus, due primarily to the lack of political support, in the form of funding and staffing, of IERAC, the agency charged with carrying out the program. Pressure by landowners and the disorganization of peasant interest groups have made agrarian reform a low priority item on the political agenda.

Close analysis of the admittedly limited impact of the agrarian reform reveals regional variations. In the northern provinces of Carchi, Imbabura, Pichincha, and Cotopaxi at the time of the 1964 Agrarian Reform Law, agriculture was being progressively mechanized, and holdings were shifting to cattle raising and dairy operations. As a result there was less need for labor and more of a willingness to liquidate huasipungos. In the southern provinces geography and other factors kept the rural economy stagnant and huasipungos were needed for labor (Costales and Costales 1971:119). The only exception to this pattern was the province of Chimborazo, where large scale erosion, caused directly by deforestation and indirectly by the use of tractors, had radically reduced the value of the land to both hacendado and huasipungo. This pattern is presented in table four.

TABLE 4

Liquidation of Huasipungos, 1964-1967, by Province

| Province | No. of Beneficiaries | Percent | Has. | Percent |
|---|---|---|---|---|
| Northern Provinces | | | | |
| Carchi | 673 | 4.9 | 1273 | 3.2 |
| Cotopaxi | 2326 | 17.0 | 9092 | 22.9 |
| Imbabura | 1025 | 7.6 | 5233 | 13.2 |
| Pichincha | 3706 | 27.0 | 7685 | 19.3 |
| Southern Provinces | | | | |
| Azuay | 1196 | 8.7 | 3399 | 8.5 |
| Bolivar | 196 | 1.4 | 578 | 1.5 |
| Cañar | 655 | 4.8 | 2024 | 5.1 |
| Chimborazo | 3374 | 24.6 | 9684 | 24.4 |
| Tunqurahua | 553 | 4.0 | 796 | 2.0 |
| TOTAL | 13.707 | 100.0 | 39764 | 100.0 |

Source: Derived from Table 8, p.145 (Costales and Costales 1971)

Casagrande and Piper (1969) document some of the changes in haciendas in Chimborazo Province due to the 1964 Agrarian Reform Law. One result is that Indian labor is now fairly costly, or at least, not as dependent and low in cost as under the huasipungo system. This has forced many to mechanize their operations and become entrepreneurs (presumably for the first time). Another tendency is to shift to dairy operations, a business that requires less labor and evades the demands of peak labor need that characterize cereal and potato production. A few hacendados, unwilling or unable to make the requisite changes, have decided to sell their land to independent peasants.

A special situation presented itself in the southernmost Province of Loja, which has yet to be resolved by agrarian reform programs. In this province there is a special form of contractual relationship, called arrimazgo, in which an arrimado obtains usufruct to a parcel of land for which he agrees to work for the hacendado without compensation from 120 to 200 days a year depending on the size and the quality of his parcel and the type of crops he plants. The arrimado is very vulnerable to the whims of the hacendado since he cultivates a plot over which he has no security and cannot transmit usufruct as is the case with the huasipungo contract. It is estimated that around 11,000 arrimados exist, almost all of which are located in Loja Province (Hurtado 1973:33).

Arrimados are considered separately in the 1964 Agrarian Reform Law; in Articles 79 and 80 the burden is left up to the hacendado who is required to turn over 10 percent of his land, or, in haciendas of less than 100 hectares, 10 percent of the value of his property. According to Costales and Costales (1971:106ff.) this clause results in a gross discrimination against arrimados. While they each would theoretically receive a portion of

the ten percent, the law stipulated that the labor requirements which are at the base of arrimazgo contract were to continue (of Costales and Costales 1971:110), unlike the huasipungueros who were freed from labor obligations.

Even when huasipungueros were given title to their plots and freed to allocate their labor as they wished, this did not solve their problems. Huasipungo plots were usually located in the poorer locations within a hacienda, generally in the higher altitudes, which were most susceptible to erosion and had least access to water. Freeing huasipunguero labor from obligations to the hacienda has not always meant that other sources of labor would be available or even that the hacendado would continue to want to use the labor pool of ex-huasipungueros. Mechanization has been proceeding apace, and in those provinces where hacendados were most willing to release huasipungueros, they were least willing to hire them in their new status. The lack of labor alternatives is a continuing source of conflict and tension between haciendas and ex-huasipungos particulary in regions such as Cayambe.

The example of the Hacienda Pesillo indicates the situation that existed on most haciendas prior to the passage of the 1964 Agrarian Reform Law. This hacienda is also an interesting case of an attempt to reorganize it with input from its peasant population. In 1964 Pesillo, along with two other haciendas owned by government agencies, was taken over by IERAC and made the object of a pilot program designed as a model for the results the agrarian reform hoped to achieve. The initial idea was for huasipungueros to remain on their small holdings, while they farmed the ex-hacienda commercial land through a cooperative. Eventually, they would be moved down to the valley bottom and garden and home sites allocated on a household basis. A variety of other forms of technical assistance were offered to help

the peasants in the transition to both large and small scale commercial farming. IERAC was to foot the bill for the land for the first two years, after which time the cooperative would pay off its debts.

The plan did not go as smoothly as intended and there were a number of problems. At first the town people felt threatened and created conflicts with the ex-huasipungueros. Animosity then shifted to government institutions and, particularly, the white authorities running them. This animosity has deep historical roots and was obviously something which was not to disappear quickly. A peasant leader of the Pesillo ex-huasipungueros who had been jailed earlier returned and began to organize the rather amorphous mass into an articulate interest group.

There were two basic issues that concerned the ex-huasipunguero population. The first was the perceived threat that resettlement meant ousting of peasants off the hacienda so that government could exploit the hacienda directly. The second was the fear that individual holdings would be taken away from their owners and merged with cooperative lands. The solution according to the peasants was to divide the entire ex-hacienda up into individual holdings.

IERAC recognized that the original plan had to be scrapped or some major modifications made. Their responses was to abandon mandatory reallocation and to appoint the peasant leader to manage the cooperative. This solution worked fairly well until the fall of 1966, when IERAC claimed part of the harvest as an initial payment on hacienda, in line with the original agreement. Peasants reacted by a general strike. Eventually they went back to work and paid their share of the harvest. By 1970 the cooperative idea was gradually gaining acceptance (Crespi 1971).

The most recent significant action of the Agrarian Reform was the passage of a Law in 1970 prohibiting indirect forms of exploitation. The impetus for this law came from pressure exerted by the Association of Agricultural Cooperatives of the Coast. This organization was formed in 1964 by small-holders of the Guaylas River Basin to defend themselves from repression by landowners (Hurtado and Hurdek 1974:51). In a study carried out in 1967 by the Ministry of Agriculture and the National Rice Commission of small scale producers in the region, it was found that 85 percent of the production occurred on plots of less than 15 cuadras and 92 percent obtained under various forms of indirect usufruct. Peasants did not have access to bank credit and were forced to use local money lenders at interest rates of up to 10 percent a month (Hurtado and Hurdek 1974:50-51).

These data on land distribution patterns and trends do not speak to the question of the quality of the land available to small scale peasants. There is clearly a pattern in the location of land which is an outcome of the historical processes alluded to in preceding sections. The expansion of Sierra latifundia tended to occur in the better lands, usually the fertile basins provided with irrigation water from the rivers and springs. There does not seem to have been expansion of extensive grazing haciendas into the páramo as occurred in Peru due to world demands for wool (Piel 1967). The double rainy season of the Northern Andes does not allow the growth of bunch grass ideal for grazing as found in the Central Andes. At any rate, free Indians were pushed up the sides of the mountains, as well as huasipunguero Indians whose usufruct plots were generally located on the slopes or in virgin land owned by the hacienda. In the latter case, huasipungo labor was used to clear the land, initially for subsistence cultivation, after which it was planted with an improved

pasture grass in the case of dairy operations, or cultivated in a high altitude grain.

An example of the location of huasipungo plots can be found in the situation described by Muriel Crespi on the Hacienda Pesillo in Cayambe Canton of Pichincha Province. In the early 1960's when she studied the hacienda there were three locally recognized ecological zones based on altitude, the alto, the bajío, and the páramo. The best land was the irrigated bajío, excellent for maize cultivation. It was also the land exploited by the hacienda, at that time cultivated in barley oriented to a growing urban market for beer processing. The alto referred to land on the ondulating sides of the mountains. Little water was available and it was essentially a tuber zone. The highest, páramo, zone was only marginally cultivable, at its lowest extent. In the following table the distribution of huasipungos by ecological zone is given.

TABLE 5

Distribution of Huasipungos in Hacienda Pesillo
1968, by Ecological Zone

| Elevation in Meters | Percent | Ecological Zone |
|---|---|---|
| 3.000 - 3.200 | 17 | Bajío |
| 3.200 - 3.300 | 50 | Alto |
| 3.300 - 3.450 | 33 | Alto/al filo del Páramo |

Source: Table 19, p257. Crespi 1968

As can be seen, the majority of the huasipungos were located in the alto zone and in the lower reaches of the páramo. The hacienda tends to push them up and to retain the best lands for its own use. As a result huasipungos could not produce maize, one of the primary staples in the Andean diet. Huasipungueros were thus forced into exchanges and other means to obtain this crucial foodstuff.

The quality of land in the Ecuadorian highlands is reduced considerably by effects of erosion. In many communities, particularly in the southern provinces from Cotopaxi to Loja, vast stretches of eroded and uncultivable land can be seen. Much of this land has been abandoned by peasants who have moved to Quito and the provincial capitals in search of work. A serious drought in 1977 further aggravated the situation. On a lesser scale, erosion takes much of the peasants' land holdings.

There are a number of factors that contribute to erosion of highland lands. The volcanic soil characteristic of many highland basins is extremely susceptible. Introduced technology, such as the plow and oxen and the tractor, while increasing yields on the short term, breaks down the fragile soil structure, allowing it to be washed away. Chakitaclla technology is not common in Ecuador, probable because mountain slopes are not as steep as in Peru. But where chakitaclla technology is found, it tends to ameliorate the effects of erosion (Gade and Ríos 1972). Certainly, population pressure and intensive land use go hand in hand in facilitating detrimental practices.

Responses to erosion are at best long term, labor consuming, and only partial solutions. The major response has been reforestation, carried out by both national institutions, such as the Ecuadorian military, and international institutions, such as the now defunct

Misión Andina. Reforestation is not an ideal program, however, because it often means the relocation of peasants to other rural areas or to the city. Some eroded clay lands in the middle zones can be restored by a laborious process which involves breaking up the impacted clay with crow bars and pick, fertilizing with animal and green manure, and planting with sweet potatoes and peanuts, followed after several years by maize (Beals 1966:67).

Comparative research in alpine environments has revealed that there are two basic adaptive strategies of resident populations. The first involves a singles population which through a mix of agricultural and pastoral activities directly exploits a series of microniches or ecozones at several altitudinal levels. In the second, a population specializes in the agricultural or pastoral activities suitable to a particular zone and establishes trade relationships with others in order to obtain their products (Rhoades and Thompson 1975). As we have ponted out in the section on Peru, Webster discusses three types of ecological adaptation of highland populations to the Central Andes. Another hypothesis is that of Forman (1976:3) who suggests a mixed strategy in which members of a peasant community have direct access to two or more ecozones, combined with indirect access through exchange with communities in other ecozones or through marketing arrangements. This appears to have been the case in Pesillo. Recent research has begun the task of documenting empirical cases of vertical strategies in Ecuador. Steward, Belote, J., and Belote L., (1976) have analyzed the pattern of transhumance by Saraguro Indians to pastures on the eastern slopes which has developed during the last fifty years or so. There are other reports of communities in the southernmost province of Loja, such as Jimbara, colonizing other communities in a manner

reminiscent of the archipelago strategy of Central Peru (Loja: 11). Joseph Casagrande and Frank Salomon have discovered a sixteenth century document which is the earliest evidence of the reliance by highland Indians on crop production in other, lower, ecological zones (Personal communication). Sufficient ethnographic does not yet exist for Ecuador, however, to allow for the construction of typologies such as Webster has done for Peru.

In the next two tables land tenure patterns and trends are given for the Sierra and Coast for the years 1954 and 1968. This period covers the years prior to and after the passage of the 1964 Agrarian Reform Law, but before the 1970 Law prohibiting indirect forms (precarismos) of tenure in agriculture.

In 1954 around 33 percent of the holdings were obtained through indirect forms, with approximately 7.6 percent of this grouping consisting of huasipungo arrangements. In 1968 after the passage of the Agrarian Reform Law, the percentage of indirectly held holdings dropped to around 17 percent. The shift from huasipungo to owner status does not account for all of the reduction of indirect usufruct holdings; significant drop offs in various other kinds of arrangements including service contracts similiar to the huasipungo are shown.

Rent arrangements increased slightly during this period. They do not represent a significant proportion of the total range of indirect usufruct arrangements, however. In general, renting is rather rare in highland Andean regions due to the amount of cash needed and the risk of high altitude agriculture.

On the Coast, indirect forms are of greater importance than in the Sierra, increasing from approximately 30 percent in 1954 to 39 percent in 1968. The 1964 Agrarian Reform Law had virtually no effect in this trend since oncly 0.1 percent of the holdings were obtained

TABLE 6

Number of Holdings and Superficies, by form of land access, 1954 - 1968
Ecuadorian Highlands

| Form of Tenancy | Holdings | | | | Superficie | | | |
|---|---|---|---|---|---|---|---|---|
| | 1954 | | 1968 | | 1954 | | 1968 | |
| | No. | % | No. | % | Has. | % | Has. | % |
| Owner operated | 174.023 | 67.0 | 346.789 | 83.2 | 2'233.200 | 73.9 | 2'180.656 | 76.7 |
| Cash Rent | 8.012 | 3.1 | 18.362 | 4.4 | 341.800 | 11.3 | 279.952 | 9.9 |
| Sharecropper | 12.835 | 5.0 | 23.621 | 5.7 | 54.000 | 1.8 | 62.791 | 2.2 |
| Huasipungueros | 19.665 | 7.6 | - | - | 60.200 | 2.0 | - | - |
| Comuneros | 4.863 | 1.9 | 1.710 | 0.4 | 18.300 | 0.6 | 1.164 | 0.0 |
| Service Tenants and other forms 1/ | 12.829 | 4.9 | 6.570 | 1.6 | 93.100 | 3.1 | 157.495 | 5.6 |
| Mixed forms 2/ | 27.292 | 10.5 | 19.537 | 4.7 | 219.800 | 7.3 | 160.124 | 5.6 |
| TOTAL | 259.569 | 100.0 | 416.589 | 100.0 | 3'020.400 | 100.0 | 2'842.182 | 100.0 |

Source: Table C-2, (Arias 1972)

under huasipungo contracts. The only real reduction in indirect usufruct during this period occurred largely among a residual category made up of service contracts. The major increase occurred in rental arrangements, from 10.6 percent in 1954 to 29.6 percent in 1968. The table does not allow one to detect, other trends reflected in that the Coast was becoming increasingly mechanized and oriented to commercial farming as on the Atlantic coastal plains of Colombia, while small holders particularly in the Guaylas River basin were obtaining access during the period to small rice plots through a variety of indirect means, including rent arrangements. The prevalence of indirect arrangements, combined with a politicized peasantry, eventually led to a law passed in 1970 specifically designed to affect these Coastal indirect arrangements.

An example of the pattern of land use at the local level is found in the accompanying table, based on a survey in three cantons of Pichincha Province. This survey was made following the 1964 Agrarian Reform Law and is a breadkdown of land use among the 86 percent of the sample that had access to land. Owner operated parcels accounted for 57 percent of the total but averaged only 1.53 has. in size, an indication of the extreme to which minifundismo can arrive. In general, most of these holdings were held without privilege of title. Mixed forms of usufruct, including sharecropping alone (3.15 has. average size) and in conjunction with one's own land (4.00 has. average size), increased the total size of holdings, but at the cost of a portion of the harvest. Two categories, ex-huasipungo and owner operated/ex-huasipungo refer to land use forms which emerged out of the 1964 Agrarian Reform Law. The former refers to peasants who became owners of their huasipungo lots under the provisions of the Law. The latter is a

TABLE 7

Number of Holdings and Superficie, by form of land access, 1954 - 1968
Ecuadorian Coast

| Form of Tenancy | Holdings | | | | Superficie | | | |
|---|---|---|---|---|---|---|---|---|
| | 1954 | | 1968 | | 1954 | | 1968 | |
| | No. | % | No. | % | Has. | % | Has. | % |
| Owner Operators | 59.877 | 70.8 | 126.543 | 61.0 | 2'656.200 | 89.2 | 3'239.066 | 87.3 |
| Cash Rent | 9.026 | 10.6 | 61.458 | 29.6 | 84.400 | 2.8 | 311.944 | 8.4 |
| Sharecropper | 451 | 0.5 | 3.010 | 1.5 | 10.700 | 0.4 | 8.125 | 0.2 |
| Huasipungueros | 82 | 0.1 | - | - | 600 | 0.0 | - | - |
| Comuneros | 915 | 1.1 | - | - | 7.400 | 0.2 | - | - |
| Service Tenants and other forms 1/ | 10.954 | 12.9 | 6.239 | 3.0 | 108.900 | 3.7 | 48.047 | 1.3 |
| Mixed forms 2/ | 3.360 | 4.0 | 10.199 | 4.9 | 111.100 | 3.7 | 102.769 | 2.8 |
| TOTAL | 84.665 | 100.0 | 207.449 | 100.0 | 2'979.300 | 100.0 | 3'699.951 | 100.0 |

1/ For 1968 includes: colonos, other simple forms, and unknown tenancy
2/ For 1968 includes: propietario/arrendatario and other mixed forms

Source: Table C-3, Arias 1972

category which, according to Costales and Costales (1971:308), refers to ex-huasipungueros who have gained access to the plots of other ex-huasipungueros through debts, "religious commitments", and other means. The sharecropper category refers to the older arrimados, apegados, and dependientes, various types of peasants who did no receive land, as did the huasipungueros, following the 1964 Agrarian Reform, and who have entered into these arrangements with property holders in order to gain access.

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TABLE 8

Land Use in Three Cantons of Pichincha Province, 1969 a/

| Land Use Type | No. of Families | % | Superficie (has.) | Average Land/Family |
|---|---|---|---|---|
| Owner operated | 3.680 | 57.0 | 5.632.96 | 1.53 |
| Owner operated/rented | 57 | 1.0 | 171.36 | 3.06 |
| Rented | 383 | 6.0 | 1.033.93 | 2.69 |
| Owner operated/ex-huasipunguero | 795 | 12.0 | 2.315.27 | 2.91 |
| Huasipunguero | 71 | 1.0 | 97.60 | 1.37 |
| Ex-huasipunguero | 443 | 7.0 | 1.661.00 | 2.39 |
| Owner operated/Sharecropped | 134 | 2.0 | 656.75 | 4.00 |
| Sharecropped | 407 | 6.0 | 1.283.25 | 3.15 |
| Owner operated with title | 524 | 8.0 | 1.073.81 | 2.04 |
| TOTAL | 6.494 | 100.0 | 13.328.93 | 2.05 |

Source: Table 38, p.306 (Costales and Costales 1971)

a/ See Costales and Costales 1971:259-261, for description of the sample universe.

In very general terms, we can summarize the foregoing data of land tenure as follows. There is a large and growing sector of small scale peasants with access to quantities of land usually considered insufficient to fully employ the labor pool of the household and unable to provide for all its needs. There are indications that a significant segment of this sector is passing to direct owner operated holdings following the impact of the 1964 and 1970 Laws on indirect usufruct practices. In virtually all cases, the quality of land to which the small scale peasant has access is very poor. There are a number of reasons for this: haciendas continue to hold the best land with ex-huasi-pungo plots located on the slopes where soil quiality is lower, water is generally unavailable, fallow is insufficient, and erosion is endemic.

Labor use practices follow a pattern simillar to that found in the Central Andes of Peru. Household labor is preferred among small-scale peasants throughout the country (Costales and Costales 1971:196). There are references in the literature to "lending of hands" (Costales and Costales 1971:196) and to "mutual aid in which an individual works for another individual with the expectation of reciprocity (Burgos 1970:170-171)". The terms which are used to refer to such a reciprocal exchange form are cambio mano (Sp.) and ranti, randi, rantipac (Q.). Detail ethnographic descriptions are lacking however, and my impressions based an interviews are that it is not very common. In Crespi's study of the Hacienda Pesillo, in which she takes pains to describe labor organization, she categorically denies that a pure reciprocal exhange form existed (Crespi 1968: 296).

Crespi found in Pesillo two commons forms of labor recruitment common used by the peasant population: the minga and the ración group.

The minga in Pesillo is a form of festive reciprocal labor in which work is fused with conviviality. Although the host works alongside of the other mingeros, he is involved primarily in the distribution of cigarettes, chicha, and trago throughout the day. His wife, often assisted by the wives of the mingeros, occupies herself with preparing the meals served during the day, and a special evening meal with a main course of cuy, guines pig. Although the work is strenuous, the day passes quickly: "it is ajala they say, an 'enjoyable' day marked by a continuing flow of jokes, conversation and mirth, stimulated no doubt by the company of friends and the potent warmth of alcoholic beverages (Crespi 1968:297)".

Central to the ración group is a payment in kind referred to as a "gift" or ración, as well as the expectations of labor reciprocity. This group is recruited with the goal of sharing labor at harvest, as well as with the provision of supplementary labor during other tasks in the agricultural cycle. It thus tends toward a stable group structure. The main reward comes at harvest, when each worker receives a "gift", ración, from a landowner of between 20 and 90 pounds of grain and 150 to 200 pounds of potatoes. Permission is also given to glean the harvested fields.

The prevailing tone of harvesting by a ración group is dour when compared with the festive atmosphere of a minga. Crespi attributes this to the need to finish the task and move on to other harvests and ración groups. The small size of the ración and reduced consumption of alcohol contributes further to its utilitarian air.

The ración group is comprised mainly of apegados, peasants who obtain their land from huasipungueros rather than from the hacienda, and who are in a much more precarious economic position. The ración group es a major source of their food supply. And apegado

is usually a participant in several ración groups recruited by members of his own nuclear family and that of his spouse. Out of consideration for their marginal economic position, they may also be called upon to participate in the harvests of more distant kin. On his own plot, however, the apegado assumes the role of land owner at harvest and distributes the appropriate "gifts" to the participants. An apegado can obtain a considerable quantity of food through participating in ración groups, at times amassing enough for a marketable surplus.

There is another use of the concept of ración, in the distribution of food called unigillar (Q. lacking food for a long time) even when no labor is contributed. Unigillar is a form of social assistance from the recipient's viewpoint, and a gift from the donor's point of view.

> In this type of transaction the recipient is usually an apegado from another compound whose food supply has dwindled. When the apegado goes to unigillar he carries a small food gift to the landholder; some cheese and bread, salt and sugar, and occasionally a cuy are tokens that promise future recompense and remove the apegado from the category of beggar. The huasipunguero understands the nature of the visit without specific verbal explanations and in accord with the relationship between him and the apegado gives the latter between 50 and 100 pounds of potatoes or a generous amount of barley if that crop is being harvested at the time. The apegado may provide an afternoon's labor in return for this but whether or not he does, he is expected to return at some time with a gift for the donor.
>
> Crespi 1968:305

One of the significant differences between the minga and the ración group lies in their respective sizes and compositions. Participants in mingas usually number between 10 and 20 persons. There do not seem to be any special criteria for recruting mingeros; they can consist of the host's kin, compadres, and neighbors, as well as individuals who

have only a remote relationship to the host. The ración group, on the other hand, usually has no more than eight members. We have mentioned that most members of a ración group are apegados. Kinship is also an importantcriteria for recruting members; they are usually selected by the landholder from among his closer consanguines, i.e. parents,siblings, and children, and occasionally from among close affines. Furthermore, mingeros do not regularly cooperat with each other and with their host during the other tasks in the agricultural cycle and in non-agricultural activities.

The term minga, as I have referred to it, using Crespi's data as illustrative, is often confused in Ecuador with a custodial form of labor, called minga, in which the obligation to participate is based on differential ascribed power. I will refer to the latter as "public" mingas to distinguish them from the former which I will call "private" mingas. In the custodial form, public mingas are still found today in the Ecuadorian Sierra and in some cases in the city. Members of an annex, a parish, or a barrio, organized and led by either their natural leaders or by government authorities, work for one or several days, always consecutive, in tasks of collective interest, for example, in the construction or repair of roadas, churches, streets, plazas, schools,.. Those that participate in the labor receive food and drink. The participation in mingas is ostensibly voluntary and constitutes a form of collective labor of use for the realization of works of social benefit in zones or sectors where state action has not yet arrived or is unsufficient (Hurtado and Herudek 1974:26).

Public mingas are an important means through which the supra-household sphere of production can create and maintain crucial technological inputs, such as irrigation works

and roads (Martínez and Dubly 1967:11). The public minga, when carried out by local authorities, is thus similiar to the faenas of the Peruvian Andes. In both places, sanctions are important to the ability to recruit participants. Villavicencio says that in Otavalo, for example, participation in mingas is a social obligation excercised by members of the barrio of a parcialidad. Sanctions include isolation, scorn, and almost total margination. Fines are apparently not needed to reinforce participation, even though there is a considerable cash flow in the area (Villavicencio 1973:99).

The Supra-household Sphere of Production

There are many similiarities and some differences between the supra-household sphere of production in the Peruvian Andes and its counterpart in Ecuador. First, there is a common matrix to the types of rural settlements found in each country. Costales and Costales (1962:75-78) have described Ecuadorian rural communities as follows. The anexo and the caserío are rural settlement types having a traditional political organization at the head of which is an official, usually termed an alcalde or a regidor, who prossesses a vara as a symbol of authority, as does his counterpart in Peru. The major difference between the two is that the anexo is semi-nucleated, with dispersed homestedas around a nucleus of a plaza and a church; the caserío has a dispersed settlement patterr. with no nucleus. The parcialidad, on the other hand, is a larger territorial division which may enclose anexos and caseríos within its limits. For example, the parcialidad of Naubig includes the anexos and caseríos of Naubig, Sananchuan, Naubig Chico, and Naubig Grande. The major assumption behind the parcialidad is that its territorial limits encompass a distinctive social grouping with characteric symbolic expression. This assumption

reflects a similiar pattern in the Peruvian Andes of demographic units at the "parcialidad" level which correspond to micro-regions, i.e,, a quebrada, or a valley bottom, and are recognized as socialty distinctive by local peasants. Lastly, the barrio, according to Costales and Costales, is essentially an urban residential division or a sector of a parish capital (parroquia rural), associated at one time with an artisan neighborhood or a guild.

The nomenclature of these rural settlements was changed to correspond to an all embracing "commune" category under a decree of 1937. This decree was a response to flaws in earlier legilsation which ignored the anexo, caserío, parcialidad, and barrio, placing them, in effect, under the jurisdiction of the rural parish and its political officer, the Teniente Político.

The Commune legislation of 1937 is similiar in intent to the Peruvian Indian Legislation. It assumes that communes are groups of peasants linked by language, tradition, and customs; public mingas are held to symbolize the ties among members of a commune. In 1965, communes were given a set of regulations in a Commune Law and the Juridical Statutes of Peasant Comunities.

As in Peru, communes enjoy autonomous legal status and control land within their territorial boundaries. Land which belongs to a commune can be exploited in two forms: as land held by a household in usufruct from a commune and as a "commons", usually high altitude pasture and gathering land. As in Peru, communes are organized along the lines of a general assembly made up of the adult population and an administrative body, che Cabildo, constituted of officers elected from among the general assembly. Each commune depends administratively on the Ministerio de Agricultura y Ganadería.

The contemporary geographical distribution of communes is given in table nine. As can be seen, the majority are located in the Sierra, with 62 percent of the communes found

TABLE 9

Peasant Communes, by Regions and Province, Ecuador 1973

| | No. | % | Population a/ | % |
|---|---|---|---|---|
| Sierra Region | 1.282 | 79.9 | 406.169 | 79.3 |
| Carchi | 83 | 5.2 | 18.555 | 3.6 |
| Imbabura | 151 | 9.4 | 44.993 | 8.8 |
| Pichincha | 148 | 9.2 | 45.784 | 8.9 |
| Cotopaxi | 214 | 13.3 | 67.408 | 13.2 |
| Tunqurahua | 148 | 9.2 | 65.610 | 12.8 |
| Chimborazo | 331 | 20.7 | 80.943 | 15.8 |
| Bolívar | 17 | 1.1 | 18.006 | 3.5 |
| Cañar | 72 | 4.5 | 21.526 | 4.2 |
| Azuay | 26 | 1.6 | 13.665 | 2.7 |
| Loja | 92 | 5.8 | 29.679 | 5.8 |
| Coast | 314 | 19.6 | 104.075 | 20.3 |
| Esmeraldas | 19 | 1.2 | 14.309 | 2.8 |
| Manabí | 130 | 8.1 | 41.215 | 8.0 |
| Los Ríos | 7 | 0.4 | 5.516 | 1.1 |
| Guaylas | 78 | 4.9 | 26.251 | 5.1 |
| El Oro | 80 | 5.0 | 16.784 | 3.3 |
| Oriente | 8 | 0.5 | 2.049 | 0.4 |
| Napo | 2 | 0.1 | 690 | 0.1 |
| Pastaza | 3 | 0.2 | 849 | 0.2 |
| Morona Santiago | 3 | 0.2 | 510 | 0.1 |
| TOTAL | 1.604 | 100.0 | 512,293 | 100.0 |

a/ Estimated. Until 1962, only persons over 21 years of age were considered in estimating population. After this date, all inhabitants of a commune were counted.

Source: Table 1, p.10. Hurtado and Herudek 1974.

in the provinces of Chimborazo, Cotopaxi, Imbabura, Pichincha and Tungurahua, in that order On the coast, the greatest number of communes are found in Manabí, El Oro and Guaylas provinces. As can be expected, these provinces also contain the bulk of the indigenous population.

The commune population of 512,293 is approximately 14 percent of the rural population of the country (Hurtado and Hurdek 1974:12). A third of the total and three-fourths of the coastal communes were founded in 1938, the first year in which the 1937 Commune Law was applied. These first coastal communes originated in "recintos" formed by the opening up of communication channels (Jaramillo Bryon 1970:71, cited in Hurtado and Hurdek 1974:12). In the Sierra, on the other hand, there has been a continual development of communal organization, particularly in the last decade. Chimborazo and Cotopaxi, for example, almost doubled their number of communes during this period up to 1960. Hurtado and Hurdek (1974:12) attribute this growth to the organizational work of the Misión Andina.

Ecuadorian communes do not function as specified in the legislation. Hurtado and Hurdek (1974:15) found that in 1972 only 730 communes, or 47 percent of the total, had re-elected Cabildo officers as required by law. Of this number, 56 percent of the Sierra communes had held elections, while only 16 percent of the coastal communes hand done so.

The commune legislation, together with that of 1897, created a basic conflict, also found in Peru, between a political structure oriented to national political and juridical ends and a traditional local political structure with roots in the civil-religious cargo system (see Beals 1966:54-55). Costales and Costales are aware of this conflict and mention one commune where members told them: "it would have made more sense for the curaca (an indigenous official) to govern the commune instead of the president of the cabildo (1962:38)".

As has been said in the chapter on Peru, the latter is closely related to certain functions of the supra-household sphere of production in Andean communities.

The study by Ralph Beals of Nayón, a community in Pichincha Province, illustrates the dimensions of the conflict (Beals 1966). In Nayón, at the time of Beal's study, there were a group of traditional political officials consisting of a governor and a set of alcaldes. In the past, as in Peru, the governor carried a vara adorned with silver crucifixes as a symbol of his power. A major and a minor alguacil served as body guards, an ordinario kept order, and a fiscal and a fiscalito were charged with maintaining morals. While in prior years these individuals exercised considerable power, in the 1960's years their importance had declined greatly, to be replaced by officers of the Cabildo, the Teniente Político, and representatives of other .

The conflict in Nayón and in other Ecuadorian communities inherent in a "dual" political structure at the local level is also manifest in the recruitment of custodial labor. On the one hand, custodial labor is used locally in the construction and maintenance of inputs into the production calculus. On the other hand, custodial labor recruited by extralocal authorities, and directed to regional and national goals, produces resentment and resistance in the local community.

The inherent conflicts and apparent weakness of the indigenous political structure constrasts interestingly with the many instances of the formation of cooperatives by peasants for the purchase of land . (Cueva and Dubly 1967:4-5; Martínez and Dubly 1967; Hurtado and Hurdek 1974;56; Martínez and Dubly 1969b:3). In Carchi, for example, around 50 of these groups exist. Their cooperative format allows them to purchase a hacienda that would

not be sold in small plots. It also affords a long term payment scheme, which is usually not the case with many purchases of labor by peasants. The land, after purchase, is exploited in common by the peasants and the products are sold to pay off their debt. Then the land is divided up among the member of the cooperative. The cooperative may then buy more land or continue collective exploitation. Where collective exploitation continues, benefits are distributed according to the number of hours worked by each member (Martínez and Dubly 1969b:3).

The pattern of cooperative formation in Carchi is similiar to that which obtains in other parts of Ecuador. A study made by the Free University of Berlin (1967, cited in Hurtado and Hurdek 1974:55) in the zone of Santo Domingo de los Colorados pinted out that the cooperatives function only to purchase land and obtain clear titles. Hurtado and Hurtado (1974) found, in their review of IERAC's archives, that land is most often distributed to cooperatives; within a cooperative, however, individuals retain parcels and collective use is limited to high altitude páramo land and woodlots. Group labor, by which the authors apparently refer to custodial and voluntary labor, is not common. In three cooperatives they studied, from 32 to 41 percent of the labor force acknowledged participating in collective labor. According to the authors, collective labor is used in the first few years following the creation of a cooperative when large amounts of labor are needed to construct certain public works. With time, collective labor diminishes and wage labor becomes more common.

It is very difficult to generalize about the nature of the suprahousehold sphere of production among peasants in Ecuador. The limited quantity of high quality ethnographic

material simply does not permit, at least during the time available in this study, in-depth comparison and analysis. What does emerge is the rather obvious conclusion that because of similiar ecological settings and social, political and economic histories, small-scale peasants in both Ecuador and Peru share a common pattern of organizing their production. Admittedly there are differences, of which perhaps the most telling is the variation in ecological setting between the Northern and the Central Andes. These differences can be used to explain the variation for example in the distribution of peasants who follow a subsistence strategy based on the herding of the Andean camelids. Thus, to restate a conclusion of the preceding chapter, while we can isolate certain tendencies in the supra-household sphere of production - eg. toward polyadic, multistranded, vertical, and long term coalitions - in any given empirical case, ecological constraints on production will be primary.

# THE NORTHERN ANDEAN HIGHLANDS OF COLOMBIA

## THE ANDEAN SUB-REGION

# THE NORTHERN ANDEAN HIGHLANDS OF COLOMBIA
# THE ANTIOQUIA SUB-REGION

## The Ecological Setting

The Antioquia region corresponds to an area above 1,000 meters in altitude in the Departments of Antioquia, Caldas, and parts of Valle and Tolima. This area was populated by a wave of migration which emerged from the centers of Santa Fe de Antioquia, Anserma, and the Valle of Aburrá beginning in the Colonial period and continuing to the present. The historical geography of this migration has been analyzed in the classic work of Parsons (1968).

The ecological setting is the tierra templada and tierra fría zones, and, in some areas, the páramo. Within this setting differences in topography and geography create a myriad of climatic changes producing in turn a variety of microecological zones.

Rainfall patterns are peculiar to the region. The western slopes of the Western Cordillera are hit by the humid winds of the Pacific Ocean and rainfall is higher here than on the eastern slope or on the Central Cordillera. The floor of the Cauca Valley receives as a result rather little rainfall while its immediate slopes are somewhat better off. On the Anticqueño-Caldas plateau annual rainfall oscillates between 2,000 to 4,000 mms. per year. On the eastern slopes of the Central Cordillera rainfall decreases and the highland Andean pattern of two dry seasons and two rainy seasons returns.

Temperature in Antioquia corresponds to altitudinal and topographical factors. It has been estimated than an increase in 187 meters in altitude brings a one degree centigrade increase in temperature (Guhl et. al. 1956: 39).

Vegetation is closely related to the vertical ecological zones created by the interaction of altitude and temperature. To a large degree, aboriginal vegetation has been eliminated by a succession of crops cultivated by man rising up from the valley floors. Only isolated patches of the original vegetation exist, but, by and large, mining activities in the páramo and intensive coffee cultivation in the lower altitudes have virtually depleted them.

## Aboriginal Cultural Development

Aboriginal Antioquia was inhabited at the time of Contact by large confederations of tribal Indians. The majority of them are classified as belonging to the Carib language stock. Little information of linguistic and cultural differentiation is available, however, from the chroniclers, and the usual practice was to assign them names based on the particular valley in which they were found and the name of their ruling chieftain, the cacique.

Because of a lack of socio-political complexity and centralization, as found, for example in the highland Chibcha, the aboriginal inhabitants were quite susceptible to the disruption following the Conquest. Within a few years after the arrival of the Spanish, most of the original inhabitants either died through disease or starvation or escaped into the rainforests of the Chocó. Those who remained formed an amorphous group which rapidly lost its cultural identity (Parsons 1968: 30).

The subsistence base of these groups was a mix of maize, beans, and sweet manioc, cultivated using the slash and burn regime. There is no doubt that they were excellent agriculturalists and there are even some accounts that they used irrigation. Evidence of ridged furrowed fields and the remains of extensive burials has led Parsons

to argue that aboriginal Antioquia had a very dense population and an advanced social structure (Parsons 1968: 31-33). Due to grave robbing and the lack of systematic archaeological research, the data do not exist however to resolve the salient questions concerning the socio-cultural development of the region.

The Evolution of Agrarian Structures

The quest for gold was the immediate cause of the colonization of the sixteenth century settlement of the province of Antioquia. The Indian population rapidly diminished from disease, however, and a limited number of high priced slaves were brought in to provide labor for the gold mines. Because of an endemic lack of available manpower, Spanish colonialists had to work themselves; thus, according to Parsons, creating a "democratic tradition of work" which contrasted with the rigid class structure in the Highlands to the east. Contemporary Antioquia is ethnically a mixture of Spanish, Indian, and Negro elements.

During the Colonial period, the region was quite backward, poor, and illiterate. This situation changed through the appointment in 1784 of a very progressive oidor, Juan Antonio Mon y Velarde. Mon y Velarde's regime brought about a number of reforms, in particular the creation of new towns, and the institutionalization of a work ethic.

By the late 18th. century gold production had fallen off. Agriculture emerged as an important force in the economy and settlers began to move into the southern slopes of the valleys, into Caldas and Tolima and westward across the Cauca River. The Colombian Congress between 1847 and 1914 encouraged settlement by making large land

grants to more than 20 towns that were founded in Caldas and Tolima. In general, small mountain side holdings characterized this frontier, continuing with the introduction of coffee as a major cash crop in the 1880's, a crop particularly adapted to small scale agriculture. In this century, agrarianism is being challenged by an industrial urbanism facilitated by a revolution in transportation, notably the truck and airplane (Parsons 1968: 1-9). Despite the revolution in transportation, the mule is still the most basic vehicle of transport in the coffee zone. The topography of much of the zone forbids the construction of feeder roads so that, according to Parsons (1968: 147), 80 percent of the crop must move by muleback for at least part of the journey to market.

## Organization of Production

Coffee production in Antioquia occurs within a zone between approximately 1,300 to 1,800 meters as is shown in the following table. In this zone, slash and burn agriculture predominated during the mining period of colonial Antioquia.

PERCENTAGE DISTRIBUTION OF COFFEE PRODUCTION BY ALTITUDE, COLOMBIA

| Altitude in Meters | Percent |
|---|---|
| 0 - 1,300 | 16 |
| 1,300 - 1,800 | 78 |
| 1,800 - 2,300 | 6 |
| | 100 |

Source: 1970 Coffee Census

Later it was adapted to the frontier expansion into Caldas and Tolima. It continues to be used today on the fringes of nuclear Antioquia where land remains cheap (Parsons 1968: 109). Where it is used, land clearing and seeding is done with exchange labor (Gaitán 1976: 60, 79). In the last fifty years, however, the introduction of coffee and planted pasture grasses has allowed an intensive permanent agriculture, bringing in its wake an increase in the rural population, an encouragement of the parcelization of the land into small holdings, and the accompanying rise of a numerous and independent small holder class (Parsons 1968: 109).

This tendency began to manifest itself in the late 1920's. The Coffee Census of 1932 found that in Caldas there were only 28 cafetales of more than 60 hectares. Only in Fredonia (Antioquia) and Líbano (Tolima, among the Antioqueño municipios, were large coffee haciendas numerous. Even these large plantations look small, however, when compared with those of Brazil where plantarions of up to several million trees are not uncommon (Parsons 1968: 144).

Data from the 1970 Coffee Census on the distribution of holdings in the coffee zone are summarized in the next table. The same basic pattern obtains, with holdings of up to 20 has. accounting for over 80 percent of the total.

Use of land, as opposed to ownership, is characterized by indirect usufruct. According to INCORA, "the characteristic tenure form is exploitation by aparcería, rent arrangements are infrequent, as is explitation by an administrator (cited in Gutiérrez de Pineda 1968: 271)". This pattern is reflected in the next table.

Size Range of Holdings in Colombian Coffee Zones

| Hectares | Number of Holdings | % of Total |
|---|---|---|
| 1 - 1.99 | 44,327 | 16.2 |
| 2 - 5.99 | 92,993 | 33.9 |
| 6 - 9.99 | 40,929 | 14.9 |
| 10 - 19.99 | 43,228 | 15.8 |
| 20 - 49.99 | 34,070 | 12.4 |
| 50 - 99.99 | 11,457 | 4.2 |
| Larger than 100 | 6,999 | 2.6 |
| TOTAL | 274,003 | 100.0 |

Source: 1970 Coffee Census

Land Access, by Size Category
Antioquia and Caldas Departments, 1960
(In Percent of Land in Each Class)

| Size, in Hectares | Owned, with Title | Indirect Usufruct a/ | Occupied w/o Title | Other Forms |
|---|---|---|---|---|
| 0 - 0.5 | 62.3 | 35.1 | 0.8 | 1.8 |
| 0.5 - 1 | 55.1 | 42.5 | 0.6 | 1.8 |
| 1 - 2 | 57.4 | 39.8 | 0.8 | 2.0 |
| 2 - 3 | 65.7 | 31.6 | 0.8 | 1.9 |
| 3 - 4 | 63.3 | 33.9 | 0.9 | 1.9 |
| 4 - 5 | 65.3 | 32.2 | 0.8 | 1.7 |
| 5 - 10 | 68.8 | 28.1 | 1.2 | 1.9 |

a/ Includes arrendamiento, aparcería, exchange for labor, and others.

Source: Table II-18, p.119. C.I.D.A. report on Colombia

The climatic and soil requirements are optimum for coffee cultivation in the Colombian coffee zone. It has proven unusually adapted to the well drained flanks of the mountains which are so steep as to preclude mechanized agriculture. Since coffee trees do not yield their first berries until the third or fourth year after planting and do not reach full production until the fifth year, coffee cultivation has not been part of the frontier complex that has characterized Antioquia (Parsons 1968: 141), since it implies a capital reserve and permanent occupation. For this reason, most cafetales are set out in land either previously in pasture or after slash and burn agriculture has depleted soil fertility through cultivation of maize, beans, or other subsistence crops.

One of the main advantages of coffee production lies in the simplicity of the technology associated with cultivation and processing. On small coffee fincas which utilize mostly familial labor and also practice subsistence cultivation the only equipment necessary is a hand operated pulping machine to remove the outside skin and pulp from the ripe berries. After pulping, the beans are fermented, washed, and dried on small trays or on cement patios. Coffee processed in this way is called parchment coffee (Parsons 1968: 147).

After a coffee plantation is established, major labor requirements occur during the harvest season and during weedings in the rest of the year. Fortunately the coffee harvest extends over two periods of several weeks each, normally falling during the time of heaviest rains. This reduces the necessity to schedule harvesting within a very narrow time period. Picking is normally the occupation of young girls, called chapoleras, who pick coffee berries from the trees to the rhythm of their singing (Parsons 1968: 152).

One of the strengths of the Colombian coffee grower is the existence of the National Federation of Coffee Growers which is undoubtably the strongest organized interest group in the agrarian sector. It has responded to the inherent dangers of world fluctuations in the price of coffee through the negotiation of coherant price policies, as was exemplified during the "bonanza" of 1976-1977. Since 1963, it has pushed for diversification as a solution to the dependence of the Colombian economy on coffee monoculture. This policy calls for the concentration of coffee production in those microregions where conditions are optimal and the development of production and forestry, where they can best be exploited. The Federation also carried out the Coffee Censuses of 1932 and 1970. Along with the efforts of the Federation, Antioquia also has the strongest cooperative movement in Colombia and very effective credit facilities. In a special supplement on coffee which was published on Oct. 30, 1976, in El Tiempo, Colombia's major newspaper, it was estimated that by the end of 1976 credit for coffee production would reach 1,000 million pesos.

As a result of the foregoing factors, small scale Antioqueño coffee producers have higher average incomes than peasants in other regions of Colombia. In the following table, income and expenditure figures are given for four size categories of small scale coffee growers in San Miguel, a vereda in the Department of Antioquia. This vereda had the highest production of coffee in the Department according to the Coffee Census of 1970.

These figures reveal that income from coffee sales accounted for at least 56% of the total income in each size category. In the 0-1.99 hectare category, wage labor is a significant source of income (19.9% of the total for the 0-1 size category; 16.9%

Income and Expenditures San Miguel Coffee Fincas
in 1976 Pesos

| Size in Hectares | Income from Sale of Coffee | Total Income | Coffee as % of Total | Expenditures | Net Income | Net Income by month |
|---|---|---|---|---|---|---|
| 0 - 1 | 23,616 | 41,556 | 56.8 | 16,290 | 25,266 | 2,105 |
| 1 - 1.99 | 33,456 | 61,521 | 54.4 | 27,622 | 33,899 | 2,825 |
| 2 - 5.99 | 95,776 | 119,603 | 80.0 | 57,336 | 62,267 | 5,189 |
| 6 - 9.99 | 223,696 | 257,652 | 86.8 | 126,602 | 131,602 | 10,967 |

Source: Economía Cafetera Anexo Vol. 6, pp. 18-19.

of the total for the 1-1.99 size category). There is a general trend for the sale of coffee as a percent of total income to increase with size of holding.

These income levels are generally higher than those found among other small scale peasants outside Antioquia. Comparisons are difficult because San Miguel is admittedly the most productive of the coffee veredas. Income is also distributed on a seasonal basis. If, however, we calculate income on a monthly basis, then comparisons may be made with Bogotá's blue collar workers. Ordinary policemen make 1,800 pesos a month and unskilled factory workers around 2,000-2,500 pesos a month in Bogotá; even the smallest size holdings in San Miguel fall within this range and the larger holdings are quite remunerative even by Bogotá's standards.

We will now turn to Támesis, a community of coffee growers in the Antioquia Department. Támesis was studied initially in 1963 by a rural sociologist (Havens 1966) and re-studied in 1970 (Rojas-Ruiz 1974). These studies offer a profile over time of a coffee-growing community which is in many ways similiar to others in the Antioquian sub-region. It serves, further, to illustrate the differences between rural settlements found there and in other regions of the Colombian lowlands and highlands.

In 1963, land distribution in Támesis was demonstrably inequitable. According to Haven's calculations (1966: 59), based on cadastral lists, 2.5 percent of the properties over 100 hectares in size represented 41.6 percent of the land. On the other hand, 46 percent of the properties represented only 2.6 percent of the land on holdings of less than one hectare. This pattern is a reflection of a process of subdivision which began shortly following the founding of Támesis in 1857 as a settlement

of colonialists on the agrarian frontier. The production orientation of all farmers in Támesis is that of commercial market production based on the intensive use of land and familial labor. Even the smaller holdings are successful in producing a marketable surplus of coffee, as well as sugar cane in the lower zones.

Coffee is not the only source of income in Támesis. Of the 688 persons interviewed by Havens, 220 engaged in wage labor through which they contributed to household income. In addition, 41 individuals had more than one job or occupation. On the average, each employee supported himself and two other persons (Havens 1966: 103).

Despite an inequitable land distribution pattern and indications of occupational diversification and dependent wage labor, class diferentiation is not pronounced in Támesis (Havens 1966: 108). The large majority of residents of Támesis considered themselves, and were considered by others, as members of the middle class. Nevertheless there is both a large degree of upward mobility, archieved primarily through education and the accumulation of income, and downward mobility through the loss of productive capacity (see Havens 1966: 108-111). Havens contrasts the situation in Támesis with that found in other regions of Colombia where the latifundio-hacienda complex is found (1966: 108).

In the 1970 re-study, it was found that while there remain deep differences between large landowners and the majority of small-scale peasants, there is still a large sector of middle holders and small scale peasants. According to a local leader: "...Támesis is not one of the towns where this difference (between large owners and minifundistas) is readily felt because there is a more or less large middle class, a lot

of minifundia and middle property (sic). But in other places, the matter is more acute. For example, in our neighboring town of Valparaiso five families own the municipio and the rest of the people work for them for insignificant wages". Another leader said: "I know the most popular part (of the municipio) is the region of San Pablo and San Pedro where humble people live and have their small plots. Their way of life, even though it is not very acceptable, supplies their needs. This municipio is one of model areas because there isn't as much misery as in other places (quoted in Rojas Ruiz 1974: 97)".

Rojas Ruiz attributes the lack of tension in Támesis to the fact that the large landholding class of Támesis is resident elsewhere. Once they have made their fortunes, they move to Medellín, from which they continue to exercise economic power over the community. As a result, "In Támesis there appears to be a separation between economic power -which is based on control of the community's productive resources but is realized outside it- and political power, seemingly wielded by a group of politicians more or less independent from the large owners. Moreover, once members of the dominant class have amassed fortunes in Támesis they invest capital outside the community. This diversification generates new sources of income for the upper class and tends to separate them from the fate of the people of Támesis. (Rojas Ruiz 1974: 98)".

# THE NORTHERN ANDEAN LOWLANDS OF COLOMBIA

# THE NORTHERN ANDEAN LOWLANDS OF COLOMBIA

## The Ecological Setting

The lowland region of Colombia with which we are concerned consists of the Pacific Coast, The Atlantic Coast, and the drainage of the Cauca and the Magdalena rivers.

In northern Colombia, the three main branches of the Andean Cordillera gradually descend to a flat, ondulating coastal plain. The only significant outcropping is the Sierra Nevada range of Santa Marta. Moving southwest from the tropical desert of high temperatures, low rainfall and humidity, and strong sun and fierce winds of the Guajira Península, the setting becomes somewhat more pleasant, to an area of unrelieved flatlands, poorly drained sandy soils, and sweet and salt water surface deposits. Vegetation is typically steppe-like with spiny bushes and low deciduous folliate bushes. According to Holdridge's classification, as illustrated in the accompanying map, the coastal zone is very dry tropical forest (bosque muy seco tropical), except in the tropical desert region of the Guajira Península.

The major changes in vegetation as one moves away from the coast correspond to climatic variation, notably in annual rainfall. The savannah (bosque seco tropical), is a zone of open land covered by natural grasses and groves of deciduous, leafy trees. More inland an increase in the regularity and quantity of rainfall causes humid tropical forest (bosque húmedo trópico).

# MAPA ECOLOGICO DE CLIMA CALIDO DE COLOMBIA

BOSQUE MUY SECO TROPICAL

BOSQUE SECO TROPICAL

BOSQUE HUMEDO TROPICAL

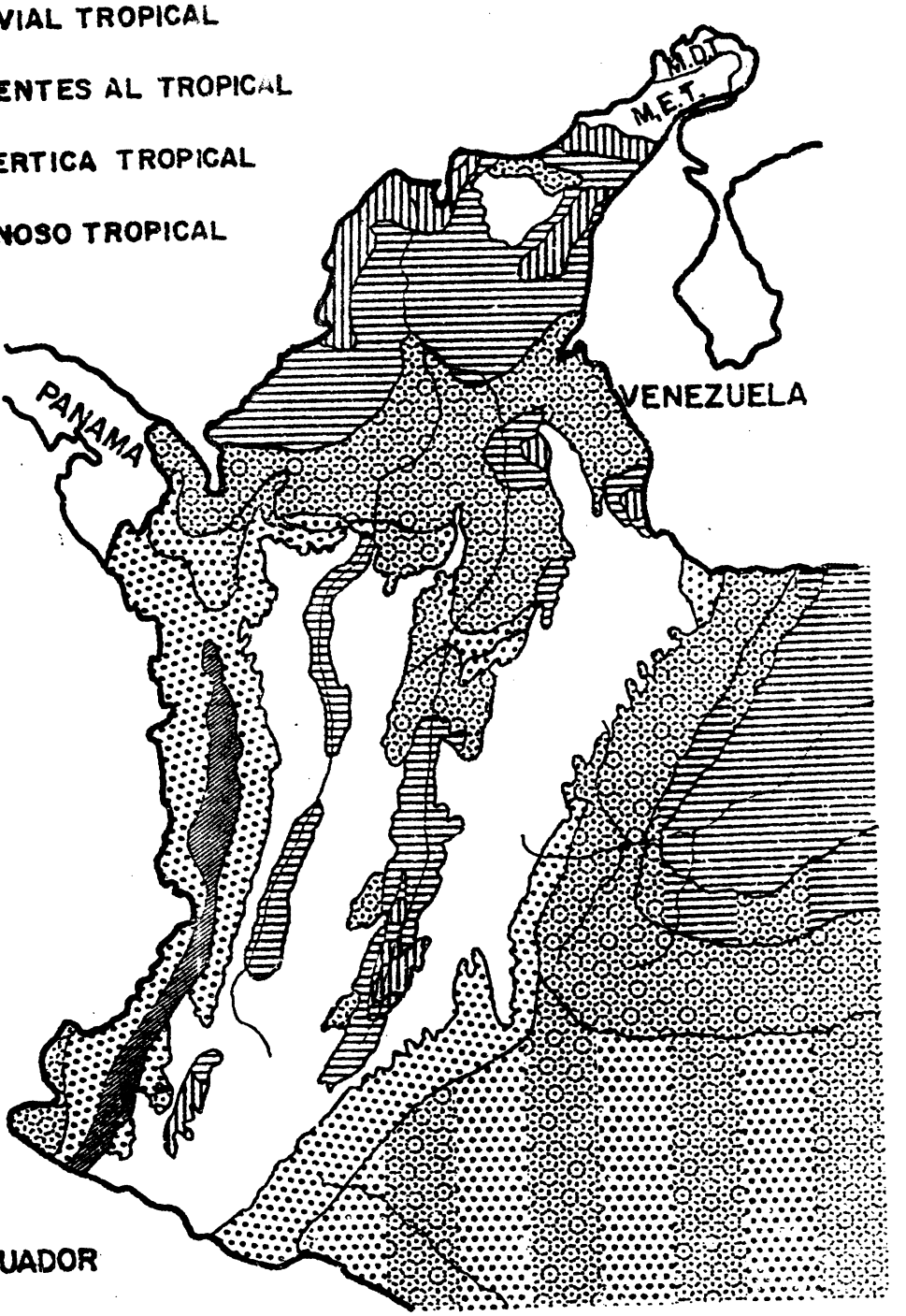
BOSQUE MUY HUMEDO TROPICAL

BOSQUE PLUVIAL TROPICAL

PISOS DIFERENTES AL TROPICAL

M.D.T. MALEZA DESERTICA TROPICAL

M.E.T. MONTE ESPINOSO TROPICAL



The northern Andean lowlands of Colombia are drained by two major river systems, the Magdalena and the Cauca. The former is a slow running, meandering, river which carries sediments deposited along its course by streams and rivulets running down from the Cordillera. These sediments fall out during its course to form beaches, islands, and sand bars. In its upper reaches, until it reaches La Dorada, precipitation varies between 1,000 to 2,000 mms. annually, producing aboriginally a dry tropical forest (bosque seco trópico) now almost totally cleared by human action. An increase to a range of from 2,000 to 4,000 mms. annually from La Dorada to El Banco results in an aboriginal humid tropical forest now cleared in many large areas for cattle raising. As the coast is approached, the ecological setting shifts to the coastal lowland pattern already described.

The Cauca river originates around Popayán and eventually empties into the Magdalena around Mompós. In its upper reaches in Valle Department its course is highly irregular, until it enters Caldas and Antioquia where it flows into a very narrow canyon and picks up speed to a rapid torrential flow. It remains this way until it drops to the coastal plains. There are two basic climatic zones along its course which reflect significant variations in rainfall. The first is in Valle Department where an annual rainfall of between 1,000 to 2,000 mms. produces dry tropical forest, until it leaves Antioquia and rainfall increases to the level of humid tropical forest.

The Pacific Coast is broken up into three sub-regions: the coastal plains, the San Juan depression, and the inlands. On the coast a very high average rainfall from humid Pacific winds generates a dense humid tropical rain forest. There are

basically three types of land utilized by human populations in this sub-region: (1) the natural levees and low river terraces subject to occasional flooding; (2) the wet backwamps behind the natural levees and the fresh-water swamps near the coast; and (3) the hill slopes.

The San Juan depression is an alluvial valley which opens up communication possibilities between the coast and the highlands. Its soil quality is poor, however, and is depleted of its fertility rapidly under agricultural regimes. Its vegetation is humid tropical rain forest.

The inlands have very high temperatures which subside somewhat in the higher altitudes. This is one of the most humid areas in the world. There is no real dry season, and only a slight letup in the months of July and August to the end of January and February. The ecological setting is very high humid rain forest.

Aboriginal Cultural Developments*

In the lowland areas of the Guajira Peninsula and the lower Magdalena River of the Atlantic Coast, cultural development at the time of the Conquest was at a level of small village farmers using shifting cultivation based on manioc. There was no wider political cohesion beyond the village nor any marked social or religious complexity: "They formed small local chiefdoms, trading with each other and at times, perhaps, warring with each other, but never achieving a political unity beyond the narrow confines of their own lagoons, their own range of hills, or their own stretch of river (Reichel-Dolmatoff 1965: 125)".

* This section is based on Reichel-Dolmatoff 1965

Moving west and down the Atlantic oast, toward the San Jorge and Sinú rivers, this pattern changes little. On the upper Sinú archaeological finds grouped under the Tierra Alta phase suggest small maize farming communities combined with fishing. Sites with similiar cultural content are found at many spots along the Sinú river and in the neighboring hills, and extend north-eastward toward Cartagena and south-westward toward the Gulf of Urabá.

On the middle courses of the Sinú and on the San Jorge River a culture developed with few precedents in the Coastal lowlands and which approximates sub-Andean cultures in Central Colombia. This complex covers a wide area between the Sinú and the San Jorge Rivers. There is evidence of maize cultivation on the fertile flood plains which, together with trade, furnished a stable economic base. Agricultural techniques were evidently advanced to cope with periodic flooding. In many parts of the San Jorge Valley one can still observe hundreds of acres covered with parallel ridges separated by furrows, providing well drained fields for maize and other crops.

This culture was still flourishing when the Spanish arrived around 1530. According to early sources, the entire area was divided up into three main divisions. Three brothers each headed a division. The tribal confederation was founded on the political and priestly power of the respective chiefs; based on this power, chiefs were able to organize the labor of their population in extensive public works of a utilitarian and religious nature. The prolific gold working practice of these people was the ultimate cause of their demise, however. It tended to attract the interest of the Spanish, and eventually led to their extermination and the looting of their burial grounds.

Meanwhile, on the beaches and offshore islands between the mouth of the Magdalena and the Gulf of Urabá, a simple farmer-fishing folk had established a number of small villages and camp sites which were encountered by the Spanish on their arrival.

Cultural development followed a different course in the Pacific Coast. Although archaeological research is in its infancy there, it has been determined that except in the extreme south where climate and soils were more favorable, culture did not develop beyond that of small horticultural and fishing forest dwelling communities which frequently changed their housing sites.

## The Evolution of Agrarian Structures

The transformation of lowland Colombia can be traced initially to mercedes, grants of land which differed from the encomienda in that the latter was a grant of tribute which could be exacted from the indigenous population. Mercedes provided the basis for large scale extensive cattle exploitations using concertaje Indians from nearby reservations as a labor pool. Widespread exploitation, flight, and introduced diseases decimated very quickly the Indian population and as a result the mercedes, now haciendas, became the predominant feature of the countryside. In the outlying regions, away from the coast, a new and different kind of agricultural enterprise began to emerge during the late Colonial period. This was a relatively small holding based on a mix of banana, rice, and coconut cultivation and some cattle raising. Because of the lack of a local Indian population, black slaves were brought in at high cost to supply the needed labor. An exception to this pattern was the emergence

of two very large cattle operations, slave run and absentee owned: That of the Marqués de Santa Coa, a resident of Mompós, and the Conde de Santa Cruz.

During the eighteenth century hacienda expansion, as well as the need for slaves, increased in response to the demand for food stuffs for urbanizing Cartagena. This expansion continued into the southern frontier in the nineteenth century and was accompanied by technological innovations, such as the introduction of distillation equipment and the mechanization of several stages of sugar cane production and processing. The major leader in this regard was the Hacienda Berástegui. The owners of this enterprise constructed the first sophisticated sugar mill (ingenio) on the coast in 1897. During the same decade, the hacienda grew to 12,000 hectáres and transformed its labor force into a semiproletariat. It became a potent national political force.

The lead taken by Hacienda Berástegui was soon followed by capitalist penetration in other sectors on the coast during the middle and late nineteenth century. Generally, these enterprises were foreign owned. Rubber first attracted British and North American entrepreneurs, followed by tropical hardwoods, cattle, and most recently petroleum. Sugar and bananas have also attracted foreign capital. Foreign investment has tended toward the enclave kind of development, except for expansion in the southern frontier area on the Hacienda Berástegui model.

The introduction of admirable or Para grass helped immensely in the expansion on the southern edge, as it allowed hacendados to create permanent pastures enclosed by fences rather than continuing the nomadic, transhumant pasturing pattern. When the dense, humid tropical forest in the far south was reached, haciendas devised a set of

arrangements such as the arriendo de pastos, tierra por pasto, and monte por yerba, in order to clear forest for permanent pasture. These arrangements were similar in many respects; they were organized using middlemen called contratistas, who allowed peasants to clear forest in "new" hacienda land and seed part of the plot in maize and part in pasture grass. The peasant was then "advanced" profits from the sale of his corn based on a very low expected rate of return, in effect making him debt bound.

Peasants responded to these exploitative arrangements by outbreaks of violence, outmigration to metropolitan areas, and the spontaneous colonization of more remote forest lands. Spontaneous colonization proved to be a boon to hacienda interests, as they were able to use it for expansion of their permanent pasture land. This was accomplished through the infamous three step system. The first step of this system is the first phase of slash and burn agriculture: the peasant clears, burns, cleans and seeds a plot which was originally primary forest. After several years, fertility falls off, and the land becomes unproductive for agriculture, forcing the peasant to move to other forest land to repeat the procedure. In the second step, he sells the improvements he has made on the land to a second party, either a middle holder or a contratista who consolidates it together with other properties acquired in the same manner. In the last step, the consolidated property is sold to a hacendado. This procedure was a common means of hacienda expansion during the early twentieth century. Fals Borda traces the violence during 1948-57 in this region to what he interprets as the violent integration of an agrarian frontier into the capitalist mode of production (1976: 31-48).

Mateo Mina's study Esclavitud y Libertad en el Valle del Río Cauca (1975) documents the evolution of agrarian structures in the Cauca Valley and suggests their implications for shifts in production organization among small holders. The colonial economy was a mining economy with African slaves brought in to supply labor in place of the almost decimated Indian population. Following the Wars of Independence and the proclamation of a law emancipating slaves in 1851, the regional economy shifted to the export of cash crops produced in the fertile lowlands. Large plantations making the shift were less than successful, however, in attracting labor from among the residents of black communities. Because of their importance in the regional political economy they were able to have a series of measures applied, such as the infamous vagrancy laws, which effectively forced the black population to work for them on extremely exploitative terms. In the first part of the 20th century several factors combined to effect a "take-off" in large scale export oriented agriculture: investments by the public sector had been made in production and distribution infrastructure together with readily available capital, population growth, and a guaranteed world market. This had two important effects: (1) the shift of small holders, who were able to retain control over their land, from subsistence to cash cropping. Food was no longer produced for consumption but rather for sale, and conversely, food for consumption was purchased on the open market. Many marginal smallholders were unable to make the shift successfully and were forced to dependence on permament and seasonal labor for the large scale producers; (2) the optimum export crop turned out to be sugar cane and a shift among large scale producers began early. Mina pinpoints the period from approximately 1938 to 1968 as growth years for sugar cane cultivation and estimates that the

number of hectares dedicated to this crop increased from 370 at the beginning of the period to 17,200 in 1968. Much of this increase, according to Mina, was due to land obtained from small holders rather than extensive cattle land turned over to sugar cane as many authors maintain (see Crist 1952).

## Organization of Production

The Northern Andean lowlands are characterized by an agricultural regime found among peasants throughout the humid tropics. This regime is referred to by a variety of names, including: roza, swidden, slash and burn, milpa, and fire agriculture. In Colombia it is one of the earliest adaptations by Indians to aboriginal tropical forest, and continues to be found today primarily in colonialization zones and on the agrarian frontier. There is a characteristic sequence to slash and burn agriculture which gives it its name. The initial step is the cutting down of first or second growth forest. Contrary to longstanding myth, slash and burn cultivation is not found primarily in virgin forest, where it tends to waste valuable tropical hardwoods (see, for example, Smith 1967: 200). Rather, there is a preference by its practicioners for second growth (see Conklin 1954). The reason is quite simple; clearing the dense growth, including hardwoods, of primary forest is much more labor intensive than clearing second growth. After clearing, the rubbish is left to dry. It is very important that sufficient time be allowed for this stage. If residue is not sufficiently dry, then burning will not adequately return ash to the soil. This is a valuable source of nutrients which impoves substantially the narrow humus layer of tropical soils on which growth takes place. After clearing and burning, the plot is planted, usually by making holes in the soil

with a simple dibble stick and dropping in seeds and cuttings of tubers. The plot will yield for usually two to four years, after which productivity falls off. It is then necessary to leave the plot fallow for a relatively long time, ranging from 4 to 15 years depending on local ecological conditions. This often implies than in the humid tropics settlements of slash and burn cultivators will move after a period of years, following several cycles, thus giving the name "shifting cultivation" to its practicioners. It is far from clear however whether this movement is caused by the depletion of soil reserves or animal resources, since the latter is the important source of protein in the diet of slash and burn agriculturalists.

There is an ongoing debate over the long term effects of slash and burn agriculture. Many anthropologists, led by the work of Harold Conklin (1954), maintain that slash and burn is an ecologically sound agricultural adaptation with high yields per unit of labor (as opposed to unit of land). They point to several characteristics of the regime which enable it to replicate the natural conditions of aboriginal tropical forest. These include the use of a very large number of species that are cultivated as opposed to monoculture, thus maintaining the ecological stability of the tropical forest; interplanting a large number of species in a small space; and keeping some trees, particularly banana, which cut down on sun exposure and the growth of weeds. The contrasting point of view is that of Bouillenne (1962), who argues that slash and burn agriculture is ultimately destructive of tropical resources, particularly soil. This position has been taken by T. Lynn Smith, a rural sociologist who has worked extensively in Colombia (see Smith 1967: 205).

The system as practiced in the dry tropical forest zone of Cereté is described by havens and his colleagues as follows. The first step is the selection of land covered by second growth. Usually such land is located at some distance from the peasan's house, requiring a long walk, especially if he has more than one plot. Low lying growth is cut with a machete and trees with an axe. If the land has not been worked in the last five years, growth will not be too exuberant and clearing will be relatively easy. The rubbish is allowed to dry in the sun for two or three weeks. It is then carefully burned after which trunks and branches which have not completely disintegrated, are removed. If the land contains large trees, they are first cut down before burning proceeds.

Ordinarily, in the humid tropics fire is used in native shifting agriculture. Heavy rainfall and the lack of a dry season preclude the use of fire in the Pacific lowlands. Instead, a peculiar system which West calls "slash-mulch" cultivation has evolved. "Seeds are broadcast and rhizones and cuttings are planted in an uncleared plot; then the bush is cut; decay of cut vegetable matter is rapid, forming a thick mulch through which the sprouts from the seeds and cuttings appear within a week or ten days. Weeds are surprisingly few, and the crops grow rapidly, the decaying mulch affording sufficient fertilizer even on infertile hillside soils". (West 1957: 129).

In the slash and burn regime of the lowlands considerable land must be available to allow one section of a holding to fallow while another is under cultivation. In the accompanying table an indication is given of land distribution in the Departments of Atlántico, Bolívar, Córdoba, and Magdalena.

Distribution of Agricultural Units by Number and Extension, and by Size Category, Caribbean Region 1960

| Size Groups, in Hectares | Units | | Extension Total | | Average in Hectares |
|---|---|---|---|---|---|
| | Number | Percent | Hectares (1000) | Percent | |
| Less than 10 | 120,793 | 67.5 | 241 | 3.4 | 2.0 |
| From 10 to 100 | 43,741 | 24.4 | 1,491 | 21.3 | 34.1 |
| From 100 to 500 | 12,225 | 6.8 | 2,348 | 33.5 | 192.1 |
| More than 500 | 2,356 | 1.3 | 2,928 | 41.8 | 1,242.8 |
| TOTAL | 179,115 | 100.0 | 7,008 | 100.0 | 39.1 |

Source: Table II-3, p. 72. C.I.D.A. Report on Colombia.

The first obvious pattern is a sector made up of 8.1 percent of the total units which controls 75.3 percent of the land surface. Holdings over 500 has. comprise only 1.3 percent of the total number of units but average 1,242.8 has. in size. This sector is made up largely of cattle and cotton operations characterized by low use of capital and land. Cotton is a recent introduction in this region, found in Ariguani, Codazzi, and Cereté. Cattle raising is confined principally to César, Ariguani, Fundación, Mompós, Bajo San Jorge, and the savannah of Bolívar and Sinú.

Within what might be called the peasant stratum, there exist two subgroupings. First, 67.5 percent of the holdings are less than 10 has. in size, averaging 2.0 has. Given the nature of the agricultural regime, not all of this land can be intensively cultivated. This is a marginal peasantry at best. In the 10 to 100 has. size group, 24.4 percent of the holdings are found and average 34.1 has. in size. This would appear to be an optimum size holding to fully employ the resources of a family, with limited mechanization.

As is shown in the next table, about half of the land in the 1 to 10 hectare range is owned and titled. Indirect usufruct is an important supplementary form of access. Most of this land is obtained from owners of large holdings in exchange for labor obligations. Renting is rare because of lack of cash and high risk (Havens, Montero, and Romieus 1965). Small scale peasants obtain most of their subsistence needs from these plots; they are supplemented with cash income from seasonal labor on the larger cotton and cattle operations.

Land Access in 1-10 Hectare Holdings,
Caribbean Region 1960

| | |
|---|---|
| Owned with title | 49.1 |
| Indirect usufruct a/ | 37.3 |
| Occupied without title | 12.4 |
| Other forms of possession | 1.2 |
| | 100.0 |

a/ Includes arrendamiento, aparcería, exchange for labor, etc.

Source: Table II-1b, p.116. C.I.D.A. report on Colombia.

Small scale peasants live ordinarily in nucleated settlements in lowland Colombia rather than in the dispersed settlements typical of the highlands. In many instances, they are remnants of palenques, autonomous settlements formed during the 17th. and 18th. centuries by escaped slaves. Palenques were modelled largely after the homeland communities in southwest Africa. Production was carried out in land exploited collectively and in small household plots. Political organization involved differences in rank and "kings" such as the famous Domingo Bioho of San Basilio palenque were common. Available reports indicate that production was oriented to use; surplus was redistributed back into the community to bolster the labor force and to purchase arms and powder for defense.

Urbanization of Spanish towns in the late 18th. and early 19th. centuries and the expansion of large holdings requiring a labor supply ultimately proved to be the demise of the palenques. The walls of San Basilio were broken in the late 18th. century and the community was integrated into the market supplying Cartagena. Assimilation of the palenques in the San Jorge and Cauca lowlands proceeded apace and a hybrid mestizo, zamba, and mulato population emerged. Today only at Palenque, near Cartagena, is a totally black settlement with an autonomous cultural matrix to be found.

Two examples of lowland nucleated communities and their relations with neighboring latifundia can be found. The first is Cereté, a municipio located in the coastal plains of the Department of Córdoba. It was studied by a team under the direction of Eugene Havens in 1962 and 1963 (Havens, Montero, and Romieus 1965) and restudied in 1971 by a researcher from the University of Wisconsin (Rojas-Ruiz 1974).

The original study in 1962-63 found that 69% of the landowners controlled only 3.5% of all the land (holdings of less than 10 hectares), while 5.8% of the landowners control 60% of the usable land (holdings of more than 100 hectares). Twenty-three land owners monopolized 23% of the total agricultural area of the municipio (Havens, Montero, and Romieus 1965: 70).

The findings of the original study are inadequate to reconstruct in detail the organization of production among small holders in Cereté. 35% of those interviewed were subsistence farmers growing rice and maize as staples, keeping pigs, and growing bananas as a secondary concern. Their plots averaged three hectares in size and most were located along the edges of the latifundia. They were either owned and worked by their owners or obtained from relatives. Renting of land was rare because of the lack of cash and the high risk of crop failure. Familial labor appeared to be adquate although some labor intensive practices designed to improve returns and reduce risk, such as interplanting of maize, name, and yuca, were followed. The main peak period of labor need occurred in the dry rice harvest. When this occurs labor groups are recruited and paid in kind according to a set formula between owner and workers.

During the period from 1962-63 to 1971 conditions of small holders worsened according to Rojas-Ruiz (1974: 82-95). Land held by small-holders eroded considerably reducing productivity. Wages on latifundia did not take yp the slack, tending to remain low and in some cases declining. The efforts of government agencies such as INCORA did result in some improvements in infrastructure, but their impact has been mixed. In many instances, they tended to increase the value of large holdings and middle holdings. Some land was redistributed, but because of political constraints it

failed to significantly improve the land redistribution pattern and falsely increased the expecyations of smallholders and landless peasants. Because of the flaws in government policy and the continued straits of the small holder, tension during this period erupted in the form of land invasions met by massive retaliation by landowners in conjunction with police.

Our second example is a settlement of small holders in the Cauca Valley studied by the anthropologist Nina de Friedemann. It is a densely populated corregimiento in the Municipio de Quillachao, in the southern part of the valley. The community consists of basically two parts: a nucleus of around 550-600 homes and a series of outlying satellite settlements called veredas. According to a survey of 37 households, 78.7% of the vereda population controlled land, while only 31% of the corregimiento population had access. These holdings average from one to seven plazas in size (one plaza equals eighty square meters). Cacao and coffee, both cash crops, are grown. The author notes that exchange labor is used during peak periods, but insufficient information is provided to reconstruct in detail production organization. The only other source for labor use is the manufacture of tiles, which affords opportunities for a few peasants.

Data on associative labor strategies in the Atlantic coastal lowlands come from a paper by Price (1954). One section of the paper deals with labor practices in two communities: La Boquilla, a few kilometers from Cartagena, and El Manzanillo. The former has around five thousand inhabitants; the latter a few hundred.

Price distinguished between two types of associative labor: cambio mano and convite. Cambio mano is divided into two subtypes, A and B. Subtype A corresponds to our reciprocal exchange labor type. It consists in an agreement to enter into an exchange of labor between two or three men for a period of a year in agricultural tasks such as the clearing of land, the seeding of plots (rozas), and harvest. The method is simple: the group works in the individual plots of each member of the group on successive days. This arrangement lasts as long as it satisfies the members needs, on occasion up to fifteen years. In other cases it lasts no longer than a day's work in each member's plot. Generally, the owner of the plot works alongside other members of the group, although he isn't obliged to do so; he feels, however, that he should be around to see that the work is going smoothly. If he can't be there to work with the others, he will accompany them to the site, give them instructions, and return later to inspect the work.

Subtype A can be further divided based on whether the agreement obliges the landowner to provide food or not. Where food is given (con comida) the number of meals varies from one to three depending on the arrangement. The con comida arrangement often leads to arguments over the quality of food of one landowner as compared to that of another. If a landowner persists in giving poor quality food, he may be excluded from the arrangement.

Subtype A can consist of friends, kinsmen by birth or marriage, or fictive kinsmen (compadres). If there are only two individuals involved, they may well be of the same extended family. It is often common to find that individuals form compadrazgo ties due to reciprocal labor arrangements.

Subtype B is a much larger group of workers which may include all of the residents of a small community such as El Manzanillo. The most frequent use of this kind of labor is the burning of felled growth prior to the seeding of a roza. First, the growth is cut and prepared for the burn. When sufficiently dry, a fire is very carefully started under the supervision of capataces who make sure that the fire does not damage the property of individuals who are not participating in the work party. The fire may burn for several days depending on the land, its location, and if the plots are adjacent or not. During the burning, the women provide food for the male laborers. Following the burning, the host supplies food and drink for a feast.

The second major type of associative labor noted by Price is the convite. It is the counterpart of an African institution found in various parts of the New World, particularly Haiti. In organizational terms, it is very similiar to Subtype B of cambio mano. The host, dueño del trabajo, visits households in his community inviting them to meet on a certain day. Participants are usually recruited for two kinds of tasks: the construction of a house or the burning of a roza. The incentive to participate derives from the food provided by the host during the work and the dance that is held at the end of the day. As in the prior example, male workers and women who cook the food are organized by the host into cuadrillas.

Because of its festive character, the convite was quite popular. Nevertheless, Price described it in 1954 as disappearing in the agricultural cycle of communities like El Manzanillo because of the large outlays of cash that were required when compared with the small size of the slash and burn plots.

There are significant differences with respect to access and use of factors of production in the Pacific lowlands. Let us start with land. In general, land access is governed by a complicated set of principles involving individual usufruct from local communities and undifferentiated access to communal lands located far away from settlements (see West 1957: 154). Plots farmed by an individual may be located among a number of microzones described by West as: (1) the natural levees and low river terraces subject to occasional flooding; (2) the wet backswamps behind the natural levees, and the fresh water swamps near the coast; and (3) the hill slopes. The natural levees and the low river terraces are best for farming with their rich alluvial soils. Swamp soils, because of drainage and acidity problems, offer fewer possibilities. A great variety of soils are found in the hill areas with the better to be found on steep to moderate slopes.

Peasants in the Pacific lowlands combine agriculture with fishing, and, in many areas, gold mining. Wage labor on large plantations, as in the Atlantic lowlands and the Cauca and Magdalena Valleys, is rare. Because of the dispersed location of plots, the seasonal agricultural cycle, the nature of the slash and burn (or mulch) regime, and the inclusion of other subsistence and commercial activities which are seasonal in nature, such as fishing and gold mining, the coastal population is constantly on the move.

Nina de Friedemann has studied in depth the economy and social organization of Los Brazos, a community located along the Güelmambi River in the region of Barbacoas (Friedemann 1966-1969, 1974). The economic base of this community is agriculture, fishing, and gold mining, all organized into a complex annual calendar.

Friedemann identified a complex social organization, termed mina, which regulated use and access to production factors, the division of labor by age and sex, and the organization of production decisions.

Access to land for agriculture and mining is a function of tracing kinship ties to descent groups. Descent can be traced either through the male or female line to a focal ancestor who is founder of the group and the original owner of land. These groups are called troncos by residents. In the anthropological literature, they are referred to as non-unilineal descent groups, or ramages, i.e. a descent group in which affiliation is based on choice rather than a fixed descent rule, as in the more common lineage. An individual activates one of a set of possible affiliations thus joining a ramage. He continues to retain latent rights in other ramages, however, which are acknowledged through reciprocal exchanges. Once affiliated to a ramage, an individual receives rights to a house and rights in a mining operation owned and run by the ramage. In order to activate rights to a house and subsistence plot, an individual must register them, i.e., obtain approval by the ramage to which one is affiliated to demarcate an area to be used for these purposes by the household. Once registered, the area can be transmitted to ego's descending generation.

The fragile adaptation of the ramages includes a complex scheduling of production activities to adjust to the variation in rainfall throughout the year, subsistence cultivation, and household and communal gold panning ends. During the periods of intense rainfall, the communal gold panning operations are scheduled. Each member of a ramage, whether man, woman or child, has the right to work in the mina. A capitán is named to organize workers and to keep a record of the days worked by an individual.

At the end of a mining period he goes to Buenaventura with the gold receipts and exchanges them for Colombian currency. On his return, he distributes the returns to each member according to the days of work he or she has contributed. During the communal mina operation, normally three days per week are scheduled for communal labor, with the remainder free for subsistence ends. When the rain slackens, and communal goldpanning is no longer feasible, the bulk of time is given over to tending subsistence plots.

Friedemann's analysis stresses the flexibility inherent in ramage organization as a crucial part of the local socio-cultural adaptation. The key to ramage organization is its optative character: 1) an individual may choose among the various ramage affiliations open to him, and, 2) the resulting ties to non-activated ramages are kept latent by reciprocal exchanges, to later present possibilities for activation. This feature is important because of random and non-random fluctuations in the economic functions of the ramage.

In the agricultural sector of the Pacific lowlands, associative uses of labor are common (Price 1954; West 1957: 131; Friedemann 1966-69: 65-66). According to West:

> The cutting of the bush (la roza, rozando) during maize planting time in the plots of the individual farmers is often a community affair - a kind of minga which Negroes still practice in many rivers below Buenaventura and in parts of the Chocó. A long line of ten or fifteen men swing their machetes to the rhythm of communal chants, stopping occasionally to rest and to quaff deep draughts of guarapo, sugar cane beer. The owner of the owner of the plot cut over by the group is obligated to furnish the guarapo and a meal at the end of the day; he also incurs the obligation to reciprocate when called upon to help his neighbor.

> Although the minga or cooperative labor group is applied to other activities such as house roofing and sluice construction in the mines, its use in bush-cutting seems to apply only to maize cultivation. Such labor groups occur still today among many Andean communities, but such a device is foreign to the Chocó and Waunamá tribes. The institution as practiced by the modern Pacific lowland communities contains many African elements, such as chanting, which involves a lead singer and chorus, beer dinking during profess of work and feasting at the end of the day. According to local inhabitants, the minga, one of the few African cultural survivals of the Pacific lowland is rapidly disappearing as a social institution.
>
> Price 1957: 131

Friedemann comments in the same vein:

> In the periods of the year when the rains fall off and the mining is less intense.... the family subsistence plot is taken care of. These activities require the cooperation of various individuals whose help is reciprocated with the same type of labor in a lapse of not too distant time or as in the case of the elaboration of caña with units of panela that are distributed according to the number of participants, the owner of the cane and the implements. These labor groups are structured in the places where people congregate socially and during velorios or dances in the community or in other neighboring communities.
>
> Friedemann 1966-69: 65-66

Price finds similarities between the associative labor forms in the Pacific and the Atlantic lowlands, with some important differences. He noted a much greater role for woman in the agricultural process in the Pacific lowlands, which following his argument of less acculturation with the Atlantic lowlands, could be attributed to a carry-over of a similar role for women in West African peasan horticulture. Specifically, discussing the minga as compared with the convite, he says that in the former there is a competition among the various cuadrillas based on the quantity of work done by each. The winning cuadrilla is rewarded with an extra portion of rum at the end

of the day's work. Further, he finds that the accompaniment of music provided by three musicians is a characteristic of the minga and contributes a great, festive air to the occasion which attracts workers from far away.

Unlike the situation in El Manzanillo, the Pacific coast minga can become a long term coalition, although he finds that this aspect is disappearing. Apparently by this he means that the same minga group will move from plot to plot and from activity to activity during the slash and burn cycle. On some occasions, the host will give some food and drink and the participants share the cost of the banquet and dance following the work. In the permanent form, there is a director who supervises all of the activities and a subdirector who is concerned with the provisioning of food and drink. Further, the minga can be transformed into a mutual aid society which distributes contributions on the death or sickness of a member. Some mingas may institute the office of treasurer who keeps accounts, pays expenses, and distributes benefits.

Nevertheless, while associative labor forms are found on the Pacific coast, Price states that the preference is for wage labor if there is sufficient cash available.

Our review of the literature on small-scale peasants in the Northern Andean lowlands allows us to make the following tentative conclusions regarding the organization of production. In the Atlantic coastal lowlands and the Cauca and Magdalena Valleys, land access is both through ownership and indirect, largely through the exchange of labor on the neighborin large landholdings for a subsistence plot. This land is located in the tropical lowland zones and is farmed using the slash and burn regime.

Ordinarily familial labor is adequate, especially on the smaller plots up to approximately 3 hectares, but peak periods arise primarily during the land clearing and burning of refuse. Exchange labor will be recruited on these occasions. Festive labor is reported by Price, but its existence appears to be a function of the size of the community. Population growth, social change, and significant cash production or income reduce the efficiency of festive labor or the Atlantic coast. Since Price was writing in the early 1950's it is doubtful whether today festive labor can be found in the region.

Production organization on the Pacific coastal lowlands is different in many significant respects. First, the agricultural adaptation is modified by the heavy rainfall pattern to a "slash and mulch" regime. Second, agriculture is combined with fishing and primitive gold mining as subsistence pursuits. Friedemann's studies reveal a complex corporate production organization in which land access is a function of corporate ownership and indirect usufruct. The vehicle for this corporation is the non-unilineal descent group. Labor recruitment in agriculture and fishing is essentially familiar, with exchange labor used in peak periods. In mining, however, a complex organization of work and collective labor is found. The mina system described by Friedemann is unique in western South America although presumably widespread in the Pacific coastal lowlands of Colombia. It represents a form of production organization-the descent group-which is rare in peasant societies. Goldschmidt and Kunkel, in a comparative analysis of peasant family structure, hypothesized that the absence of descent groups could be attributed to the unwillingness of the state to allow competing local political units and that quarrels and disputes would follow upon such control, given scarce resources and where the same plot is used year after year, unless the group were in fact a

strong political unity (Goldschmidt and Kunkel 1971). The mina corporation supports Goldschmidt and Kunkels argument in that the conditions they propose are absent: the isolation of Pacific coastal communities has meant that the state has virtually ignored events there. The basic function of the mina appears to be the need to schedule the complex set of subsistence activities and to organize the production events.

# CONCLUSION

# CONCLUSION

The purpose of this chapter is to present some conclusions regarding the production organization of Andean peasants and to discuss briefly their implication for the introduction of "new" associative production strategies. The discussion will be divided into two sections dealing with the role of land and labor, respectively.

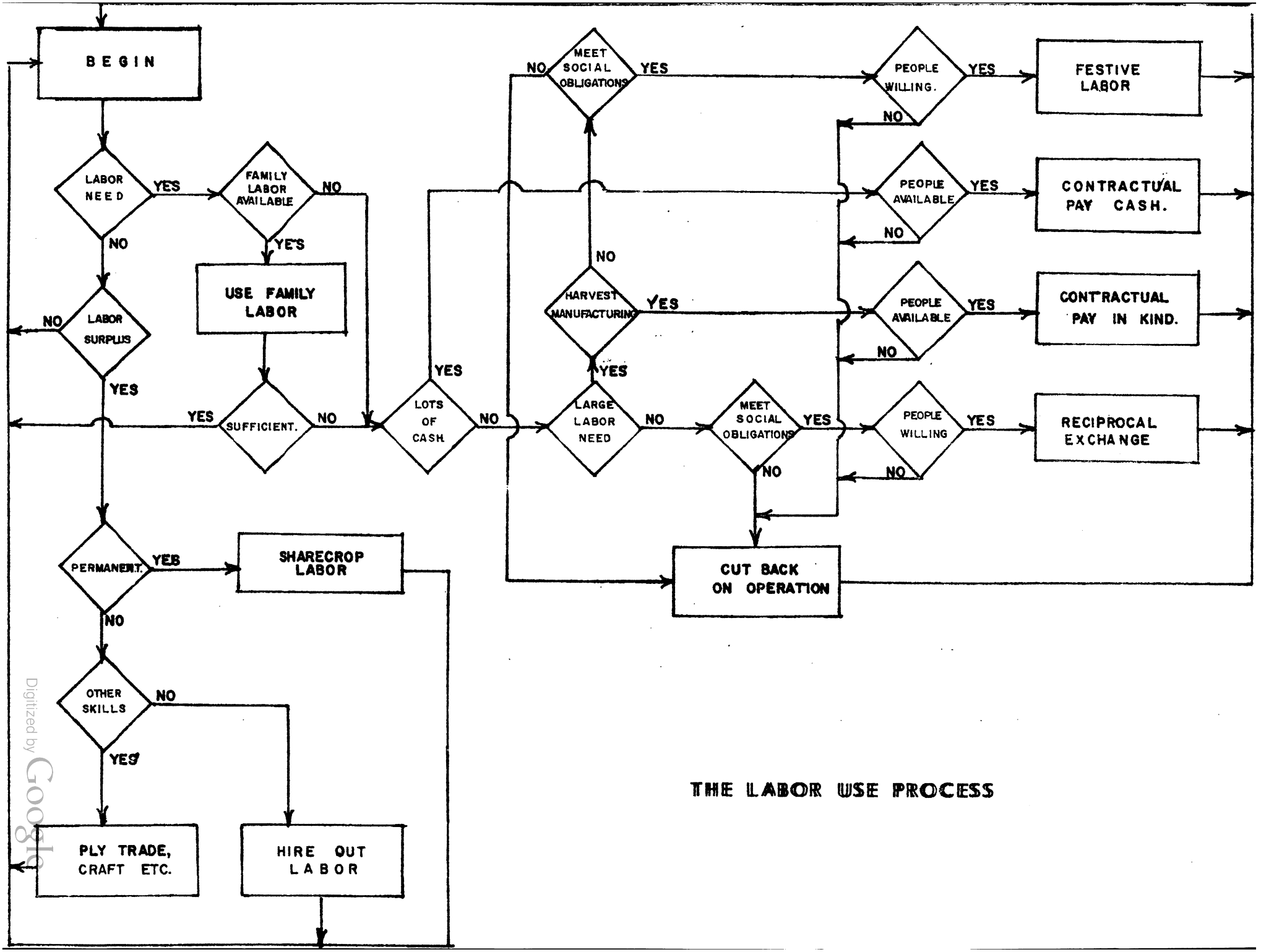
## Labor

Small scale peasants invariably experience periods during the agricultural cycle when their household labor pool is unsufficient, no matter how much excess labor they may appear to have in relation to their limited quantities of land. Another way of making this point is to say that the problem of underemployment is a seasonal problem, intimately related to the ebb and flow of the agricultural cycle. In the Andes, certain peak periods are characteristic of each ecological adaptation. In the slash and burn adaptation common in the tropical lowlands of Colombia and Ecuador, for example, labor needs are greatest during the clearing and burning states and fall of rapidly thereafter. In the chakitaclla adaptation found on the Central Andean slopes, generally above 3000 m. , preparation of the soil is similiarly a labor intensive period. On the fertile, irrigated, highland valley bottoms, where primarily maize is grown, however, the post-Conquest introduction of the plow and oxen, and more recently the tractor, has drastically reduced labor requirements in the soil preparation phase. There the harvest is a major period of labor need.

Other factors may enhance the peak period problem for the household head. Often, in dry season agricultural tasks must be carried out within a very narrow time frame in order to optimize responses to climatic constraints. For example, soil preparation on the slopes of the Central Andes must be closely timed to correlate with the first rainfall. Where rural settlements tend to be nucleated or plots are widely spaced as a diversification strategy, then the commuting distance to the field becomes an important constraint.

I have provided the accompanying flow chart to illustrate the process of labor recruitment from the point of view of a small scale peasant household head. A flow chart is a simple descriptive device which illustrates the steps (drawn here as triangles) leading to courses of action (drawn as squares) in a decision making process. Recent literature in the application of decision theory (Fjellman 1976; Quinn 1971) suggests that simple models of decision rules, such as the flow chart shown here, better approximate reality than complex, mathematical models. The flow chart presented here is a descriptive model based on the research conducted during this study.

Using the flow chart, we can predict the constraints under which each of these forms is chosen. According to the initial decision rule, familial labor will be utilized in all types of situations. During peak periods, however, it is usually not sufficient and other forms of labor must be recruited. If a lot of cash is available, then wage laborers will be hired. Otherwise reciprocal exchange labor between individuals or households will be resorted to. If a labor need is particularly acute or involves extremely tedious work, such as stoop weeding, then




THE LABOR USE PROCESS

reciprocal exchange labor may prove inadequate, requiring more return labor than a household can provide. Assuming the peasant does not have a lot of available cash, he has two options. The first is to contract available labor and pay in kind according to a set formula based usually on labor input. This option is used primarily in the harvest of grains and the elaboration of finished goods, such as the processing of sugar cane into panela . The second option is to invite individuals to a festive work party. This possibility is particularly feasible for an individual who has a large quantity of food and drink at his disposal together with some cash reserves to pay for entertainment.

Some of these courses of action involve hidden costs which are not usually considered by strictly economic analyses of labor use. Indeed, it is often hard to find any mention at all of forms of labor recruitment other than familial and wage labor in economic analyses of labor use among small scale peasants. These hidden costs stem from the fact that often small scale peasants do not have available cash or for other reasons are reluctant to hire wage labor. The available labor supply in a peasant community is finite and usually peak periods of labor demand affect all peasants simultaneously. Thus, although payment in kind, festive labor, and exchange labor offer solutions to peak periods of demand, there is often competition for available manpower.

What are the characteristics of the groups that are recruited by the household and the larger community to meet labor needs? We can answer this question by examining the constraints leading to the selection of a form of labor recruitment.

Reciprocal exchange labor is basically a response by the household head to meet a particular peak period. No division of labor is necessary in that any adult is capable of performing the task. And the size of the group can vary according to the quality of land to be worked. Under these conditions, we would expect exchange labor groups to consist of sets of dyadic relationships to the individual recruiting the group. These groups manifest few differences of authority or power since such distinctions are immaterial to the groups functioning. And they are short term, ending when the immediate reciprocities have been worked out. Although specific principles, including residence and/or kinship are often given as bases for recruitment, no regular recruitment principle is necessary and any ties beween members of a group are incidental to the group's existance.

There is some evidence that suggests that while participation in reciprocal labor is ordinarily short term, it may grow into rather long term arrangements, up to fifteen years in some cases on the Atlantic coast of Colombia (Price 1954; Celestino 1972: 84-85) and often producing permanent social relationships, such as compadrazgo ties. The latter suggests that reciprocal exchange labor affords people the opportunity to test for personal characteristics, such as responsability and compatability, in others which may lead to long term commitments and goals.

In the contractual form, all of the aspects of reciprocal labor exchange obtain, with the exception that an individual recruiting contractual labor is able to offer money or kind in return for labor; this implies a significant difference of power and authority in the calculus. For this reason, many peasants, particularly

unacculturated ones, are reluctant to enter into a contractual arrangement, since it reflects their position in a class/caste hierarchy.

In festive labor, the problem is to bring together a large quantity of labor to meet essentially a short term goal, for example, a harvest of coffee beans, the construction of a house, or the clearing of a slash and burn plot. These tasks often imply a division of labor. There is no clearly defined maximum size, however, which stems from the technology employed. Further, there is no advantage to group stability. Rewards are the food and drink provided by the host, and the opportunity to participate in a festive occasion. Under these conditions, festive labor groups tend to be composed of sets of dyadic relations to the host, verticle, short term, and single stranded.

Certain technological inputs into the household production calculus require very large inputs of labor, as well as coordination, and often specialization, in their construction and maintenance. In this case, the household head is unable to recruit and organize sufficient labor through his personal network of kinsmen, neighbors, friends, and fictive kinsmen.

In the indigenous communities of the Ecuadorian and Peruvian highlands, the delegation of authority to local officials allows them to recruite labor for these purposes. When a need for a considerable amount of coordinated labor is felt, a vote is usually taken in an assembly of household heads and a work party is called. In Peru it is usually referred to as a faena and less commonly a república; in Ecuador, it is called a minga. In such work parties, all male

household heads are required to contribute their labor for an amount of time specified by the assembly. Female heads of households do not ordinarily have to contribute labor in person but are encouraged to send one of the male members of the household or contribute in food or drink. This labor is applied to the construction, maintenance, and renewal of technological resources that figure prominently in each household's production calculus. They include roads, earth works, irrigation systems, and similiar labor intensive public works, as well as projects in benefit of the community, such as schools, churches, and cementeries. The faena, minga, and república are custodial forms of labor recruitment.

In the custodial labor, the constraints are quite different than in the foregoing forms. Usually there is a constant (although periodic) demand for labor throughout the year. The magnitude and complexity of the tasks implies a division of labor and a constant need for decision making. Stable group membership is very important to the success of group custodial labor. Rewards are the long term security of the individual household (or none). In terms of recruitment, efficiency isn't important suited for recruitment by ascribed status. Thus the coalitions under custodial labor, tend to be polyadic, vertical, long term, and many stranded.

Three Cases of Labor Use

In order to understand the influence of social and economic variables in the labor use process, we will examine three representative cases of labor recruitment

in Colombia. The first is Fómeque in the Department of Cundinamarca. Fómeque is a classic minifundio community populated by acculturated peasants who farm quite small plots excessively fractionated through inheritance. It is characteristic of minifundio communities in the highland zones of the Colombian Andes, in the Departments of Cundinamarca, Boyacá, and the portion of the northeastern Cordillera. In southwestern Colombia, communities such as Fómeque are found in the highlands of Cauca and Nariño Departments and the southern part of Huila. In general, this community is representative of a range of acculturated, open minifundio communities in Peru and Ecuador.

The second case is Tierradentro, a region of dense criss-crossing mountains in the eastern part of the Department of Cauca. It is an example of a region which, although lying within the Andean highlands of Colombia, is populated with a relatively unacculturated indigenous population. Tierradentro lies in the tierra fría and páramo ecoligical zones. Geographical isolation and a tradition of belicosity have allowed reserves of Páez Indians to remain unscathed by the forces which brought about acculturation among the peasants in other highland Colombian communities, like Fómeque. Tierradentro reserves, to a very great degree, aproximate closed corporate indigenous communities in Ecuador and Perú.

The last case is San Miguel, a vereda settlement in the coffee zone of Antioquia Department. In the economic and social sphere it is representative

of coffee producing communities in an area above 1000 m. in the Departments of Antioquia, Caldas, and parts of Valle and Tolima. San Miguel had the highest production of coffee in Antioquia Department according to the Coffee Census in 1970. As in other communities in the coffee zone, production is concentrated in the tierra templada, from 1500 to 2000m. in altitude.

These three contexts are similiar in that they are all characterized by small scale production and the primary use of familial labor. Familial labor is not always sufficient, however, as can be discerned from the following table which gives labor recruitmet patterns for Fómeque, San Miguel, and Tumbichucue, a Páez reservation studied by Sevilla-Casas (1974). Familial labor as a percentage of the total ranges from a high of 93 percent in Fómeque to 33.3 percent in San Miguel. The figure for Fómeque should be adjusted downward somewhat since Haney includes reciprocal labor within this category. Assuming that reciprocal labor accounts for perhaps 10 percent of the total labor recruited, we arrive at a more plausible 73 percent.

The differences among the three cases are both economic and socio-cultural. Páez reservations are "closed" in the sense that they have a corporate land holding structure, retain jurisdiction over the free disposal of land within their boundaries, and are strongly opposed to outside contact with their White neighbors. Fómeque and San Miguel, on the other hand, are communities in which land is free to be bought and sold and peasants are in continuous interaction with the larger society.

Labor Recruitment among Small-Scale Peasants in Three Colombian Communities

| | Tumbichucue | Fómeque | San Miguel |
|---|---|---|---|
| Familial Labor | 66.5 | 83/a | 33 3 |
| Exchange Labor | 9.4 | ? | |
| Contractual Labor | 2.0 | 17 | 66.7 |
| Festive Labor | 22.1 | | |
| | 100.0 | 100.0 | 100.0 |

a/ includes reciprocal labor

Sources: For Tumbichucue, Sevilla Casas 1976: 40; for Fómeque, Haney 1969 Table IX-10, pp. 251-252; for San Miguel Economía Cafetera Anexo Vol. 6, pp. 18-19) (derived from expenditures for labor on fincas from one to ten hectares).

In the economic sphere, San Miguel specializes in the production of coffee, a cash crop perfectly adapted to the ecological setting of the vereda with a very high market value as compared with other crops produced locally. Some coffee is grown in Páez reservations, but it is not the sole orientation of peasants there who tend to grow a variety of crops in the lower zones.

How do these and other variables enter into the process of labor recruitment and its social correlates?

The example of San Miguel shows that specialization in a cash crop with a high market value can result in a diminution in the recruitment of exchange, festive, and contractual labor paid in kind. This tendency was first noted by Erasmus in 1956 as an effect of the spread of the money economy. Erasmus found that festive labor was disappearing in Latin America and that wage labor was also tending to displace exchange labor because it eliminated the inconveniences of the latter, that is the necessity of finding individuals willing to enter into an exchange, the need to pay back labor at a later date, and the problem of adjusting for differences in size of land holdings.

Fómeque and Páez reservations are not totally self-sufficient subsistence economies and there is production for sale. Coffee is grown among Páez and variety of fruit and vegetable crops are grown for market in Fómeque. There are a number of constraints on production found in these communities that are universal among small scale peasants. They include the lack of access to subsidized credit markets, low educational levels, a traditional technology, and , in general, the problem of smallness of scale given other constraints, which leads to considerable risk. Risk reducing

and "satisficing" strategies as production orientations are quite rational in view of these constraints. They include the diversification of crops, concentration on subsistence production, and the withholding of foodstuffs from market in order to exchange them among members of the group in which one interacts (see Haney 1969: 334, 290-291; Ortiz 1973).

A second major constraint lies in the class relationships of rural communities. In Tierradentro there are important class distinctions between Páez Indians and acculturated colonialists referred to locally as "Whites". Ortiz noted that "the investment of land and labour in coffee bushes brings a yearly cash reward, but the accumulation of money, particularly if it is not to be spent on fiestas, is disapproved by the community... to great a concern in increasing one's earnings suggests a desire to emulate the Whites which is frowned upon (Ortiz 1973: 191-192)." Thus, although in Fómeque and in Tierradentro there is production for sale, social and economic constraints reduce productivity to levels where rarely is there sufficient cash available to recruit wage labor. This is also consistent with Erasmus' prediction that lack of cash is a principle factor in the survival of exchange labor in a money economy.

An important strategy found at the level of the collectivity which is designed to enhance the prospects for survival of the individual household is the norm of reciprocity, the effects of which are found in production and distribution processes. It is important to understand the basis for reciprocity as a survival strategy among small scale peasants. Contrary to the opinion of many observers of Andean rural

society, particularly the Indianista writers of Peru, such a strategy is neither necessarily cultural in origin nor is indicative of a general propensity toward cooperative organization (see Forman 1976). That it is not specifically cultural is evidenced by the existence of reciprocal norms among Colombian peasant of African, Spanish, and indigenous origin. Furthermore, the norm of reciprocity is specific to contexts defined locally as critical for survival. One example is the extension of reciprocity to the requirement that an individual must enter into an exchange labor agreement when asked (Haney 1969: 218). A second is the separation of distribution among the Páez into two spheres, one for coffee which can be sold, and one for food which must be exchanged among coalitions of Páez, with reciprocal norms governing the latter.

In order to understand the implications of a norm of reciprocity let us look at the exchange labor form in Fómeque and Páez reservations. Exchange labor in Tierradentro is resorted to when the help of one or two individuals is required and they are available. It is used mostly for tasks on smaller plots where the labor input is not so great as to make the reciprocal requirements impossible. Harvesting coffee on small to medium size plantations which produce up to perhaps 40 arrobas (1000 lbs.) is commonly done using exchange labor. Haney does not specify the tasks for which exchange labor is recruited in Fómeque, but he indicates that it is relied upon heavily by the smaller holders (Haney 1969: 218, 249-255).

In order to recruit exchange labor there are two kinds of costs which enter

into the process. The first is the necessity of having met the social obligation at the level of the collectivity. Local social systems can be seen as mechanisms through which individuals adapt to their environment. Collective norms emerge here; the norm of reciprocity is an example of such a norm. Other norms enforce individual identification with the goals and objectives of the collectivity. Commonly in Andean societies, participation in ritual occasions, particularly the ubiquitous fiesta, is required to indicate group membership. Thus, the necessity to participate on these occasions involves costs which must be "paid" if one is to obtain the benefits of group membership.

A second type of cost is that which goes into the creation and maintenance of relationships between individuals (as opposed to collective relationships). The process of establishing these relationships is defined locally or shared within larger reference groups. Such relationships, called dyadic contracts in the anthropological literature (see Foster 1961), are extremely common in peasant societies, in the absence of corporate groups, such as the African lineage and the mina on the Pacific coast of Colombia. In Tierradentro, for example, social relationships are created and maintained by inviting individuals to gatherings at one's home where guarapo, fermented sugar cane beer, is served. There is a direct cost involved which includes the time, labor, and land which must be set aside to produce sugar cane, as well as the time and effort needed to process it into guarapo.

There is somewhat more indirect cost which must be considered as well. This cost stems from the commitments of the group to the use of exchange labor as a

solution to labor needs. These commitments as Haney argues (1969:218), constrain peasants from accepting outside employment and from entering into sharecropping arrangements, lest their loyalty to the group be questioned. These commitments also create problems in some cases with the scheduling of activities: "For situations involving supplementary enterprises or operations with flexible time schedules, this interdependence may not create many difficulties. But for high value crops like tomatoes, in which the timing of operations is a crucial factor from the standpoint of quality and quantity of production, as well as prices received, individual families must synchronize their operations very carefully with the other parties in the work group (Haney 1969: 254)."

The benefits of exchange labor must be understood as a function of the smallness of scale of the peasant producers and their membership in social groups which enforce reciprocal norms. While labor is committed to the group, and alternative uses of labor must be foregone, assuming they exist, nevertheless, one can be more or less assured that exchange partners will be available at critical points. Furthermore, although empirical studies of the phenomenon do not exist, it can be hypothesized that a group norm of reciprocity increases the efficiency of exchange labor relative to wage labor (see Guillet 1974).

Festive labor is found only in Tierradentro, among our three cases. The only other area in Colombia where it has been documented with some frequency is in the lowlands of the Pacific and Atlantic coasts where it apparently is disappearing (West 1957: 131; Price 1954). In Tierradentro, festive labor parties, called mingas,

are the preferred form of labor recruitment where labor needs are particularly large, the task must be completed within a restricted period of time, and/or the task is particularly tiring and tedious. These requirements are met in the clearing and weeding of fallowed and planted fields and the weeding of permanent coffee plantations. On these occasions, between eight and fifteen individuals, depending on the magnitude of the tasks, are invited to a minga. The bulk of the work occurs in the morning. It stops in the early afternoon for a festive meal prepared by the wife and/or daughter of the host. It is followed by drinking and often dancing which may go on all night long. The provision of the festive component to the labor is what distinguishes the minga from the exchange form, effectively satisfying the obligation of the host to reciprocate labor at a latter date.

From the perspective of the host, the costs of a minga include a small amount of cash together with food, sugar cane beer, and an animal to slaughter. Most of these items can be produced on the land and peasants commonly keep animals in the Andes as a form of liquidable savings to be used for exactly this kind of situation. The host must also have a wife or a daughter who can prepare the food and drink.

Ortiz has calculated the costs of minga labor as compared with those for wage labor and finds that the costs of the former are a little higher than the latter (1973: 157). Although the minga system is less efficient from this point of view, it has two advantages: first, it is a form of entertainment for all the

participants, including the host, and secondly most of the costs can be provided in kind so that little actual cash is needed at the time. The latter is particularly important since mingas are often held during periods when cash is scarce.

The main advantage to participants in a minga is the opportunity it provides to participate in a feast and at the same time to comply with one's social obligations of cooperation. The latter is particularly important in closed corporate communities where close social bonds link individuals and foster group identity and cooperation.

There is admittedly variation among Tierradentro reservations in terms of group cohesion and the adhesion to collective norms of reciprocity, prestige, and entertainment. The examples of San Miguel and Tumbichucue are illustrative in this regard. The figure of 22 percent for festive labor as a proportion of total labor input in Tubichucue implies that it is a fairly common form of labor recruitment. In San Miguel, however, of 26 families interviewed by Ortiz only 12 had called mingas during the last year, giving as reasons sickness, lack of money or an animal, lack of need, or the location of one's land. It would appear that mingas are more common in Tubichucue than in San Miguel. There do not seem to be major differences in the economic situation of the two communities, except for more explotative marketing arrangements which affect Tumbichucue. The latter may possibly affect the calculation of cos-benefits somewhat. But there are significant differences in the socio-political order: the Cabildo de Indígenas is much stronger in Tumbichucue in exercising its rights and obligations than in San Miguel, an indication of more cohesion and stronger social bonds. This may explain in part the differences

in festive labor use which is strongly influenced by social factors such as these.

No matter what the internal variations among Tierradentro reservations, there is no doubt that they are much more cohesive and autonomous than Fómeque and San Miguel. And the latter illustrates the demise of festive labor recruitment as cash specialization and acculturation creates changes in social relations. The enterrainment and prestige aspects of hosting and participating in festive labor can exist only in a relatively closed social system which defines local standards for these functions. Where social change introduces regional or national standards for status and entertainment then we can expect that, as Erasmus predicted, festive labor will diminish. An indication of this trend can be found in San Miguel through the emergence of a group of what Ortiz calls "progresive" Indians . They disdain the traditional minka and exchange labor forms and have doubts about their efficiency and their own ability to reciprocate the labor, given the quantities of labor they require. They do not spend large quantities of money in giving fiestas and prefer to spend their income on processed food, clothing , and the improvement of their homes and fields (Ortiz 1973: 177-78). This trend has been occuring for some time in communities like Fómeque and for a very long time in coffee communities.

One of the initial impressions during the study was that there is a continuity beween APS, (no antecedent to explain acronym) found in aboriginal, Colonial, and Republican societies and APS found in the present. For example, contemporary labor forms such as reciprocal exchange labor (ayne, cambio mano, ranti), reciprocal

festive labor (the "private" minga of the Páez Indians of Colombia, convite), and custodial labor (the "public" minga of Ecuador, the faena of Peru), can be traced to societies found at the time of the Spanish intrusion, such as the Inca and Chibcha, pre-Conquest societies, such as the Cara, Panzaleo, Puruhuá, and Cañari which were subsequently conquered by the Inca, and to the indigenous homelands of West Africa from whence came the slaves supplying labor for lowland and middle altitude haciendas, plantations, and mines.

These continuities are often used as explanations for the existence of contemporary APS among Latin American peasantry. Such an explanation however, reduces peasants to conservative Skinnerians whose present behavior is determined by past experience. The data in this study suggests, alternatively, that peasants are rational actors who devise strategies calculated to produce results in a given situation. There is, thus, no "tendency" to cooperation or association if such a trait implies adherance to norms found in societies of the past.

This finding has important implications for the promotion of a "modern" APS such as collectives and cooperatives. It is often assumed, either implicitly or explicitly, that because a contemporary peasantry is culturally linked to a past society with demostrable patterns of association in the production process, there is a proven basis for the promotion of contemporary APS. Such an assumption is rejected by the results of this study. What might be a better strategy is to use contemporary APS as analogous explanations of the cost-benefirs associated with the innovation. This would imply, however, that a thorough understanding of

the pattern and process of traditional APS must be had before they are used to model "modern" ones.

The evaluation of a given form of labor involves both economic and social costs and benefits. A narrow microeconomic analysis of essentially material costs and benefits would therefore be of limited use. As an example, in Páez reservations, entertainment, prestige, and the adherance to collective norms of cooperation are elements in the calculus of host and participant in festive work parties. These elements offset the "economic" inefficiencies of festive labor and make it a "rational" form of labor recruitment.

The costs and benefits of labor forms are highly influenced by the nature of the social setting in which peasants live, work, and die. The dichotomous typology of Wolf of open and closed communities in Latin America indicates to some degree the contexts within which reciprocal labor forms can be expected to vary. In the closed corporate Páez reservations local criteria for entertainment and prestige were strong incentives for festive labor. In Fómeque and San Miguel, on the other hand, entertainment and prestige are obtained in other, more urban-oriented, social fields. Festive labor is thus less attractive there. We should be careful about placing too much importance on rather static typologies such as that of Wolf. Rural communities in Latin America are not static but rather dynamic as Ortiz' account of the emergence of a "progressive" group of Indians in a Páez reservation who disdain festive labor shows. But at any rate careful attention must be paid to the nature of the social setting within which peasants interact in order to uncover the rationality of their strategies of labor use.

The clearest example of the influence of the social setting is the context it provides for collective strategies designed to ensure the survival of individual peasant households. It is here that the local group can set and enforce reciprocal norms in those spheres of activity which it deems most crucial. It is important to note, however, that the existence of reciprocal norms does not imply that reciprocity and cooperation characterize all spheres of activity. In Páez reservations, food is exchanged among coalitions of Páez Indians and cooperation is expected in this sphere. Other items, however, such as coffee and clothing, are not exchanged in the same way, and no norms of reciprocity are broken if they are purchased or sold. Reciprocal norms are in essence strategies designed to apply to specific situations which the group decides are essential to its survival.

Lastly, reciprocal labor is a common solution to peak period labor needs, occurring with frequency in peasant societies throughout the world (Georgescu-Roegen 1969). What is often over looked in descriptions and analyses of its use is the time, effort, cash, and kind that must be expended in the necessary creation and maintenance of social relationships. The allocation of land, labor and time to produce the food and drink is a direct material cost which ultimately reduces the number of production factors which can be allocated to subsistence and/or cash crop production.

Land

One of the major historical processes in the Andes is the transformation of communal control over land to individual control. This process occurs through the integration of local communities into the world market economy and the maximization of individual interest to the detriment of communal control (Polayni 1944; Hardin 1968). Where these trends are found in mountainous regions, there is usually a degradation of the environment through erosion, landslides, etc. (Eckholm 1975).

This transformation in the Andes is highly discontinuous, varying along ecological, economic, and political lines. There is, for example, a range of degrees of both communal and individual control over land. And, communal control in the Central Andes has averted environmental degration found in Ecuador and Colombia. In the following table, we examine the interplay of key variables in producing a given form of land tenure among Andean peasants.

Communal control over land can be broken up into two types: (1) where the community allows some individual control through the extension of individual use rights, but limits these rights to members of the community, and (2) where collective use is granted without differentiation to all members of the community. Communal control, of both types, occurs most frequently among "indigenous" communities such as the Peruvian comunidad campesina, the Ecuadorian commune, and the Colombian reserve. These communities fall under special national legislation that promotes and gives legal protection to communal forms of land tenure. Since local groups, such as the ayllu obtained land in usufruct from the state (Inca, Chibcha,...) then communal control over land is an innovation introduced by the Spanish

## Land Tenure Patterns Among Small Scale Peasants in Ecuador, Colombia, and Peru

| Location | Altitudinal Zone | Agricultural Regime | Land Tenure | Comments |
|---|---|---|---|---|
| I Central Andean Highlands (Peru) | 1-3.000 m. | Intensive plow agriculture irrigation, maize | individual control | "comunidades campesinas" |
| | 3.300-4.000 m. | tubber; sectorial fallowing | community control; individual usufruct | |
| | 4.000+ | Grazing, "commons" | Community control; undifferentiated usufruct | |
| II Northern Andean Highlands (Ecuador and Colombia) | | | | |
| (a) Antioquia | 1.000-2.300 m. | intensive coffe cultivation | individual control | |
| (b) Acculturated Peasants | 1.500-3.200 m. | Hoe and plow; internal fallowing; rainfall/irrigation | individual control | |
| (c) Peasants falling under indigenous legislation | 1.500-3.200 m. | Hoe and plow; internal fallowing; rainfall/irrigation | community control; individual usufruct illicit sale | "reserves" in Colombia "comunes" in Ecuador |
| III Northern Andean Lowlands (Colombia) | | | | |
| (a) Pacific Coast | 0-1.000 m. | slash and "mulch" | community control individual usufruct | "mina" |
| (b) Atlantic Coast Cauca, Magdalena Valleys; | 0-1.000 m. | slash and burn | individual control | |

and reinforced under Republican governments.

The mina descent groups in the isolated reaches of the Pacific coast of Colombia are an exception to this pattern. Rather than responding to pressures from the state, the collective control of land in the mina emerged as a cultural adaptation to the ecological constraints of the Pacific coast. These constraints include: (a) a mixed economy of subsistence agriculture, gold panning, and fishing, (b) a complex annual calendar of production activities and,(c) the need to organize land and labor given (a) and (b). The mina is important as an example of an autonomous form of the associative use of land and labor with the product redistributed according to labor input.

Besides the distribution in horizontal space of small scale peasant communities with communal forms of land tenure, there also an important vertical dimension that is often ignored by "flat land" social scientist and development personnel (see Forman 1976). We refer here to the succession of vertical ecological zones, characteristic of the Andes, each of which requires a specific cultural adaptation, including interrelated forms of labor, land, and technology. The vertical distribution of forms of land tenure is particularly notable in the Central Andes. Communal control is most common in the higher ecological zones. In the highest, non-cultivable, puna zone, over 4000m. land is used for pasture. The community either operates it as a "commons", or rents it out in sections to community members, in both cases retaining ultimate control. In the tuber zones, between approximately 3.300-4.000 m. in altitude, communal control is manifested through sectoral-fallowing systems in which land is guiven in usufruct to

household heads who are members of the community. Communal control over land in these two zones and the use of sectoral fallowing in the tuber zones has, in the Central Andes, averted the degradation of the fragile mountainous environment. This is not the case in the Northern Andes, where erosion is endemic.

Beneath the tuber and the pasture zones, as one moves into the fertile, usually irrigated bottomlands of the Central Andes, individual control replaces communal control over land use. Here ecological conditions are more suitable for the intensive cultivation of market crops and communal control is not as necessary to maintain soil fertility. These conditions are met in the region of Antioquia in Colombia, where coffee cultivation allows an intensive use of the land of mountain slopes without dangers of environmental degeneration. Elsewhere, individual control is also found in acculturated communities and, although discouraged by legislation, occurs together with weak forms of communal control in the indigenous communities of the Norther Andes.

Communal control over land is an important means of associating production factors. It implies that collective strategies set by the group with respect to land use are shared and sanctioned. Thus, while an individual is somewhat limited in the use to which he can put his land, he shares presumably in the benefits of communal control. These benefits are quite clear in the renewability of the Central Andean slopes through communal control and sectorial fallowing.

Peasants are quick to take advantage of other forms of association vis a vis

land. Where legislation is favorable, peasants will form corporate groups to gain legal protection over land. In Ecuador, peasants have used the cooperative format to amass capital and gain long term credit in order to purchase land. And peasant movements are a form of association that allows groups to defend and recuperate land which they claim as their own through old titles or through a revolutionary principle. These forms of association, it should be stressed, do not necessarily imply that collective use will ensue. Often they allow land to be obtained in order that it be turned over to individual control or to individual control protection.

Legislation promoting and giving legal protection to communal forms of land tenure is not a necessary condition for these forms to obtain, as the case of the mina has shown. The mina, however, is a special case. It is found in a region characterized by geographical, social and political isolation, and it is conceivable that if this isolation were broken the ability of the mina would be threatened. In the Andean highlands, however, legislation has to some degree fostered communal forms of land tenure primarily through the protection it offers. It is also in these areas, nevertheless, where ecological constraints make communal control feasible.

Individual control over land does not imply that peasants will not associate to meet production ends. Informal arrangements between peasants to associate their resources, including land, are not uncommon. As an example,

the cost-share lease form of sharecropping comes to mind. It allows the consolidation of capital and the reduction of risk. For the latter reason, in particular, it is more preferred as an indirect means of obtaining land then renting arrangements.

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# EL CONTEXTO SOCIAL DE LOS SISTEMAS DE PRODUCCION CAMPESINA EN COLOMBIA

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Bogotá, Colombia
Abril, 1977

# EL CONTEXTO SOCIAL DE LOS SISTEMAS DE PRODUCCION CAMPESINA EN COLOMBIA

Los sistemas de producción en las economías campesinales se consideran generalmente como un problema de la combinación de factores de producción controlada por el jefe del hogar. Hay una serie de modelos de estrategias de producción que sigue esta línea de pensamiento. Theodore Schultz (1964) tiene la opinión que los campesinos son agricultores "pobres pero eficientes", quienes manipulan los factores de producción de una manera muy racional y eficiente. Una opinión contrastante, sin embargo, es la de A.V. Chayanov (1966) quien ha elaborado un modelo de la economía campesinal basado en sus investigaciones de los campesinos rusos. Según Chayanov, la base de la economía campesinal es la finca familiar, una unidad económica que explota los miembros de la familia como su fuente principal de mano de obra en la producción para la subsistencia y la satisfacción, un "estado constante de bienestar" que es consistente con las necesidades como percibidas por la familia. Cuando ya se ha llegado a este nivel, cualquier aumento de producción es superfluo y no deseado por el aumento de trabajo penoso que requiere. El nivel establecido por el equilibrio entre las necesidades percibidas por la familia y la labor necesaria para obtener, es un punto crítico; más allá de este punto la finca familiar no busca maximizar la productividad ni las ganancias en el sentido neoclásico de la empresa de comercio.

Cualquiera que sea la estrategia de modelo de producción utilizada, resulta en una visión de la economía campesina en la cual el efecto cumulativo de un conjunto de decisiones de producción del hogar se revela en la data macro-económica agregada.

Donde esta manera de aproximarse al asunto prevalece, las variaciones con las pautas de producción cumulativas son un resultado de variaciones en el estado de ciertas variables claves en el hogar, en particular, la composición del grupo doméstico, el tipo y el área de la tierra disponible, y su etapa particular en el ciclo doméstico.

Tal visión aisla el hogar de la matriz socio-cultural en la cual está, en realidad, inexplicablemente enredado. Como resultado, se ha creado sobre la unidad de producción del hogar, qua economía campesina un conjunto de suposiciones que son o engañosas o erróneas. Estas incluyen las ideas de que el hogar campesino es una unidad de producción contenida en sí, orientada al presente, que responde a niveles de subsistencia que ello crea, y que actúa sola para asignar los factores de producción cuando y como los restringimientos externos requieren.

Quisiera sugerir en este trabajo una visión de la economía campesina que da énfasis al contexto social de producción: las causas y los efectos de las relaciones sociales que emergen durante el proceso de producción junto con el impacto del grupo social en el cual los campesinos viven y trabajan. Esta visión de producción será elaborada utilizando la literatura sobre los campesinos colombianos.

## Una definición operacional del campesino

Mi concepto aquí de "campesino" corresponde al productor agrícola de pequeña escala que controla una cantidad limitada de tierras, labor y capital. Restrinjo mi discusión a los campesinos en Colombia que tienen acceso hasta 10 hectáreas de tierra. Esta limitación incluye el sector minifundista de la economía agraria que explota 57 por ciento de los terrenos nacionales pero que es dueño de un solo seis por ciento

de estos terrenos, lo que Haney caracteriza de "escasos de capital, intensivo en mano de obra, unidades agrícolas de familias basadas principalmente en niveles de vida de subsistencia (1959: 5)". Los obstáculos al incremento de producción que yo veo, se concentran en la pequeña escala de estos factores y en los generalmente bajos niveles de educación halladas entre el campesinado colombiano, en vez de cualquier pauta cultural o subcultural intrínsicas a los campesinos. Las causas de estos obstáculos, según mi opinión, están arraigados a la economía política de las sociedades campesinales.

El contexto social de la producción campesinal surge de los restringidos que lo pequeño de la escala impone y de las características de los asentamientos de campesinos, en otras palabras, el contexto socio-económico de las localidades donde los campesinos viven, trabajan y mueren. En el caso primero, los campesinos crean relaciones sociales para obtener, mantener y defender su acceso a los factores básicos de producción. Estas relaciones sociales implican unos gastos y el campesino debe evaluar continuamente el tiempo, el dinero y especie que tienen que ser expedidos en estos gastos en vista de la vuelta que proveen. Segundo, la naturaleza del grupo social en el cual vive el campesino influye en los gastos sociales y económicos y vueltas de un conjunto de estrategias de producción.

## Un modelo general del uso de mano de obra

Para examinar el contexto social de la producción campesina, me enfocaré en la mano de obra. En las economías campesinas, el jefe del hogar generalmente puede contar con los miembros del hogar que lo componen para proveer la gran mayoría de la mano de obra necesaria durante el año. Durante este mismo tiempo, parte o toda

su fuerza de mano de obra puede ser redundante, es decir, no habrá una demanda suficientemente grande para emplear a todos los miembros del hogar. El ejemplo más típico de este fenómeno es la ocurrencia de "períodos muertos" durante el ciclo agrícola y/o la expansión de operaciones agrícolas. Sin embargo, durante períodos de actividad intensiva en el ciclo agrícola, la mano de obra del hogar puede ser insuficiente para satisfacer la demanda. En estas ocasiones el jefe del hogar tiene que reclutar mano de obra adicional disponible para satisfacer la demanda o encontrar estrategias para utilizar con el mayor provecho el exceso de mano de obra. Hay varias estrategias disponibles a estos fines y varios restringimientos involucrados en la selección de ellas. El proceso del uso de mano de obra es en efecto, un proceso de hacer decisiones muy complejas.

Para ilustrar el proceso del uso de mano de obra, desde el punto de vista del jefe de hogar campesino de pequeña escala, he incluído aquí el gráfico de "flow". Un gráfico "flow" es un sencillo invento descriptivo que ilustra los pasos (dibujados aquí como triángulos) que conducen a planes de acción (dibujados como cuadros) en un proceso de hacer decisiones. La literatura actual de la aplicación de la teoría de decisiones (Fjellman 1976; Quinn 1971) sugiere que los modelos sencillos de reglas de decisión, como el gráfico "flow" dibujado aquí, se aproximan mejor a la realidad que los complejos modelos matemáticos. El modelo dado aquí es descriptivo y basado en la literatura económica, social y antropológica acerca de los campesinos colombianos.

Para comprender mejor las formas del uso de la mano de obra que se hallan en el campo colombiano, he utilizado una clasificación que se basa en los trabajos de Udy (1969) y Erasmus (1959). Cada forma corresponde a un plan de acción dibujado como cuadrado en la gráfica de "flow". La mano de obra de la familia equivale a la mano de obra del hogar, a la cual ya se ha hecho referencia. La mano de obra de intercambio es recíproco de la mano de obra en la base del día pagado por día trabajado. En Colombia, esta forma se llama o cambio de mano o vuelta de mano, o brazo vuelto o prestar brazo. La mano de obra festiva es básicamente una forma recíproca en la cual la obligación inmediata para reciprocar se cancela por la provisión de un elemento festivo: cantidades suficientes de comida y bebidas para una fiesta junto con la provisión de música, discos o un conjunto, para bailar. La forma festiva de la mano de obra se llama generalmente, minga o convite en Colombia. Aquí hacemos una distinción entre dos formas de mano de obra contractual: (a) la pagada en efectivo, ejemplo: jornal y (b) la pagada en especie como la división de una cosecha según la mano de obra dada.

Estas categorías se refieren a formas de mano de obra conseguidas por el jefe del hogar en respuesta a una demanda. Un conjunto de planes de acción diferente se utiliza para resolver el problema de un exceso de mano de obra: trabajar en compañía, ofrecerse por mano de obra jornal, ejercer un oficio, artificio, etc.

Lo demás de la discusión se concentrará en la cuestión de las estrategias para el reclutamiento de la mano de obra. Podemos comenzar esta tarea por el estudio de las situaciones que necesitan el reclutamiento de la mano de obra. En Colombia es posible discernir tres regímenes agrícolas básicos de los campesinos de pequeña escala; la

agricultura temporal de la roza en las tierras bajas húmedas hasta la altura de 2.000 metros; la agricultura temporal que utiliza la tecnología del azadón y el arado; y el cultivo permanente de los cafetales que utiliza esencialmente la tecnología del azadón. En cada uno de estos regímenes, hasta entre las más pequeñas tenencias, hay períodos del uso de la mano de obra intensivos que corresponden a ciertas faenas características en el ciclo agrícola. En la agricultura de la roza por ejemplo, el corte y la quema del crecimiento de primaria, y, hasta menor grado, secundaria, es una tarea del uso de mano de obra intensiva. En la cultivación con azadón y arado, la cosecha representa un período del uso de mano de obra intensiva, particularmente cuando hay exigencias de horario. Por ejemplo, en una comunidad en las tierras altas de Boyacá, Orlando Fals Borda contó hasta 17 personas en la cosecha de maíz de una propiedad de dos fanegadas; algunos estaban contando las cañas, otros seleccionando las mazorcas, otros desamerando, y otros empacando el producto (Fals Borda 1957: 172). En la cultivación de los cafetales se precisa más mano de obra durante la preparación de la tierra para sembrar los cafetales, y luego, cuando ya comienzan a producir la cosecha de los granos, en la cual se utiliza mucha mano de obra. Según la regla de decisión, la mano de obra familiar será utilizada durante estos períodos intensivos, sin embargo, generalmente no alcanza con la mano de obra familiar y hace falta buscar jornaleros. Si hay mucho dinero reunido, entonces la mano de obra de jornal será reclutada. De otra manera se puede recurrir a la mano de obra de intercambio recíproco entre individuos u hogares. Si la necesidad de mano de obra es muy grande o el trabajo es muy tedioso, como el de sacar mala hierba, entonces el intercambio recíproco puede ser insuficiente o puede requerir demasiada mano de obra reciprocada que el jefe del

hogar no podrá proveer. Si se supone que el jefe del hogar no tiene mucho dinero, tiene dos opciones. La primera es de contratar mano de obra disponible y pagar en especie según una fórmula rígida basada en la mano de obra proveída. Esta opción se utiliza más frecuentemente en la cosecha de cereales y en la elaboración de productos finales, como la elaboración de la caña de azúcar para obtener la panela. La segunda opción consiste en llamar una fiesta para atraer la mano de obra en cantidad. Esta opción es muy factible para la persona que tenga reservada una gran cantidad de comida y bebida junto con una cantidad suficiente de dinero para pagar la música.

Algunos de estos planes de acción demandan gastos escondidos que generalmente no se incluyen en un análisis estrictamente económico del uso de la mano de obra. Muchas veces es difícil hallar cualquier mención de formas de mano de obra reclutada aparte de la familiar y la jornal en los análisis económicos del uso de mano de obra entre los campesinos de pequeña escala. Estos gastos escondidos vienen del hecho de que muchas veces los campesinos de pequeña escala no tienen los recursos en efectivo o por otras razones son renuentes de emplear jornaleros. La oferta de la mano de obra es finita en una comunidad campesina y durante los períodos intensivos todos los agricultores están afectados igualmente. Así que el pago en especies, la mano de obra festiva, y la mano de obra de intercambio ofrecen soluciones para la demanda de períodos intensivos y hay muchas veces una competencia para conseguir la mano de obra disponible.

Varios factores pueden restringir o facilitar el reclutamiento de la mano de obra. El valor del agasajo de la mano de obra festiva es, generalmente, bastante grande para dejarle reclutar virtualmente toda la mano de obra necesitada.

En la mano de obra de intercambio y en la festiva se crean y se manipulan relaciones sociales que delinean un grupo social dentro del cual uno obra entre sí para persuadir al otro, y así entran en una relación de intercambio cuando la competencia es fuerte. Estas relaciones involucran en aquel sentido, la participación en actividades del grupo como las fiestas públicas, y en este sentido, procedimientos reconocidos para establecer relaciones diadicas (Foster 1965) generalmente por regalos y generosidad y muchas veces por el expendio de tiempo, dinero y especies. En este caso, involucren las calculaciones de los gastos de capital y los beneficios de vuelta.

Tres casos del uso de mano de obra

Para comprender la influencia de las variables social y económica en el proceso del uso de mano de obra, examinaremos tres casos. El primero es Fómeque, comunidad ubicada en el clásico departamento de Cundinamarca. Esta es una comunidad de minifundios poblada por campesinos aculturados que cultivan terrenos pequeños excesivamente fraccionados por la herencia. Hay tres zonas ecológicas en Fómeque: la tierra templada de 1.500 a 2.000 metros donde la producción es óptima y la mayoría de los habitantes vive; la tierra fría de 2.000 a 3.150 metros y el páramo alpino de 3.150 metros en adelante. Fómeque fue estudiado en 1969 por Haney, un economista agrónomo con una habilidad de ver el contexto social en las actividades de producción. Es una característica de comunidades minifundistas de las zonas altas de los

Andes colombianos, en los departamentos de Cundinamarca, Boyacá y la porción de los departamentos Santander y Norte de Santander que se encuentran en la cordillera noreste. En el suroeste de Colombia, incluye las zonas altas del Cauca y Nariño y el sur del Huila.

El caso segundo es Tierradentro, una región de densas montañas entrelazándose en la parte este del Departamento del Cauca. Tierradentro es un ejemplo de una región que se encuentra dentro del área mayor de los Altos Andes pero que es habitada por una población indígena relativamente no aculturada. Tierradentro está ubicado en las zonas ecológicas de tierra fría y páramo. El aislamiento geográfico y una tradición de agresividad han dejado a las reservas de indios Páez fuera de las influencias que trajeron la culturación a los campesinos de otras comunidades andinas, como Fómeque. Unas investigaciones actuales por los antropólogos Sevilla-Casas (1976) y Ortiz (1973) han documentado ampliamente la organización de la producción de los Páez.

El último caso que analizaremos es San Miguel, una comunidad o vereda en la zona cafetera de los departamentos de Antioquia, Caldas y partes del Valle y Tolima. Esta área fue colonizada por una ola de inmigración que surgió de los Centros de Santa Fe de Antioquia, Anserma y el Valle de Aburrá durante el período colonial (Parsons 1968). San Miguel fue el sitio de mayor producción del café en el departamento de Antioquia según el censo de 1970. Como otras comunidades de la zona cafetera, la producción se concentra en la tierra templada, de 1.500 metros a 2.000 metros de altura. Los datos del censo del Café y de un detallado censo de los hogares que fue compilado por la Federación Nacional de Cafeteros (Economía Cafetera, Anexo Volumen 6, octubre 6, 1976) nos dan una visión amplia de la producción en San Miguel.

Estas tres situaciones de comunidades campesinas son semejantes porque todas se caracterizan por la producción en pequeña escala y el uso primario de la mano de obra familiar. La mano de obra familiar no es siempre suficiente, sin embargo, como se puede discernir del gráfico siguiente que indica las pautas de reclutamiento de mano de obra para Fómeque, San Miguel y Tumbichucue, debido a una reserva de los indios Páez fue estudiada por Sevilla-Casas. La mano de obra familiar como porcentaje total varía

El Reclutamiento de Mano de Obra en Tres Comunidades Campesinas Colombianas, en Porcentajes

| | Tumbichucue | Fómeque | San Miguel |
|---|---|---|---|
| Mano de Obra Familiar | 66.5 | 33 a/ | 33.3 |
| Mano de Obra de Intercambio | 9.4 | ? | |
| Mano de Obra Contractual | 2.0 | 17 | 66.7 |
| Mano de Obra Festiva | 22.1 | | |
| | 100.0 | 100.0 | 100.0 |

a/ Incluye Mano de Obra de Intercambio

Recursos: Por Tumbichucue, Sevillas-Casas 1976: 40; por Fómeque, Haney 1969 Cuadro IX-10, pp. 251-252; por San Miguel, Economía Cafetera Anexo Vol. 6, p. 18-19 (derivado de los costos de mano de obra en fincas de una a diez hectáreas).

de un 33 por ciento en Fómeque a un 33.3 por ciento en San Miguel. Se debe bajar el porcentaje para Fómeque en algo, porque Haney incluye también la mano de obra recíproca en esta categoría. Supongamos que la mano de obra recíproca representa el

10 por ciento del total reclutado; entonces sería más acertado decir 73 por ciento como representación de la mano de obra familiar, en Fómeque.

Las diferencias entre los tres casos son a la vez económicas y socio-culturales. Las reservas de los Páez tienen una tenencia de tierra corporativa, controla la jurisdicción y se oponen fuertemente al contacto con sus vecinos blancos. Fómeque y San Miguel, al contrario, son comunidades en las cuales la tierra es libre para la compra y la venta, y los campesinos están en contacto continuo con la sociedad nacional. Eric Wolf, antropólogo distingue entre la comunidad abierta y la comunidad corporativa cerrada halladas en Latinoamérica (1957); según su criterio, Fómeque y San Miguel serían comunidades abiertas mientras las reservas Páez serían comunidades cerradas. Esta tipología ha sido criticada por Keatinge (1973) que la disputa con evidencia respecto a una comunidad campesina peruana, diciendo que no hay una contradicción en una comunidad campesina que posee una tenencia de tierra cerrada y la interacción social abierta. Aunque la crítica de Keatinge sobre la tipología de Wolf pueda ser acertada, la literatura etnográfica disponible sobre las reservas Páez indica que ellas caben dentro del tipo ideal de comunidad corporativa cerrada, descrita por Wolf. En la esfera económica, sin embargo, San Miguel se especializa en la producción del café, un producto agrícola para la venta que se ha adoptado perfectamente a la zona ecológica de la vereda y que tiene un alto valor del mercado en comparación con los otros productos agrícolas locales. Cultivan el café en las reservas Páez, pero no es el único producto de los campesinos, tienden a cosechar una variedad de cultivos en las zonas más bajas.

Cómo entran estos y otras variables en el proceso de reclutamiento de la mano de obra y sus correlativos sociales? Primeramente, el ejemplo de San Miguel demuestra que la especialización en un cultivo para el mercado con un alto valor de mercadeo puede resultar con una baja en el reclutamiento de mano de obra de intercambio, mano de obra festiva y mano de obra contratada pagada en especie. Esta tendencia fue notada la primera vez por Erasmus, en 1956, como un efecto de la divulgación de la economía monteraria. Erasmus halló que la mano de obra festiva se desaparecía en Latinoamérica y que la mano de obra de sueldos iba reemplazando la de intercambio porque eliminó las inconveniencias de ésta: la necesidad de hallar personas que querían intercambiar la mano de obra, la necesidad de pagar con su propia mano de obra más tarde, y el problema de compensar por las diferencias en tamaño de tierras.

Fómeque y las reservas Páez no son totalmente suficientes entre sí como economías de subsistencia, hay productos a la venta. El café se cultiva entre los Páez, y una variedad de frutas y legumbres se cultivan para vender en Fómeque. Hay un número de restringos en la producción que se hallan en estas comunidades que son universales entre los campesinos de pequeña escala. Incluyen la falta de acceso de fuentes subvencionadas de crédito, bajos niveles de educación, una tecnología tradicional, y, en general, el problema de pequeñez de escala dados otros restringimientos, lo que termina en un riesgo considerable. Las estrategias para reducir el riesgo y satisfacer como orientaciones de producción son orientaciones racionales en vista de los restringimientos. Incluyen la diversificación de los cultivos, la concentración en una producción de subsistencia, y el resguardo de alimentos del mercado para intercambiarlos entre los miembros del grupo con el cual uno interacciona (ver Haney 1969: 334; Ortiz 1973: 290-291).

Un segundo restringimiento mayor se halla en las relaciones de clases en las comunidades rurales. En Tierradentro hay distinciones de clase importantes entre los indios Páez y los colonos aculturados llamados en la localidad "blancos". Ortiz notó que "la inversión de tierra y mano de obra en los cafetales trae consigo una recompensa anual de dinero, pero la acumulación de dinero, particularmente si no es dinero destinado a gastarse en fiestas, no es aprobado por la comunidad... demasiado interés en el incremento de su dinero sugiere un deseo de emular a los blancos lo que es mal visto". (Ortiz 1973: 191-192). Así, aunque hay cultivos para vender en Fómeque y Tierradentro, los restringimientos socio-económicos disminuyen la productividad a niveles en los que rara vez haya dinero suficiente para el reclutamiento de mano de obra. Esto también es consistente con la predicción de Erasmus en lo que la falta de dinero en efectivo es un factor principal en la supervivencia de la mano de obra de intercambio en una economía monetaria.

Una estrategia importante al nivel de la colectividad que se usa para aumentar las oportunidades de sobrevivencia del hogar individual es la norma de la reciprocidad, los efectos del cual se hallan en los procesos de la producción y la distribución. Es importante comprender la base de la reciprocidad como una estrategia de sobrevivencia entre los campesinos de pequeña escala. Al contrario de la opinión de muchos observadores de la sociedad rural andina, en particular los escritores indigenistas del Perú, tal estrategia no es ni necesariamente cultural en origen ni indicativa de una propensión general hacia la organización cooperativa, (ver Forman 1976). El hecho de que no sea específicamente cultural se comprueba por la existencia de normas recíprocas entre los campesinos colombianos de origen africano, español e indígena. Además, la norma de reciprocidad es específica a los contextos definidos localmente como críticos para la

supervivencia. Un ejemplo es la extensión de la reciprocidad para incluír el requisito que un individuo debe conceder a un acuerdo de mano de obra de intercambio cuando se lo pidan. (Haney 1969: 218). Otro ejemplo es la separación de la distribución entre los Páez en dos esferas, una para el café que se puede vender, y otra para los alimentos que se deben intercambiar entre las coaliciones de los Páez, según las normas que rigen entre estos (ver Ortiz 1973).

Para comprender las implicaciones de una norma de reciprocidad, miremos la forma de mano de obra de intercambio entre Fómeque y las reservas Páez. La mano de obra de intercambio en Tierradentro se usa cuando una persona o dos se necesitan y cuando son accesibles. Se emplea en las tareas pequeñas en terrenos pequeños donde la mano de obra puesta no es tan grande para impedir o hacer imposible el requisito de reciprocidad. La cosecha del café en las fincas pequeñas o medianas que producen hasta 40 arrobas (1.000 libras) se hace generalmente utilizando la mano de obra de intercambio. Haney no especifica las tareas para los cuales se recluta la mano de obra de intercambio en Tierradentro, pero él indica que se usa mucho entre los pequeños propietarios. (Haney 1969: 218, 249-255).

Para reclutar la mano de obra de intercambio hay dos tipos de costos que entran en el proceso. El primero es la necesidad de haber llenado las obligaciones sociales al nivel de la colectividad. Los sistemas sociales locales se pueden ver como mecanismos por los cuales los individuos se adaptan a su ambiente. Las normas colectivas emergen aquí; la norma de reciprocidad es un ejemplo de tal norma. Otras normas hacen cumplir la identificación individual con los goles y objetivos de la colectividad. Con mucha frecuencia en las sociedades andinas, la participación en rituales, particularmente la fiesta,

se requiere para indicarse socio del grupo. Así, la necesidad de participar en estas ocasiones implica gastos o costos que se deben "pagar" si uno espera obtener los beneficios de hacerse miembro del grupo.

Un segundo tipo de gasto es aquel que va para la creación y el mantenimiento de relaciones entre individuos (en oposición a las relaciones colectivas). El proceso de establecer estas relaciones se define localmente o compartido entre grupos de referencias más grandes. Tales relaciones, llamadas contratos diádicos en la literatura antropológica (ver Foster 1961), son muy comunes en las sociedades campesinas, en la ausencia de grupos corporados, tal como la linaje africana. En Tierradentro, por ejemplo, relaciones sociales se crean y se mantienen por la invitación a los individuos a una reunión en su casa en la cual se sirve guarapo, una cerveza hecha de la caña de azúcar fermentada. Hay un gasto directo que incluye el tiempo, la mano de obra, y la tierra que se aparta para el cultivo de la caña de azúcar, tanto como el tiempo y la fuerza necesaria para elaborarla en guarapo.

Hay un gasto indirecto que se debe considerar también. Este gasto viene del compromiso del grupo al uso de mano de obra de intercambio como una solución a sus necesidades. Este compromiso, como propone Haney (1969: 218), restringe a los campesinos de aceptar un trabajo de fuera y de entrar en compañía para que no se sospeche de su lealtad al grupo. Estos compromisos también crean problemas en algunos casos con el horario de actividades: "Para las situaciones que tienen actividades suplementarias o agrupaciones con un horario flexible esta interdependencia tal vez no cause dificultades. Pero para los cultivos de alta ganancia como los tomates, para que la programación de las operaciones es el factor crucial del punto de vista de la calidad

y la cantidad de producción, tanto como los precios recibidos, las familias individuales deben sincronizar sus operaciones con mucho cuidado con los otros miembros del grupo laboral (Haney 1969: 254)".

Los beneficios de la mano de obra de intercambio se deben comprender como una función de la pequeñez de escala de los productores campesinos y sus calidades de ser miembros de grupos sociales que hacen cumplir normas recíprocas. Mientras la mano de obra es comprometida al grupo y usos alternativos de mano de obra se deben suprimir, suponiendo que existan, sin embargo, uno puede más o menos asegurarse que los socios de intercambio estarán disponibles, en momentos cruciales. Además, aunque no existen estudios empíricos del fenómeno, se puede hipotizar que una norma de grupo de la reciprocidad aumenta la eficiencia de la mano de obra de intercambio relativo a la mano de obra asalariada (ver Guillet, 1974).

La mano de obra festiva se halla solamente en Tierradentro, entre nuestros tres casos. La otra única región en Colombia donde ha sido documentado con alguna frecuencia, es en las tierras bajas de las costas del Pacífico y el Atlántico en las cuales se está desapareciendo (West 1957: 131; Price 1954). En Tierradentro, grupos de mano de obra festiva, llamados mingas, son la forma preferida de reclutamiento de la mano de obra cuando las necesidades son particularmente grandes, la faena se debe completar dentro de un período corto de tiempo, y/o la faena es singularmente tediosa y cansante. Estos requisitos se cumplen en el desmonte y deshierba de campo en descanso y cultivado y la deshierba de cafetales permanentes. En estas ocasiones, entre ocho y quince individuos, dependiendo en la magnitud de la tarea, con invitados a una minga. La mayoría del trabajo se hace por la mañana, paran por la tarde para hacer

una comida festiva preparada por la esposa y/o hija del anfitrión. Sigue la fiesta a veces toda la noche con la gente tomando y bailando. La provisión del componente festivo a la mano de obra distingue en algo la minga de la forma de intercambio porque satisface la obligación del anfitrión de la reciprocidad de la mano de obra.

De la perspectiva del anfitrión, los gastos de una minga incluyen un poco de dinero junto con comida, cerveza de caña de azúcar, y un animal cocido como plato principal. La mayoría de estas casas pueden producir en sus fincas, y los campesinos andinos guardan animales normalmente para tener un tipo de ahorro liquidable precisamente para estos tipos de gastos. El anfitrión también necesita una esposa o hija que pueda preparar la comida y la bebida.

Ortiz ha calculado los gastos de la mano de obra de una minga comparados con los de mano de obra pagada en jornales y ella concluye que los gastos de aquel tipo son un poco más altos que los de este tipo (1973: 157). Aunque el sistema de minga es menos eficiente desde este punto de vista, tiene dos ventajas: primero, es una forma de entretenimiento para todos los participantes, incluso el anfitrión, y segundo, los gastos se pueden pagar en especie, y poco dinero en efectivo se precisa. Esto es muy importante debido a que las mingas se hacen generalmente en una época del año en la cual hay poco dinero disponible.

Las mayores ventajas de la minga para los asistentes son la oportunidad de participar en una fiesta y a la vez cumplir con sus obligaciones sociales de la cooperación. Esta es particularmente importante en comunidades cerradas corporativas, tal como se hallan en Tierradentro donde lazos sociales muy estrechos unen a las personas y promueven una identidad del grupo y la cooperación entre sí.

Hay naturalmente variaciones entre las reservas de Tierradentro en términos de la cohesión del grupo y la adhesión a las normas colectivas de la reciprocidad, el prestigio y el entretenimiento. Los ejemplos de San Andrés y Tumbichucue son ilustrativos de esto. El número de 22 por ciento para la mano de obra festiva como una porción de la total en Tumbichucue implica que es bastante común como forma de reclutamiento de la mano de obra. En San Andrés, sin embargo, de 26 familias entrevistadas por Ortiz, sólo 12 habían hecho mingas durante el año anterior, dando las razones de enfermedad, falta de dinero o de un animal, falta de necesidad o la ubicación del terreno de uno. Parece que las mingas son más comunes en Tumbichucue que en San Andrés. No parecen existir mayores diferencias en la situación económica de las dos comunidades, excepto en los canales de la comercialización más explotativos que se encuentran en Tumbichucue. Esta razón tal vez afecte los cálculos de gastos-beneficios. Pero hay diferencias significantes en el orden socio-políticos: el Cabildo de Indígenas es más fuerte en Tumbichucue en ejercer sus derechos y obligaciones que en San Andrés, un indicio de mayor cohesión y lazos sociales más fuertes. Esto tal vez explique en parte las diferencias en la mano de obra festiva que se influye mucho por factores como los antes mencionados.

Dejando de lado las variaciones internas entre las reservas de Tierradentro, no hay dura que son más cohesivas y autónomas que Fómeque y San Miguel. Los ejemplos de Fómeque y San Miguel, ilustran la disminución del sistema de reclutamiento festivo de la mano de obra bajo el efecto de cambios en las relaciones sociales causados por la aculturación y especialización en cultivos del mercado. El entretenimiento y el prestigio de ser anfitrión y participante en la mano de obra festiva puede existir solo en un

sistema social bastante cerrado que define los estandards locales de estas funciones. Donde el cambio socio-cultural introduce estandars regionales o nacionales para el estatus y el entretenimiento, entonces esperamos que, como predijo Erasmus, la mano de obra festiva disminuya. Un indicio de esta tendencia se halla en San Andrés en el surgimiento de un grupo de lo que Ortiz llama indios "progresivos". Ellos desprecian la minga tradicional y las formas de mano de obra de intercambio y tienen dudas acerca de su capacidad de reciprocar la mano de obra de intercambio, dadas sus mayores cantidades de mano necesitadas. Ellos no gastan grandes cantidades de dinero en fiestas y prefieren gastar sus ingresos en productos de consumo de comida procesada, ropa, y mejoras de sus casas y terrenos (Ortiz 1973: 177-178). Esta tendencia ha estado ocurriendo por bastante tiempo en comunidades como Fómeque que tienen raíces indígenas en un pasado no tan lejano y que ha servido de ejemplo para las comunidades cafeteras por mucho tiempo.

## Conclusión

Los datos presentados en este trabajo sugieren que el proceso de reclutar la mano de obra entre campesinos de pequeña escala es un procedimiento complejo en el cual los costos y los beneficios de formas alternativas están constantemente pesados. Sus respuestas no son basadas enteramente en la experiencia pasada sino más bien reflejan el interés en estados futuros. En otras palabras, no se comportan como el hombre de Skinner, sino que son actores racionales que idean estrategias calculadas a producir resultados en una situación dada. O sea, que las explicaciones basadas en una "supervivencia" esencialmente irracional son insuficientes para explicar la existencia de formas asociativas

del uso de la mano de obra y de otras formas asociativas de los factores de producción tradicionales.

La evaluación de una forma dada de mano de obra comprende los costos y los beneficios tanto económicos como sociales. Un análisis microeconómico estrecho de los costos y los beneficios esencialmente materiales sería de uso limitado. Como ejemplo, en las reservas Páeces el entretenimiento, el prestigio, y la adhesión a las normas colectivas de la cooperación son elementos en el cálculo del anfitrión y los participantes en reuniones festivas de trabajo. Estos elementos compensan las ineficiencias "económicas" de la mano de obra festiva y la hacen una forma de reclutamiento de mano de obra "racional".

Los costos y los beneficios están altamente influídos por la naturaleza de la sociedad local en la cual los campesinos viven, trabajan y mueren. La tipología dicotómica de Wolf acerca de las comunidades cerradas y abiertas en la América Latina indica hasta cierto punto los contextos dentro de los cuales se puede esperar que varíe la mano de obra recíproca. En las reservas cerradas corporadas de los Páez, los criterios locales para el entretenimiento y el prestigio fueron incentivos fuertes para reclutar la mano de obra festiva. En Fómeque y San Miguel, por otro lado, el entretenimiento y el prestigio se obtienen en otros campos sociales, más orientados a las normas urbanas. Debemos tener cuidado de no dar demasiada importancia a las tipologías estáticas como la de Wolf. Las comunidades rurales en la América Latina no son estáticas sino, más bien son dinámicas, como demuestra la descripción de Ortiz del surgimiento de un grupo "progresivo" de Indios en una reserva Páez, quienes desprecian las mingas. Pero, de todos modos, hay que prestar atención cuidadosa a la naturaleza

de la sociedad local, dentro de la cual los campesinos obran entre sí, para descubrir la racionalidad de sus estrategias del uso de la mano de obra.

El ejemplo más claro de la influencia de la sociedad local es el contexto que provee para las estrategias colectivas destinadas de asegurar la supervivencia de los hogares campesinos individuales. Es aquí donde el grupo local puede establecer y hacer cumplir las normas recíprocas en aquellas esferas de actividad que ellos creen las más cruciales. Es importante notar, sin embargo, que la existencia de unas normas recíprocas no implica que la reciprocidad y la cooperación caracterizan todas las esferas de actividad. En las reservas Páeces los alimentos se intercambian dentro de las coaliciones de indios Páeces y la cooperación se espera dentro de esta esfera. Otras cosas como el café y la ropa, no son intercambiadas de la misma manera, y ninguna norma de reciprocidad se rompe si se compran o se venden estas cosas. Las normas recíprocas son, en esencia, las trategias concebidas para aplicarse en situaciones específicas que el grupo juzga imprescindibles para su supervivencia.

Finalmente, la mano de obra recíproca es una práctica muy común, sucediendo con frecuencia en las sociedades campesinas de todo el mundo (Geogrescu-Roegen 1969). Lo que muchas veces se pasa por alto en las descripciones y los análisis de su uso, es el tiempo, el esfuerzo, el dinero, y la especie que tienen que ser expendidos en la creación y el mantenimiento necesarios de las relaciones sociales. En los casos descritos aquí, la asignación de terrenos, mano de obra, y tiempo para producir comida y bebida es un costo directo que al final reduce el número de factores de producción que pueden ser asignados a la subsistencia y/o la producción orientada al mercado.

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# ANEXOS

## Cuadro No. 1

### Población, Tasa de Crecimiento, Superficie y Densidad en los Países Iberoamericanos

| País | Fecha del último Censo | Población | % de tasa anual de incremento 1958/62 | Superficie $Km^2$ | Densidad por $Km^2$ |
|---|---|---|---|---|---|
| Argentina | 30-IX-60 | 20.005.691 | 1.6 | 2.776.656 | 8 |
| Bolivia | 5-IX-50 | 2.704.165 | 1.4 | 1.098.581 | 3 |
| Brasil | 1-IX-60 | 70.967.185 | 3.4 | 8.511.965 | 9 |
| Colombia | 9-V-51 | 11.548.172 | 2.2 | 1.138.338 | 13 |
| Costa Rica | 1-IV-63 | 1.325.155 | 4.3 | 50.700 | 25 |
| Cuba | 23-I-53 | 5.829.029 | 2.0 | 114.524 | 52 |
| Chile | 29-XI-60 | 7.339.546 | 2.3 | 741.767 | 11 |
| Ecuador | 25-XI-62 | 4.581.476 | 3.2 | 270.670 | 17 |
| El Salvador | 2-V-61 | 2.510.984 | - | 21.393 | 123 |
| Guatemala | 18-IV-50 | 2.790.868 | 3.2 | 108.889 | 37 |
| Honduras | 17-IV-61 | 1.833.362 | 3.0 | 112.088 | 17 |
| México | 8-VI-60 | 34.923.129 | 3.1 | 1.972.546 | 19 |
| Nicaragua | 25-IV-63 | 1.524.027 | 3.5 | 148.000 | 11 |
| Panamá | 2-XII-60 | 1.075.541 | 2.3 | 75.650 | 15 |
| Paraguay | 18-IX-62 | 1.816.890 | 2.4 | 406.752 | 5 |
| Perú | 2-VII-61 | 10.364.620 | - | 1.285.215 | 9 |
| Puerto Rico | 1-IV-60 | 2.349.544 | 1.7 | 8.897 | 273 |
| República Dominicana | 7-VIII-60 | 3.013.525 | 3.6 | 48.734 | 66 |
| Uruguay | 16-X-63 | 2.556.020 | 1.4 | 186.926 | 16 |
| Venezuela | 26-II-61 | 7.523.999 | 3.4 | 912.050 | 9 |

FUENTE: Statistical Yearbook. 1963. Naciones Unidas

## Cuadro No. 2

Tasas Brutas de Natalidad y Mortalidad. Porcentaje de Población Inferior a 15 Años y Porcentaje de Población Rural

| País | Tasa Bruta de Natalidad (o/oo) | Tasa Bruta de Natalidad (o/oo) | Proporción de la Población Total (%) | |
|---|---|---|---|---|
| | | | Inferior a 15 años (1960) | Rural (1960) |
| Argentina | 24 - 25 | 8 - 9 | 30.4 | 32 |
| Bolivia | 41 - 45 | 18 - 25 | 41.9 | 70 |
| Brasil | 42 - 45 | 16 - 19 | 42.3 | 61 |
| Colombia | 44 - 45 | 15 - 17 | 44.3 | 54 |
| Costa Rica | 44 - 48 | 10 - 15 | 44.1 | 62 |
| Cuba | 30 - 32 | 10 - 11 | 36.0 | 45 |
| Chile | 35 - 37 | 13 - 14 | 38.8 | 37 |
| Ecuador | 44 - 48 | 15 - 17 | 44.0 | 69 |
| El Salvador | 44 - 48 | 14 - 18 | 43.1 | 67 |
| Guatemala | 46 - 52 | 18 - 25 | 44.7 | 69 |
| Honduras | 44 - 48 | 15 - 20 | 42.0 | 78 |
| México | 45 - 47 | 14 - 17 | 43.7 | 46 |
| Nicaragua | 45 - 50 | 14 - 18 | 44.6 | 66 |
| Panamá | 38 - 42 | 9 - 12 | 41.5 | 59 |
| Paraguay | 45 - 50 | 12 - 18 | 42.4 | 66 |
| Perú | 42 - 48 | 15 - 22 | 44.1 | 64 |
| Puerto Rico a/ | 32 - 43 | 6 - 7 | 42.6 | 55 |
| República Dominicana | 45 - 50 | 15 - 20 | 43.9 | 71 |
| Uruguay | 18 - 20 | 7 - 8 | 26.2 | 18 |
| Venezuela | 44 - 47 | 12 - 15 | 42.5 | 38 |

a/ Añadido por el autor en base a fuentes de las Naciones Unidas en el Demographia Yearbook (1963). Los datos se refieren a 1960.

FUENTE: CEPAL. Boletín Económico de América Latina, vol. V., Suplemento Estadístico, noviembre 1960. Todos los datos son estimaciones de la CEPAL.

## Cuadro No. 3

IBEROAMERICA. Número de las Explotaciones Agropecuarias según la Superficie

| País | Has. 0-20 | % | Has. 20-100 | % | Has. 100-1.000 | % | Más de 1.000 | % | Total de Explotaciones |
|---|---|---|---|---|---|---|---|---|---|
| Argentina | 235.953 | 43.16 | 143.380 | 26.23 | 136.531 | 24.97 | 30.843 | 5.64 | 546.698 |
| Brasil | 1.056.119 | 51.16 | 707.372 | 34.27 | 268.159 | 12.99 | 32.628 | 1.58 | 2.064.278 |
| México | 1.196.160 | 87.59 | 102.813 | 7.53 | 56.141 | 4.11 | 10.519 | 0.77 | 1.365.633 |
| Bolivia | 65.869 | 77.35 | 7.608 | 8.94 | 6.272 | 7.36 | 5.412 | 6.35 | 85.161 |
| Venezuela | 350.063 | 88.02 | 27.082 | 6.80 | 13.919 | 3.49 | 6.759 | 1.69 | 397.823 |
| Paraguay | 103.525 | 69.26 | 38.175 | 25.53 | - | - | 7.789 | 5.21 | 149.489 |
| Chile | 90.300 | 72.59 | 13.300 | 10.69 | 18.100 | 14.55 | 2.700 | 2.17 | 124.400 |
| Uruguay | 39.710 | 44.56 | 27.266 | 30.59 | 18.549 | 20.81 | 3.605 | 4.04 | 89.130 |
| Colombia | 749.390 | 81.54 | 123.185 | 13.40 | 43.247 | 4.70 | 3.178 | 0.36 | 919.000 |
| Cuba | 111.278 | 69.60 | 35.911 | 22.50 | 11.875 | 7.40 | 894 | 0.50 | 159.958 |
| Ecuador | 309.336 | 89.88 | 27.742 | 8.07 | 6.451 | 1.88 | 705 | 0.17 | 344.234 |
| Guatemala | 334.939 | 96.07 | 12.613 | 3.62 | 569 | 0.16 | 516 | 0.15 | 348.687 |
| Perú | 73.656 | 89.69 | 4.689 | 5.71 | - | - | 3.777 | 4.60 | 82.122 |
| Nicaragua | 26.564 | 51.49 | 22.298 | 43.23 | 2.357 | 4.57 | 362 | 0.71 | 51.581 |
| República Dominicana | 259.560 | 94.48 | 13.027 | 4.74 | 1.948 | 0.71 | 185 | 0.07 | 274.720 |
| Costa Rica | 77.566 | 89.20 | 6.786 | 7.81 | 2.452 | 2.81 | 160 | 0.18 | 86.964 |
| Honduras | 135.723 | 86.93 | 17.617 | 11.29 | 2.601 | 1.66 | 194 | 0.12 | 156.135 |
| El Salvador | 163.411 | 93.80 | 8.767 | 5.03 | 1.881 | 1.09 | 145 | 0.08 | 174.204 |
| Panamá | 73.524 | 86.01 | 10.638 | 12.45 | 1.253 | 1.47 | 58 | 0.07 | 85.473 |
| TOTALES | 5.452.696 | 72.64 | 1.350.269 | 17.99 | 592.305 | 7.90 | 11.420 | 1.47 | 7.505.690 |

FUENTE: Opúsculos sobre el Desarrollo Económico-Social. Estructura y Reforma Agraria en Hispanoamérica. Consejo Superior de Investigaciones Científicas. Instituto "Balmes" de Sociología. Madrid, 1963.

Cuadro No. 4

ARGENTINA. Distribución, por Tamaño, de la Propiedad Agraria (1960)

| | Explotaciones | | Superficie Cubierta | |
|---|---|---|---|---|
| | Número | Porcentaje | Miles de Has | Porcentaje |
| Hasta 25 Has. | 181.404 | 38.5 | 1.759.5 | 1.0 |
| Más de 25 a 100 Has. | 127.463 | 27.0 | 7.710.1 | 4.4 |
| Más de 100 a 400 Has. | 97.072 | 20.5 | 10.698.0 | 11.2 |
| Más de 400 a 1.000 Has. | 24.876 | 5.3 | 15.624.9 | 8.9 |
| Más de 1.000 a 2.500 Has. | 14.899 | 3.2 | 15.774.2 | 14.7 |
| Más de 2.500 a 10.000 Has. | 8.908 | 1.9 | 46.168.6 | 26.4 |
| Más de 10.000 Has. | 2.551 | 0.5 | 58.407.1 | 33.4 |
| Campo abierto y sin determinar | 14.583 | 3.1 | - o - | -o- |
| TOTALES | 471.756 | 100.0 | 175.142.4 | 100.0 |

FUENTE: Dirección Nacional de Estadísticas y Censos, Censo Nacional Agropecuario. 1960. Buenos Aires, 1964.

## Cuadro No. 5

BRASIL. Estructura de la Propiedad Agrícola en 1960 a/

| Hectáreas | Número y Extensión de Unidades Agrarias | | | Distribución Porcentual por Extensión | | | |
|---|---|---|---|---|---|---|---|
| | Unidades Agrarias (Miles) | Superficie (1.000 has.) | Superficie Cultivada (1.000 has) | Unidades Agrarias | Tierra Agrícola | Tierra Cultivada | De la Tierra Agríc. Cultiv. |
| Hasta 10 | 1.500 | 5.920 | 3.950 | 44.8 | 2.2 | [illegible] | 1.5 |
| 10 a 100 | 1.495 | 47.700 | 13.300 | 46.6 | 18.0 | 44.5 | 5.0 |
| 100 a 1.000 | 315 | 86.300 | 9.000 | 9.4 | 32.5 | 30.3 | 3.4 |
| 1.000 a 10.000 | 31 | 72.300 | 2.960 | 0.9 | 27.5 | 10.0 | 1.1 |
| Más de 10.000 | 1.7 | 52.740 | 460 | 0.1 | 19.8 | 1.5 | 0.2 |
| Sin clasificación | 1.7 | - | - | 0.2 | - | - | - |
| TOTALES | 3.350.0 | 265.460 | 29.670 | 100.0 | 100.0 | 100.0 | 11.2 |

a/ De los establecimientos rurales enumerados en 1960, más del 90 por ciento se hallaban en las tres regiones más pobladas: el Nordeste, el Este y el Sur, que tenían el 29, 28.5 y 34 por ciento de todas las tenencias, respectivamente.

FUENTE: Cifras adaptadas de IBGE. Anuario Estadístico de Brasil, 1963; págs. 55-66.

## Cuadro No. 6

COLOMBIA. Distribución de la Tierra

| Tamaño (Hectáreas) | Explotaciones | | Superficie | |
|---|---|---|---|---|
| | Número | % | Miles Has. | % |
| Menores de 5 | 756.605 | 62.6 | 1.238.9 | 4.5 |
| De 5 a menos de 20 | 283.376 | 23.4 | 2.736.8 | 10.0 |
| De 20 a menos de 100 | 126.779 | 10.5 | 5.319.2 | 19.5 |
| De 100 a menos de 500 | 36.010 | 3.0 | 6.990.5 | 25.6 |
| De 500 o más | 6.902 | 0.5 | 11.052.4 | 40.4 |
| TOTALES | 1.209.672 | 100.0 | 27.337.8 | 100.0 |

FUENTE: Adaptado del Directorio Nacional de Explotaciones Agropecuarias (Censo Agropecuario), 1960.

## Cuadro No. 7

COSTA RICA. Distribución de la Tierra según Tamaños de Propiedad (1950 y 1955)

| Escala de Manzanas a/ | Explotaciones | | | | Superficie Cubierta | | | |
|---|---|---|---|---|---|---|---|---|
| | 1950 | | 1955 | | 1950 | | 1955 | |
| | No. de predios | Porcentaje | No. de predios | Porcentaje | Miles de Has. | Porcentaje | Miles de Has. | Porcentaje |
| 1 a 9 | 18.976 | 44.1 | 20.995 | 44.4 | 53 | 2.9 | 58 | 3.2 |
| 10 a 49 | 15.576 | 36.0 | 16.893 | 35.7 | 258 | 14.2 | 283 | 15.3 |
| 50 a 99 | 4.703 | 10.9 | 5.061 | 10.7 | 217 | 11.9 | 238 | 12.8 |
| 100 a 249 | 2.620 | 6.1 | 2.909 | 6.2 | 270 | 14.9 | 292 | 15.8 |
| 250 a 999 | 966 | 2.3 | 1.176 | 2.5 | 310 | 17.2 | 357 | 19.3 |
| 1.000 y más | 245 | 0.6 | 256 | 0.5 | 704 | 38.9 | 622 | 33.6 |
| TOTALES | 43.086 | 100.0 | 47.290 | 100.0 | 1.812 | 100.0 | 1.850 | 100.0 |

a/ Una manzana equivale a 0.69 hectáreas.

FUENTE: Ministerio de Economía y Hacienda, Dirección General de Estadística y Censos, Censos Agropecuarios de 1950 y 1955.

Cuadro No. 8

ECUADOR. Distribución de las Explotaciones Agrícolas por Tamaño

| Tamaño en Has. | Explotaciones | | Superficie | |
|---|---|---|---|---|
| | Número | % | Miles Has. | % |
| Menores de 5.0 | 251.686 | 73.1 | 432.2 | 7.2 |
| De 5.0 a 19.9 | 57.650 | 16.7 | 565.8 | 9.4 |
| De 20.0 a 99.9 | 27.742 | 8.1 | 1.138.7 | 19.0 |
| De 100.0 a 499.9 | 5.787 | 1.7 | 1.156.3 | 19.3 |
| De 500.0 o más | 1.369 | 0.4 | 2.706.7 | 45.1 |
| TOTALES | 344.334 | 100.0 | 5.999.7 | 100.0 |

FUENTE: Plan General de Desarrollo Económico y Social, tomo II, Libro Sexto, Cuadro número III-18.

Cuadro No. 9

EL SALVADOR. Distribución de la Tierra

| Tamaño en Has. | Explotaciones | | Superficie | |
|---|---|---|---|---|
| | Número | % | Has. | % |
| Hasta 5 | 190.971 | 85.15 | 231.792 | 14.85 |
| De 5 a 10 | 28.869 | 12.87 | 440.554 | 28.22 |
| De 10 a 50 | 4.136 | 1.84 | 513.246 | 32.88 |
| De 50 a 500 | 282 | 0.13 | 262.141 | 16.79 |
| Más de 500 | 21 | 0.01 | 113.266 | 7.26 |
| TOTALES | 224.289 | 100.00 | 1.560.999 | 100.00 |

FUENTE: El Cuadro número 15. Boletín Avance, de la Dirección General de Estadística, junio 1963. Informe del Banco Central de Reserva al BID (1964).

## Cuadro No. 10

GUATEMALA. Concentración de la Tierra, por Tamaño de las Fincas

| Tamaño Convencional | Número de Fincas Número | % | Superficie por Has. Superficie | % |
|---|---|---|---|---|
| TOTALES | 348.687 | 100.0 | 3.714.135 | 100.0 |
| Micro-Fincas (Menos de 1 manzana) a/ | 74.269 | 21.3 | 28.524 | 0.8 |
| Subfamiliares (De 1 a 10 manzanas) | 233.804 | 67.1 | 503.648 | 13.5 |
| Familiares (De 10 a 64 manzanas) | 33.041 | 9.5 | 499.929 | 13.5 |
| Multifamiliar mediana (De 1 a 20 caballerías) a/ | 7.057 | 2.0 | 1.165.430 | 31.4 |
| Multifamiliar grande (De 20 o más caballerías) | 516 | 0.1 | 1.516.604 | 40.8 |

a/ Una manzana = 0.69 Has. Una caballería = 44.16 Has.
FUENTE: Censo Agropecuario de 1950. Comisión Nacional de Programación Económica, 1964.

## Cuadro No. 11

HONDURAS. Distribución de la Tierra

| Tamaño en Has. | Explotaciones Porcentaje | Superficie Porcentaje | Tamaño Promedio Has. |
|---|---|---|---|
| Hasta 10 | 75 % | 16 % | 3.4 |
| De 10 a 199 | 24 % | 46 % | 30.5 |
| De 200 y más a/ | 1 % | 38 % | 744.3 |

a/ En esta categoría se registraron 126 predios con una extensión media de 1.500 hectáreas cada uno y 68 fincas con 4.875 Has. cada uno.
FUENTE: Censo Agropecuario de 1952.

## Cuadro No. 12

NICARAGUA. Número, Superficie y Distribución Procentual de las Explotaciones Agropecuarias, según Tamaño. 1962

| Tamaño en Has. | Número de Fincas Número | Distribución Porcentual | Superficie de las Fincas Superficie total en Has. | Distribución Porcentual | Tamaño medio por finca en Has. |
|---|---|---|---|---|---|
| De 1 a 7.92 | 17.940 | 34.8 | 54.400 | 2.3 | 3.0 |
| De 8 a 39.92 | 19.300 | 37.4 | 302.900 | 12.8 | 15.7 |
| De 40 a 399.92 | 13.490 | 26.2 | 1.021.500 | 43.0 | 75.7 |
| De 400 y más | 840 | 1.6 | 993.300 | 41.9 | 1.182.5 |
| TOTALES | 51.570 | 100.0 | 2.372.100 | 100.0 | 46.0 |

FUENTE: Encuesta Agropecuaria de 1952.

## Cuadro No. 13

PANAMA. Distribución de la Tierra

| Tamaño en Has. | Explotaciones Número | % | Superficie Miles Has. | % |
|---|---|---|---|---|
| Hasta 10 | 61.778 | 64.7 | 213.411 | 11.7 |
| De 10 a 100 | 31.264 | 32.7 | 831.303 | 45.9 |
| De 100 o más | 2.463 | 2.6 | 761.738 | 42.4 |
| TOTALES | 95.505 | 100.0 | 1.806.452 | 100.0 |

FUENTE: Algunas características importantes de las explotaciones agropecuarias. Segundo Censo Agropecuario, 1961, Panamá.

## Cuadro No. 14

PARAGUAY. Distribución de la Tierra por Tamaño de Fincas (1956)

| Tamaño en Has. | Explotaciones Número de fincas | Explotaciones Porcentaje | Superficie Censada Miles de Has. | Superficie Censada Porcentaje |
|---|---|---|---|---|
| 0.5 a 9.9 | 103.662 | 69.3 | 393 | 2.3 |
| 10 a 49.9 | 38.174 | 25.5 | 658 | 4.0 |
| 50 a 199.9 | 4.405 | 2.9 | 407 | 2.4 |
| 200 a 999.9 | 1.823 | 1.2 | 774 | 4.6 |
| 1.000 a 4.999.9 | 1.015 | 0.7 | 2.220 | 13.2 |
| 5.000 o más | 534 | 0.4 | 12.364 | 73.5 |
| TOTALES | 149.613 | 100.0 | 16.816 | 100.0 |

FUENTE: Ministerio de Agricultura y Ganadería. Censo Agropecuario. 1955, Asunción, 1961.

## Cuadro No. 15

PERU. Distribución de la Tierra bajo Cultivo en la Costa, en la Sierra y en la Selva

| Tamaño en Has. | Explotaciones Número | % | Superficies Hectáreas | % |
|---|---|---|---|---|
| En la Costa: | | | | |
| 0 a 5 | 35.974 | 80.72 | 50.314.56 | 6.61 |
| 5 a 10 | 3.857 | 8.65 | 27.512.00 | 3.62 |
| 10 a 100 | 4.856 | 10.89 | 105.785.14 | 13.89 |
| 100 o más | 873 | 1.96 | 577.543.90 | 75.88 |
| TOTALES | 44.550 | 100.00 | 751.155.60 | 100.00 |
| En la Sierra: | | | | |
| 0 a 10 | 23.440 | 82.42 | 77.178.05 | 17.63 |
| 10 a 30 | 3.426 | 12.04 | 60.522.99 | 13.82 |
| 30 a 200 | 1.217 | 4.28 | 80.658.11 | 18.41 |
| 200 o más | 357 | 1.26 | 219.472.01 | 50.14 |
| TOTALES | 28.444 | 100.00 | 437.831.16 | 100.00 |
| En la Selva: | | | | |
| 0 a 10 | 8.362 | 61.07 | 41.532.45 | 0.84 |
| 10 a 100 | 4.124 | 30.13 | 127.577.60 | 2.59 |
| 100 o más | 1.205 | 8.80 | 4.745.280.92 | 96.54 |
| TOTALES | 13.691 | 100.00 | 4.914.390.97 | 100.00 |

FUENTE: Comisión para la Reforma Agraria y Vivienda, la Reforma Agraria en el Perú, 1961.

## Cuadro No. 16

REPUBLICA DOMINICANA. Número y Tamaño de las Fincas en 1950 y 1960

| Area (en hectáreas) | 1950 Número | % | 1960 Número | % |
|---|---|---|---|---|
| Menos de 1 | 92.854 | 33.5 | 225.817 | 50.1 |
| 1 a 5 | 116.553 | 42.1 | 162.756 | 36.1 |
| 6 a 10 | 32.864 | 11.9 | 34.071 | 7.6 |
| 11 a 20 | 17.289 | 6.2 | 15.548 | 3.5 |
| 21 a 50 | 9.778 | 3.5 | 7.872 | 1.7 |
| 51 a 100 | 3.249 | 1.2 | 2.630 | 0.6 |
| 101 a 200 | 1.213 | 0.4 | 954 | 0.2 |
| 201 o más | 920 | 0.3 | 677 | 0.2 |
| No declaradas | 2.128 | 0.8 | - | - |
| TOTALES | 276.848 | 99.9 | 450.335 | 100.0 |

FUENTE: Adaptado de la Dirección General de Estadística y Censos, V Censo Nacional Agropecuario de 1960. Datos preliminares, II Parte, pag. 1.

## Cuadro No. 17

URUGUAY. Distribución, por Tamaño, de la Propiedad Agraria (1956 y 1961)

| Escala en Has. | Explotaciones 1956 No. de predios | % | Explotaciones 1961 No. de predios | % | Superficie Cubierta 1956 Miles de Has. | % | Superficie Cubierta 1961 Miles de Has. | % |
|---|---|---|---|---|---|---|---|---|
| 1 a 19 a/ | 39.710 | 44.6 | 39.829 | 45.8 | 324.1 | 1.9 | 319.5 | 1.9 |
| 20 a 99 | 27.666 | 30.6 | 25.205 | 29.0 | 1.266.1 | 7.6 | 1.169.8 | 6.9 |
| 100 a 999 | 18.549 | 20.8 | 18.087 | 20.8 | 5.818.1 | 34.7 | 5.825.1 | 34.3 |
| 1.000 a 2.499 | 2.443 | 2.7 | 2.587 | 3.0 | 3.794.3 | 22.6 | 3.994.2 | 23.5 |
| 2.500 o más | 1.162 | 1.3 | 1.222 | 1.6 | 3.557.4 | 33.2 | 5.679.8 | 33.4 |
| TOTALES | 89.130 | 100.0 | 86.928 | 100.0 | 16.760.0 | 100.0 | 16.988.4 | 100.0 |

a/ Los Censos Agropecuarios no cuantifican los predios menores a una hectárea.

FUENTE: Ministerio de Ganadería y Agricultura, Censo General Agropecuario, 1961. Montevideo, 1963.

Cuadro No. 18

| País | Economía | | Estratificación Social | | Cultura |
|---|---|---|---|---|---|
| | Ingreso per Cápita | Consumo de Calorías | % de ocupación agrícola en fuerza de trab. | % de ocupación en sector primario | % de analfabetismo |
| GRUPO I | | | | | |
| Haití | 54 | - | 83.2 | 1.4 | 89.0 |
| Guatemala | 160 | - | 74.9 | 2.7 | 71.0 |
| Honduras | 150 | - | 93.1 | 0.7 | 65.0 |
| República Dominicana | 160 | - | 69.6 | - | 57.0 |
| Nicaragua | 129 | - | 67.7 | - | 62.0 |
| El Salvador | 150 | - | 63.2 | 2.0 | 61.0 |
| GRUPO II | | | | | |
| Paraguay | 140 | - | 53.8 | 3.8 | 34.0 |
| Bolivia | 75 | - | 49.4 | 1.0 | 83.0 |
| GRUPO III | | | | | |
| Perú | 120 | 2.030 | 62.5 | - | 53.0 |
| Ecuador | 150 | - | 53.2 | 1.5 | 44.0 |
| Colombia | 250 | - | 53.9 | 17.0 | 38.0 |
| GRUPO IV | | | | | |
| Brasil | 230 | 2.360 | 50.5 | 3.1 | 51.0 |
| México | 220 | 2.270 | 57.8 | 6.5 | 43.0 |
| GRUPO V | | | | | |
| Panamá | 250 | - | 49.8 | 1.1 | 30.0 |
| Costa Rica | 181 | - | 54.7 | 15.0 | 21.0 |
| Venezuela | 540 | 2.230 | 41.3 | 4.8 | 48.0 |
| Cuba | 310 | - | 41.5 | 1.4 | 22.0 |
| GRUPO VI | | | | | |
| Chile | 360 | 2.490 | 29.6 | 2.3 | 20.0 |
| Uruguay | 440 | 2.810 | 21.7 | 31.0 | 15.0 |
| Argentina | 460 | 2.340 | 25.2 | 29.7 | 14.0 |

WORKING DRAFT NOT FOR QUOTATION

# TOWARDS AN ANALYTICAL MODEL OF THE ANDEAN PEASANT ECONOMY

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December 1, 1976

# CAPTIONS

Figure One: Climato-Ecological Gradation of the High Andes of Southern Peru and North Bolivia.

Figure Two: Organization of Production in the Andean Peasant Economy.

## ABSTRACT

A model of the Andean peasant economy is suggested, based on the interaction of production processes and the "vertical" ecology. Two spheres of production are found. The first, the household, is oriented to the short term, and utilizes a flexible fabric of social relations to obtain access to land and labor. The second, the supra-household, is oriented to the long term security of the household and operates through the principles of redistribution, equality of opportunity, reciprocity, and renewal of resources. The model's implications for the controversy over the nature of the "community" are discussed. Data come from the ethnographic literature of the Central Andes.

# TOWARDS AN ANALYTICAL MODEL OF THE ANDEAN PEASANT ECONOMY

The Andean area possesses a number of characteristics which make it the perfect laboratory to investigate topics in socio-cultural antrhopology. One such possibility is the resources it provides for research in economic anthropology. One can find in the Andean countryside many of the major techno-environmental adaptations of peasantry ranging from the nomadic herding of the Andeans camelids, the llama and alpaca, to slash and burn horticulture, to settled irrigation based agriculture, to fishing of the seawaters off the coast. An integral part of these adaptations in the indigenous highland regions are localized communities which are the remnants of a pre-contact empire marked by reciprocity and redistribution as the state spheres of integration. Reciprocity ranges from the prescriptive rules for the exchange of wives to the underlying notion that balanced reciprocity permeates all rural institutional bases of community life (Alberti and Mayer 1974). Redistribution can be found in land and water use and in the fiesta complex, which, somewhat imperfectly, tends to reduce levels of wealth, channeling it back into the community.

These aspects of the rural economy of the Andean area have been noted in many other peasant contexts (Wolf 1966). What is most peculiar about the Andean area is that it contains within its boundaries a mountainous topography located in the tropical latitudes. This combination produces an extreme ecological diversity based on variations in altitude. Altitude, in fact, is the most important determinant of the agrarian ecology in that each increment in altitude produces an ecological zone with a peculiar set of resources capable of being exploited by man. Further, as one goes higher the biotic diversity

that can be supported is reduced and climatic instability increases. Instability is most apparent in the periodic droughts that plague the highland population of southern Peru's department of Puno. With some exceptions, technology in the agricultural zones of the Andes is still traditional, producing an extremely risky agriculture closely attuned to the vagaries of climate.

In this ecological setting, one finds a peculiar set of subsistence strategies which may be subsumed under the rubric verticality. These strategies refer to the multiple exploitation of vertically arranged ecological zones. Verticality was first discovered as a principle through the ethnohistorical investigations of John Murra (1967). Vertical subsistence strategies permeate the Andean rural countryside particularly in the Central Andes where the influence of altitude is so great (Flores Ochoa 1970; Custred 1972; Arnold 1975; Browman 1974).

The current focus on verticality coincides with an upsurge of interest in the Andean peasant economy in the last few decades. Prior to that time most analyses of Andean economics were of the "feet of the natives is large" level of description (Berliner 1962). Some work has begun in the periodic and regional marketing systems (Esteva Fabregat 1970; Grollig 1966; Valcarcel 1947; Weldon and Morse 1970), and native systems of exchange have been looked into (Alberti and Mayer 1973). Most recently, production processes have garnered some attention.

Progress toward an understanding of the Andean rural economy has been hindered by a lack of consensus over a working paradigm in economic anthropology. In part, this is a reflection of the substantivist-formalist debate of the 1960's. After a period of strong

counter arguments (Cook 1966; Burling 1962; LeClair 1962; Cancian 1966) to the basic substantivist position (Dalton 1961) the debate subsided. The recent publication of Marshall Sahlins' Stone Age Economics (1972) followed by a strong formalist tour de force by Harold Schneider (1974) has tended to reopen the debate. While Sahlins moves away from a dogmatic substantivist position, instead combining Marxist, substantivist, evolutionary, and philosophical theorizing, Schneider takes a non-compromising formalist stance in applying microeconomic methodology to everything from the kula to social behavior in organizations. A third contender in the arena focuses around the writings of the French economic anthropologists, notably Maurice Godelier (1972).

One form of analysis, alluded to by Schneider (1974: 156-7) and discussed by others (Selby 1970; Prattis 1973) could loosely be referred to as the study of decision making. Decision analysis asks in essence the question: "why does the actor make a given decision in a given context?". Decision analysis is particularly appropriate to the analysis of cross-cultural economizing. Allocation of resources and the decisions involved in allocation problems are universal aspects of human behavior. They may be investigated either normatively, i.e., how an actor would indicate that they should be made (Stepick and Hendrix 1973) or how they are actually made (Davenport 1960). Decision analysis lends itself to formalization and provides a strong tool for looking at cultural and behavioral underpinnings to problems such as marriage and residence choice (Quinn 1975), politics (Bailey 1969), and migration (Stepick 1973).

Unfortunately the wide breadth of problems to which decision analysis can be applied troubles the observer who is accustomed to associating economics with the material provisioning of society. In this sense, production is the most basic process in all

economies and its analysis forces one to ask the crucial question of the relation of a society to its environment. As Cook and others have noted (Cook 1973; Laughlin 1974), focusing on production and the allocation strategies involved in production merges in a most creative fashion the disciplines of ecology and economics. The analysis of reasoned decision making in the production process of primitive and peasant societies brings into view the importance of ecological constraints such as climatic variation and the conflicting and periodic demands on labor and time during the agricultural cycle. An added advantage of such a merger is that it guards against a too deterministic application of cultural ecological models by stressing the flexibility in human responses to the environment. Further, analysis of production decisions within a given ecological context can provide answers to a number of questions concerning "efficiency" of input use, the degree of exploitation of production factors, the range of individual output along age, birth order, and other lines.

It is in the area of production strategies that some of the more sophisticated work in peasant economics has been done. Unfortunately, much of this work is little known among economic anthropologists, largely remaining confined to the economic and development economics literature. The most important of this work is a series of models of peasant household strategies, or the peculiar type of economic behavior which Polayni referred to as "householding" (Polayni 1957: 254).

These models lie at the heart of a debate over the efficiency of peasant production. Theodore Schultz (1964) argues that peasants are "poor but efficient" farmers, who allocate the factors of production at their disposal in a most rational and efficient manner. A contrasting position, on the other hand, is that of A.V. Chayanov (1966)

which has been applied to European and Indian peasant societies (Franklin 1969; Michie 1974) and recently reformulated (Millar 1970). It appears as part of Sahlins' attempt to formulate production principles at work in primitive societies (Sahlins 1973). According to Chayanov, the basis of the peasant economy is the family farm, an economic unit which exploits the members of the family as its primary labor source in producing for a level of subsistence and satisfaction, a "constant state of wellbeing", that is consistent with the perceived needs of the family. Once this level is reached, any additional production becomes superfluous and distasteful because of the drudgery involved. The level set by the equilibrium between the perceived needs of the family and the labor required to meet those ends is a crucial point; beyond it the family farm will not strive to maximize productivity or profits in the neoclassical sense of the firm. A third set of formal models, derived from decision theory (Luce and Raiffa 1957), provides measures of efficiency for allocation problems under uncertainty and risk, the two most relevant constraints in which peasant production decisions are made.

However, while models of household strategies are certainly useful in determining the nature of this sphere of the peasant economy, they can be criticized in their ability to explain the workings of the total economy. First, they do not explain the creation of social relationships which are an outcome of the production process and which ultimately fold-back to become themselves constraints on the accumulation of production capital. These relationships are extremely important in peasant economic systems where often they provide a viable means for obtaining production inputs in short supply. However, they involve "costs" which must eventually be paid and which can ultimately outstrip the ability of the debtor to repay. At the very least, social relations must be considered as a part of the production process.

The second criticism argues that the assumptions implicit in models of peasant householding are unrealistic or fail to take into account other spheres of the production process. One assumption of the Chayanov model is that a perceived "constant state of wellbeing" to which production is oriented is a function of the individual household. Students of peasant societies, however, are well aware of the role of the localized community in setting proper standards of conduct and would expect subsistence levels to emerge here rather than in the household. Close analysis of the literature on peasant societies reveals, in fact, a number of processes carried out at the level of the collectivity of households that provide economic benefits to the individual household. They include the construction and maintenance of technological inputs into the household production calculus, the collective defense of the land base against encroasion, the processing of information concerning the agricultural cycle, the setting and enforcing of ecologically sound rules regulating resource use, and so on. These processes can be viewed as a sphere of production oriented to the long term interests as opposed to the rather short term concerns of ordinary household production decisions.

This paper asserts that there is a supra-household sphere in the production process of Andean peasant communities. This sphere is similar to, but not necessarily coterminous with, the collectivity of social relationships known as the "community". Depending on the ecological constraints operating in any given locality, the supra-household will activate any of a number of resources to meet a particular need.

This paper will take some steps toward the construction of a model of the Andean peasant economy, focusing on the production processes of agriculturalists set within

the constraints of the Andean area. Since verticality is most pronounced in the Central Andean region of Peru and northern Bolivia and the literature is particularly abundant for this region, it will provide geographical limits to the paper. Peasants whose main subsistence strategy is shifting cultivation, fishing, or herding will not be dealt with here, unless it is one of a mix of strategies utilized by settled agriculturalists in exploiting a local ecological zone. Nor will peasants living within the boundaries of haciendas and engaged in contractual relations involving the exchange of labor for a usufruct plot be included. What follows best applies to agricultural peasants farming their own land and living in independent communities.

## ANDEAN ECOLOGY

The Andes mountains are part of a larger mountain chain properly known as the Cordillera which extends over 15.000 kms. from Alaska to Fuegomagellania. They are the dominant topographical feature of western South America presenting formidable mountain barriers with numerous peaks over 20.000 feet in altitude. Geographers usually make a division between the northern, central, and southern Andes. The Northern Andes include Colombia, Ecuador, and a small part of Peru. They are characterized by a double rainy season which supports wet rain forest in areas of high altitude between 10.000 and the snow line. Such areas are unfavorable for grazing llamas and alpacas, explaining their nonuse by people who occupied this region. The Central Andes have a contrasting rainy and dry season resulting in a highland covered by bunch grass ideal for grazing. The Southern Andes extend from Bolivia southward and are separated by a desert strip from north Chile to the Patagonian plateau. In the Central Andes the cordillera

separates into two branches, the eastern and western cordillera, creating the Altiplano, a wide intermontane basin in southern Peru and northern Bolivia.

The Andean cordillera lies largely in the tropical latitudes. This gives rise to a major difference in terms of temperature variation between it and the mountainous regions of the temperate and cold latitudes. In the higher latitudes there is a marked seasonal distinction between a cold winter and a warm summer, while in the mountainous regions of the tropics, even up to high altitudes and in the region of perennial frost and snow, there is little or no variation in mean monthly temperatures. Rather, the major variation occurs between day and night time temperatures. The diurnal range of temperature is at its highest in the dry intermontane basins such as the Puna de Atacama of northwest Argentina, northern Chile, and southern Bolivia.

As one ascends the tropical Andes, temperature decreases, producing successively colder thermal zones. The most important climatic variable is the occurrence of frosts. There is no winter frost as in the seasonal succession characteristic of high latitude mountain ranges, rather frost may occur during the night and be absent during the day. The frequency of night frosts determines the vertical zonation of landscape types such as the upper limits of agriculture and the upper limit of tree growth. Night frosts increase with altitude unless mediated by topographical features such as the ravine, or quebrada, where temperatures are lower than the more exposed landscapes.

The following figure, taken from Troll (1968: 33, fig. 14), illustrates the vertical zonation in southern Peru and northern Bolivia.

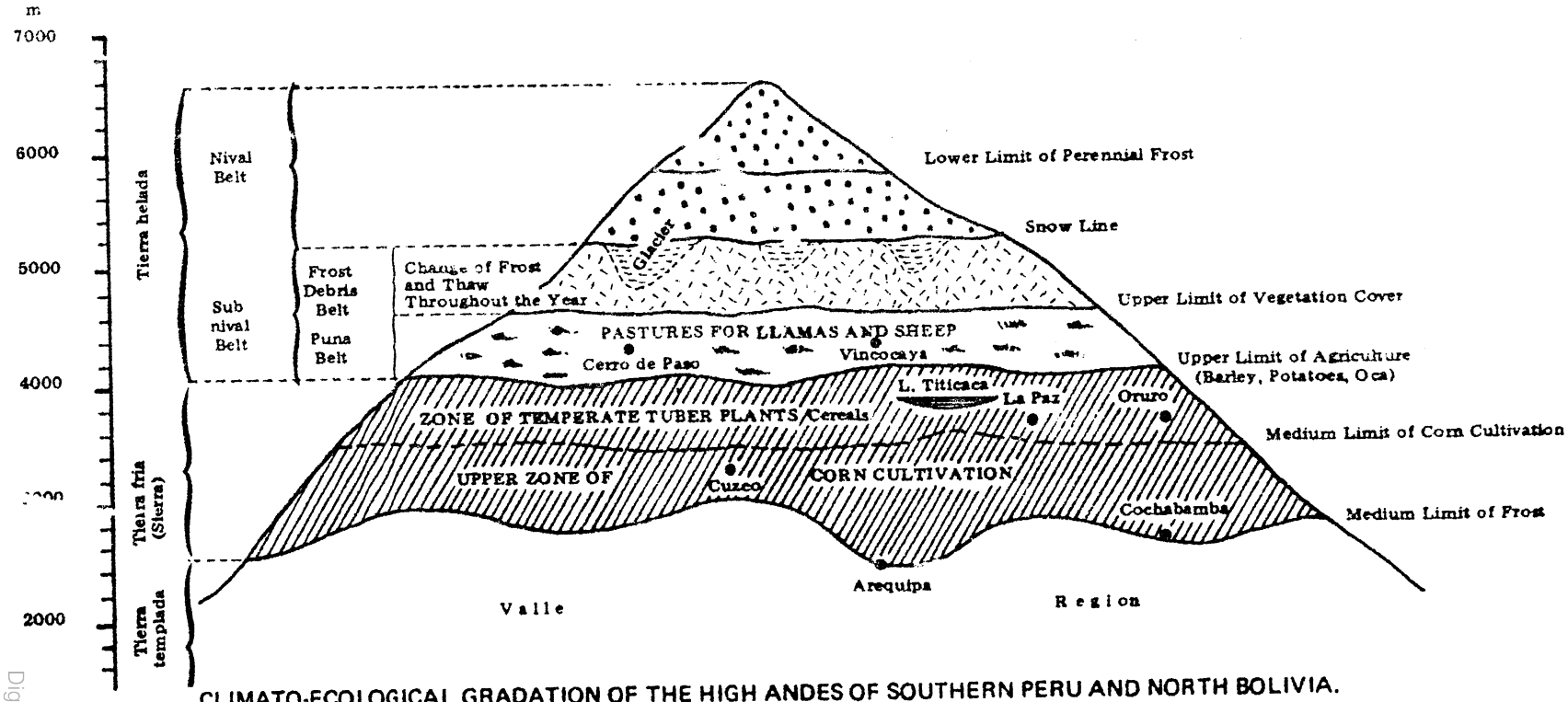
Figure 1 about here

Troll's comments on this region of the Andes are succinct:

> The lower limit of frost is at about 3. m. on the average. Up to 3.500 m. maize can be grown in the frost free rainy season. This zone is followed by the region of tuberiferous plants where wheat and barley were introduced in modern times, and which reaches up to the upper limit of cultivation at 4.100 m. In this altitudinal zone, on the Altiplano and in the Titicaca basin, in the valleys of La Paz and Cuzco, there is regular night-frost during the dry season which is made use of for the production of Chuno after the potato harvest. Still higher up, we get into the grassland of the puna region where llama and alpaca, the domestic animals of Inca times, and the wild vicuna have their ecologically appropriate environment. At 4.700 m. the uninterrupted plant cover ends, and a sort of frost desert (frigorideser tum) with nightly frost begins. This zone ends at 5.300 m. at the climatic snow line (Troll 1968: 33).

## THE HOUSEHOLD

The household is the fundamental axis of the Andean peasant economy. The production strategies of the household head involve the allocation of the factors of pro duction (his particular allocation of land, labor, and technological resources) at his dis posal throughout the period of the agricultural cycle. In deciding on one's production strategies a household head will invariably consider the labor of the household as a given; no cost or wage will enter into the calculation of labor as an input. While there may be inputs which are purchased, such as seed, fertilizer, insecticide, and sprecialized implements, they are qualitatively different from household labor.




CLIMATO-ECOLOGICAL GRADATION OF THE HIGH ANDES OF SOUTHERN PERU AND NORTH BOLIVIA.

Verticality, or the securing of products from a variety of vertically arraged ecological zones, is a basic principle to which production is oriented, either directly in the cultivation of crops which are consumed, or indirectly, in the production of goods from one zone which can be sold or traded to acquire products from other zones. It is particularly characteristic of the central Andean highlands where altitude is most pronounced as an ecological determinant (Brush 1973, 1974; Burchard 1971; Custred 1972; Gade 1967; Webster 1971).

Brush (1974) has surveyed ethnographic accounts of contemporary peasant communities and constructed a typology of patterns of verticality based on distance between ecological zones. The first type is "compact"--peasants reside in a settlement adjacent to two ecological zones and exploit these and other ecological zones no more than a day's walk from them. This type is most frequently found in the ecologically diverse eastern edge of the Andes. The second type is the archipelago, suggested by Murra's original discovery of the verticality pattern based on ethnohistorical research on the Chupaco of Hanuco and the Lupaka of the shores of Lake Titicaca, both ethnic groups of the immediate Contact period. Flores Ochoa (1970) has found evidence that the pattern reported for the Lupaka continues in a truncated version in southern Peru. In the archipelago type, ecological zones are not contiguous but rather dispersed over considerable distance necessitating migrations of up to ten days duration. The effect is to create "colonies" of a peasant community, controlled either by the community itself or by households. The third type is the extended, in which communities are found in the larger valleys in a dispersed settlement pattern. These communities tend to specialize in one of the products of an ecological zone and obtain products of other zones through exchange.

In the compact and archipelago types of verticality, one of the most important distinctions is between the ability of the community and the household to control strategically placed land. There is reason to believe that the community's control over ecological zones has dissipated due to a number of historical processes, including the expansion of haciendas into the fertile valley bottoms (Piel 1969) and most recently into the herding zones of the puna (Piel 1967), the specialization and subsequent dependence on exchange in the extended pattern of verticality, and the degeneration of land in an ecological zone, through erosion, over grazing, disregard of sectorial fallowing practices, and the like.

In societies when resources become scarce and population increases, unilineal descent groups, notably clans, often emerge to ensure the group's continuing subsistence (Netting 1974: 30-31). However, such groups are rare in peasant societies. Goldschmidt and Kunkel, in a comparative analysis of peasant family structure, hypothesized that their absence could be attributed to the unwillingness of the state to allow competing local political units and that quarrels and disputes would follow upon such control given scarce land resources and where the same plot is used year after year, unless the group were in fact a strong political entity (Goldschmidt and Kunkel 1971: 1060). In the type of Andean peasant economy described in this paper corporate descent groups are notably lacking. Instead kinship is usually bilateral (Fuenzalida 1967-68) and a variety of bases exist, such as frienship and fictive kinship, upon which short term social alliances can be founded. Certainly the changes in the demographic composition of rural society since Contact weakened the economic functions of the ayllu. It would seem that today, given these changes and the concomitant shifts in control over land, ad hoc alliances are

necessary to create and maintain access to strategically placed land in the vertical ecology of the Andes. Indeed the Andean experience supports the argument put forth elsewhere (Bloch 1974: 50) that the necessity of forming strategic alliances, with economic as well as political ends, requires a flexible social fabric offering multiple channels of association.

Control of strategically placed land at the household level is not an innovation in Andean production. Karen Spaulding has compiled a list of named plots of land in the 17th. century in what is today Huarochiri and compared them with their contemporary locations. She found that while the distance between an individual's plots of land had decreased over time, they continued to demonstrate household control over a variety of ecological zones (Spaulding 1972: 56).

One common means to gain access to strategically located land in contemporary communities is through the use of social relations. Brush in his work in a peasant community (1975) in the northern highlands of Peru, found that sharecropping was of major importance in equalizing access to resources distributed among the local mix of ecological zones. In his sample of the composition of sharecropping arrangements, an overall average of 69% of kinsmen were selected to be sharecroppers as compared with 31% for nonkinsmen. Interestingly, fictive kinsmen were relatively unimportant in the selection of sharecropping partners. Custred, on the other hand (1973: 44), finds that compadrazgo relations are important in the linking of peasants living in different ecological zones. And, finally, Burchard (1972, cited in Custred 1973: 43-44), suggests that marriage endogamy and exogamy may closely adjust to the location of and access to strategic types of land and manipulation of the social environment is incapable of solving the

need for a multizonal cultivation pattern, there is evidence that regional market systems and peripatetic traders also enter into the movement of goods deemed crucial for subsistence (Custred 1973: 44; Thomas 1973: 168).

The verticality constraint operates in other areas besides the location of cultivable land. Browman (1974) found that peasants residing in the puna zones often combine pastoral nomadism with agriculture in a single subsistence strategy. Roberts and Samaniego (n.d.) report that high altitude households consciously diversified economic strategies between various altitudinal zones and haciendas.

> We find the development of relationships that were based on marriage or compadrazgo with these different locations. These relationships represent the diversification of the household as a brother or sister moves to a different place, marries and settles there, but maintains social and economic relationships with the highland villages. The equal inheritance of family property amongst all siblings strengthened relationships between kin in different locations; the custom for the woman, especially the mother, to care for the animals, enabled males to work elsewhere. This economic differentiation by household was not necessarily a conscious strategy amongst highland villagers. Similar processes are reported from lowland villages and the nature of pastoral activity encouraged some family members to leave home and seek work elsewhere (Roberts and Samaniego n.d.: 10).

Multizonal production strategies in the Andes are consistent with findings in other parts of Latin America (González Jacome 1976; Murphy and Stepick 1974) of peasants utilizing resources in a variety of locations in meeting production ends.

## INTER-HOUSEHOLD LABOR RECRUITMENT

One of the most perplexing problems of reviewing the Central Andean literature is to create order out of the variety of terms used locally to describe forms of labor

recruitment. These terms include ayni, minka, trabajos de republica, torna-peon, faena, waje-waje and jornal. The problem is that the meaning of a term shifts on a micro-regional basis. For example, minka means labor exchanges on a day paid for day worked basis along with the provision of food and drink (Ghersi Barrera 1961: 97) in Marcara; festive group labor with expectations of reciprocity in Viru (Holmberg 1954: 62); an individual who is one's replacement for labor obligated in an earlier labor exchange in Taraco (Ghersi and Arquinio 1966: 20); festive group labor with no expectation of reciprocity in Soras (Turpaud and Boluarte 1966: 68) and wage labor in Huarochiri (Guillern de Boluarte 1958: 53). This problem was encountered by Fuenzalida (1970) in a review of the Andean literature on class and ethnicity. It occurs as a result of the strong micro-regional distinctions that the Andean topography engenders.

In order to systematize our review of forms of labor recruitment we have used with some modifications the classification proposed by Udy (1959) in his cross-cultural analysis of the organization of work.

Table 1 about here

Four different forms of labor recruitment can be found in the literature. The first, already mentioned, is familial labor, a "given" exploited as such by the household head. The second is reciprocal labor, of basically two types. The first, called exchange labor by Udy (1959: 57-58) is work reciprocated for work performed; the other form is referred to by Erasmus (1955: 175) as festive labor. Festive labor involves the provision by the host of quantities of food and drink. A festive atmosphere permeates

TABLE 1

FORMS OF LABOR RECRUITMENT FOLLOWING UDY (1959)

| | | |
|---|---|---|
| Familial (household) | Obligation to participate is based on ascribed kinship or fictive kinship status in household | |
| Contractual | Exchange of one's labor for cash or the equivalent in kind | Minka: Ghersi Barrera, 1961: 97 Guillen de Boluarte 1958: 58 Mendizabal Losak 1964: 79 Custred 1973: 24 |
| Reciprocal --exchange | Day paid for day worked "balanced exchange" | Minka: Fonseca and Murrugarra 1966: 14; Ayne: Castillo et al. n.d., 25-26; Ghersi and Arquinio 1966: 20; Turpaud and Boluarte 1966: 27; Mishkin 1960: 169-170. Huallpo: Celestino 1972: 84. Huaji: Adams 1959: 124. Waje-waje: Fonseca 1974. |
| --festive | Festive work party with no immediate expectation of reciprocity | Minka: "Turpaud and Boluarte 1966: 27-28; Vazquez 1952: 102; Holmberg 1954: 62. |
| Custodial | Obligation to participate is based on differential ascribed power. Sanctions compel participation. | Republica: Ghersi Barrera 1961: 96; Vazquez 1964: 60; Faena: Guillen de Boluarte 1958: 63-64; Mendizabal 1964: 63, 80; Cotler 1959: 60; Maynard 1964: 50; Andrews 1965: 57; Boluarte Garay 1958: 289. |

the occasion and the host has no obligations to reciprocate the labor recruited, although he is expected to attend other festive work parties. Contractual labor is defined by Udy (1959: 57) as a voluntary contract between two parties, i.e., an agreement to behave in a specified way for a specified time in the future. The most crucial diacritica of this form is that one's labor is exchanged via a spoken but usually unwritten contract for cash or the equivalent in kind. Custodial labor is based (Udy 1959: 57) on a different set of principles and will be discussed at a later point.

The utilization of reciprocal labor is a common strategy in the tool kit of peasant households around the world (Georgescu-Roegen 1969). Recruiting labor through the creation of social ties is a rational adaptation to the periodic undersupply of labor and the problems of scheduling. However, Charles Erasmus has argued (1955; 1956) that there has been a general decline in reciprocal labor in Latin America as a result of the diffusion of the market economy and the availability of cash. The Andean literature reveals that the festive form of labor recruitment is indeed on the decline, while labor exchanges of the day paid for day worked variety appear to be flourishing (Mayer and Zamalloa 1974: 74). Even in communities such as Lampian in the Chancay Valley of Peru's central coast, where cash cropping has almost entirely replaced subsistence agriculture, exchange of labor has not disappeared but rather intensified (Celestino 1972: 84-85).

The reasons for the persistence of reciprocal labor are complex. It can be argued that balanced labor exchanges are more efficient than the contractual exchanges. The norm of reciprocity is extremely strong in Andean society. As in Benedict's analysis of the interaction of the members of a family firm (Benedict 1968), a peasant would

likely evaluate the gains and losses of reciprocal behavior as a positive incentive to recruit exchange labor over contractual labor. Such an explanation has been given in the transition to labor intensive cash crops where the pattern of labor recruitment reflects increasing use of reciprocal and familial labor as opposed to contractual labor (Guillet 1976b).

A second explanation for the perseverance of reciprocal labor is related to the differential modes of technology and the characteristics of vertically arranged ecological zones. In the lower altitudes, where maize is grown, the agricultural cycle and the use of indigenous technology would ordinarily involve periods of labor scarcity, primarily soil preparation, weeding, and harvest. However, the post-Conquest introduction of the plow and the oxen, and more recently, the tractor, has drastically reduced labor requirements in the soil preparation phase of maize cultivation. Harvest continues to be a period where extra-household labor in needed.

In general, in the higher altitudinal zones of the puna, technology remains traditional, suggesting in those communities which cultivate both maiza and potatoes, the anomaly of a technologically progressive maize agriculture alongside, or rather "below", a traditional paleotecnic tuber agriculture. This is a superficial impression, however. There are numerous reasons why technology is traditional in the tuber zones. Plow and oxen cannot negotiate the steep slopes of the high altitudes, plots are often quite small and studded with rocks, strenuous work by oxen at altitudes above 4.000 m. may lead to an increased incidence of pathological conditions (brisket disease) associated with hypoxic stress, and transhumant migration to higher areas in the rainy season would expose

oxen to stressful climatic conditions (Thomas 1973: 127-28). For these reasons the ubiquitous Andean footplow, the **chakitaclla**, is best adapted to high altitude tuber cultivation.

The chakitaclla involves a masa of two to three adult men wielding the foot plow and another person who pulls the piece of sod over on its back to expose the roots to the killing rays of the sun. Since plots are widely distributed among the cultivable sectors of the sectorially fallowed lower puna, the most efficient use of labor is several masas moving together in tandem until the plot is finished.

Chakitaclla technology in the higher altitudinal zones requires extra-household labor which is usually met by work groups recruited for the particular task. Not only soil preparation, but other tasks of tuber and grain cultivation in the lower puna zones are carried out by these reciprocal work groups. Thus the persistence of reciprocal labor is a function of the interaction of environment and available technology in the higher altitudinal zones.

The constraints involved in recruiting an exchange labor group should tell us something about its characteristics. Basically, additional labor is needed by a household head to meet a peak period. No division of labor is necessary in that any adult is capable of performing the task. And, the size of the group can vary according to the quantity of land to be worked. Under these conditions, we would expect exchange labor groups to consist of sets of dyadic relationships to the individual recruiting the group. These groups would manifest few differences of authority or power since such

distinctions are immaterial to the groups' functioning. And they would be short term, ending when the immediate reciprocities had been worked out.

Several bases for recruitment into an exchange labor group exist. Some writers suggest that there has been a shift from kinship to territorality as a basis for recruitment (Mishkin 1964: 148), while others argue that kinsmen, particularly collaterals, are those who form the most frequent ayne partners (Custred 1973; Mayer and Zamalloa 1974). Most Andean communities are organized into sectors, barrios, and other named community divisions in which residence over laps with kinship (Mayer and Zamalloa 1974: 79). Thus, some confusion can be expected in distinguishing between kinship and territorality as a basis for recruitment. However, no regular recruitment principle is necessary and any ties between members of a group are incidental to the group's existence (Foster 1975: 384-85).

Where the constraints involved in recruiting exchange labor groups change, then they may take on considerably different characteristics. Lampian, a community in a Peruvian coastal valley, has recently shifted from subsistence to the cash cropping of tree crops. Celestino (1972: 84-85) documents the transformation of the traditional exchange labor form, called huallpa, into "work societies" which provide mutual aid and cash income by contracting themselves out to other parties. As a result, labor is relatively constant in demand, some division of labor and decision making is required, and there are advantages to a stable group membership. The work societies thus have an administrative hierarchy, operating rules, and last for as long as four years. There does not seem to be any regular recruitment principle at work; not only kinsmen, but friends and fellow soccer team members will make up a work group.

It should be obvious that labor recruitment is one of the most strategic decisions faced by the household head. He must constantly weigh the "costs" of the types of labor available to him against the return they provide. Otherwise the creation of social relationships as a form of labor recruitment can ultimately create obligations which outstrip the ability of the individual to repay.

Contractual labor paid either in cash or in kind is another form of labor recruitment available to the household head. Fonseca (1974: 96) found in Chaupiwaranga in the central highlands of Peru that peasants who have little land will enter into contractual arrangements paid in kind in order to get needed foodstuffs. They do not ordinarily seek out wage labor opportunities unless there is a strong need for a manufactured item that must be purchased. A household head prefers this kind of labor during harvest when he can use a surplus as payment. Fonseca argues that this kind of exchange tends to redistribute surpluses and equalize distribution of surpluses from different ecological zones.

There are indications that recruitment of wage labor is not common in Andean communities (Mayer and Zamalloa 1974). Some reasons are perhaps obvious: cash is scarce in a subsistence economy; peasants are not accustomed to the intricacies of purchasing one's staples on the market and prefer to be paid in kind; and it is questionable whether wage labor is as efficient as reciprocal labor. A less obvious reason is the relation between wage labor recruitment and stratification. The mestizo stratum of rural communities is most often associated with the recruitment of wage labor. This grouping acts as an intermediary between the indigenous population and the larger "national"

society (Fuenzalida 1970: 66-70). Depending on the micro-regional context, this group may be referred to as cholo, mestizo, misti, and a number of other terms. Mestizos are tied in to the cash economy and are thus in a better position to pay labor. They do not ordinarily enter into the affairs of the local community, however, except on opportunistic occasions such as the recruitment of labor, or in political manuevering (Guillet 1975). They ordinarily do not abide by the norms, including reciprocity, governing the behavior of members of peasant communities, and thus are not in a position to recruit efficient reciprocal labor. Even if they could, their superordinate position in the local stratification system would preclude their working alongside a subsistence peasant.

The pervasiveness of reciprocal labor has led to a persistent misinterpretation of the nature of the Andean peasant economy. It has been interpreted by writers ranging from the "Indianistas" of the early 20th. century to the contemporary planners of the agrarian reform as based on a social matrix of cooperation and an economic base of collectivism. Our analysis points out that the household is primordial in the peasant economy and is the preferred unit for land use, labor recruitment, and production for consumption. Reciprocal labor is the most efficient mechanism through which the household head is able to meet his extraordinary labor needs during the agricultural cycle.

There is evidence that the Chayanov model would be particularly appropriate for the analysis of Andean household production decisions. First, peasant households operate family farms in which the labor of the household is exploited as a given. Second, there is data to suggest that "target" notions are at work in the production calculus of each household.

One important notion of subsistence is in the continued use of the term topo as a measurement of land. This term has been found through ethnohistorical investigation (Rostworski de Diez Canseco, 1962) to refer to the amount of land considered to meet the subsistence needs of the household. Contrary to the efforts of Colonial and Republican authorities, the amount could not be quantified absolutely, but varied according to the size of the hosehold, the quality of land, and its location in one of several micro-ecological zones. The same author suggests further that there was a fixed quantity of chicha, the fermented corn beverage, that was set for daily use, in fiestas, and ritual libation. This accords with at least one contemporary use of chicha, in the hurk'a, which is a fixed quantity of chicha, as well as coca, rum, and cigarettes, that is consumed during the morning and afternoon break from work in the fields. Thus, while we cannot be absolutely certain of contemporary "ethno" notions of subsistence, there is both observational and ethnohistorical data to suggest that such notions exist.

In our model of the Andean peasant economy a major sphere of production lies at the household level. In meeting the needs of his household the head strives for an optimum allocation of the inputs at his disposal, namely land and labor, throughout the agricultural cycle. While his subsistence targets may be relatively low, he nevertheless expends considerable amounts of time and effort in meeting them. One major constraint on his production strategies is the necessity of producing a mix of crops in each of the locally relevant ecological zones. Ideally, the household would have access to land in each of these zones and sufficient labor to meet its needs. Seldom do we find such an ideal situation, however, and in fact there is usually a considerable maldistribution of land. The peasant's solution is to create a flexible fabric of social relations which

can be utilized to gain access to strategically placed land and labor when needs occur. We do not find inflexible social arrangements, such as unilineal descent groups, which bind one to a specific set of resources. A price is paid, however, by the requirements of flexibility. This price is the time, labor, cash, and kind, which must be expended to establish and maintain social relations. The peasant is not unaware of this and is constantly weighing the costs and benefits of these social relations of production.

## THE SUPRA-HOUSEHOLD SPHERE OF PRODUCTION

Most analyses of peasant production stop after having presented the production strategies of a set of households and their cumulative effects as revealed in aggregated macro-economic data (Chayanov 1966; Franklin 1969; Lipton 1968; Schultz 1964). Where this approach prevails, variations in cumulative production patterns are a result of variations in the state of certain key variables in the household, in particular, the composition of the work force, the nature and area of the land at the disposal of the household, and its particular stage in the domestic cycle.

Such a view tends to isolate the household from the socio-cultural matrix in which it is, in reality, inextricably enmeshed. As a result, there has built up around the household production unit qua peasant economy a set of assumptions which are either misleading or incorrect. They include: the peasant household is a self-contained production unit oriented to the present, responding to subsistence levels which it sets, and acting alone to allocate production factors as changing external constraints require. I would like to suggest that such a view of production is myopic in that it ignores economic processes which operate at the level of a collectivity of peasant households. The remainder of this section will expand on this theme with reference to the Central Andes.

The ability of the household to meet short term subsistence needs depends on the availability over time of an adequate supply of factors of production. There are a number of constraints, however, which can threaten household economic security. Several of these are outside the ability of the individual household, through its personal network of kinsmen, friends, neighbors, and fictive kinsmen, to control, and point toward responses of a collective nature. These constraints include the following:

1. Certain technological inputs into the household production calculus require very large inputs of labor, as well as coordination, and often specialization, in their construction and maintenance.

2. Factor proportionality, of land, labor, and technological inputs, is essential for the short term production goals of individual households. Within certain limits, the individual household is capable of adjusting for shortages in one factor. Indirect usufruct alleviates the problem of variations in land distribution and labor exchange between households in a common means of meeting labor requirements during peak periods of the agricultural cycle. Over the long term, however, major adjustments must be made to significant transformations in the factor mix. Demographic trends and their effect on the man/land ratio is a case in point. The population curve for the Central Andes, reflects, in general, a steep drop immediately following Contact, followed by a slower decline to a low point in the mid-eighteenth, and a slow recovery since then (Smith 1970). The introduction of improved

health and sanitation practices in this century has reduced the infant mortality rate causing rapid and sustained growth. Such growth has put tremendous pressure on the land base of contemporary peasant communities.

3. Conflicting demands on time and labor must be scheduled and coordinated among the collectivity of households.

4. Land and certain technological factors such as terracing, irrigation systems, and other earth works are resources which must be renewed unless they are to degenerate and threaten the resource base of the individual household. In order to maintain these in a productive state, a system of rules regarding their use is required. These rules must be tailored to the local ecological setting, agreed on, and enforced by some set of sanctions, formal or informal.

5. Land in the Central Andes has been the object of pressures in the larger society to alienate it from local control. In order to maintain, let alone, expand, the land base of the household, an active and defensive posture must be maintained. One of the key sources of power, in this regard, has been action of a legal and extra-legal nature by collectivities of peasants.

Each of these constraints, the ethnographic and historical literature suggests, poses a constant threat to the long term survival of the individual household. Responses to each, however, must come from collectivities of households since they are outside the

control of the individual household. The first place to look for such responses is in that field of collective behavior which includes the political process and its ritual structure.

## RITUAL AND THE SUPRA-HOUSEHOLD

One of the more pervasive features of Andean rural life is the ubiquitous fiesta complex (Martinez 1959; Mangin 1961). The fiesta complex covers a wide range of ritual activity including a secular component of socializing, dancing, and the partaking of ritual accompaniments of food and drink and often a religious component taken from Catholic practices such as the celebration of a mass, the procession, and special individual rights. Following the suggestion of Dewey (1970), the fiesta complex can be classified into two types of ritual activity: (1) egocentered ritual marking important life crises of an individual such as birth, the first communion, marriage, and death, and (2) group-centered ritual honoring and expressing community identity.

Group centered ritual both celebrates specific observances of the Catholic religious calendar and acknowledges the major sequences of the agricultural calendar. The number of agricultural rituals that have been noted is large, including: rituals associated with the potato harvest (Vivanco Flores 1971; Choqueccahua 1971); the maize harvest (Antonio Manya 1971; Mayta Medina 1971); the provision of rain (Cuba de Nordt 1971); cleaning of the irrigation system (Isbell 1974; Mitchell 1976), and several rite associated with domesticated animals (Merelle-Lucette Roy 1971; Delgado Urquizo 1971; Cuba de Nordt 1971).

One ecological constraint that has been used (Flannery 1972) to predict social organization and social relationships is "scheduling". Scheduling involves the periodic decisions relating to collective allocations of time and labor. In the Andes, Catholic feast days are selectively incorporated into the fiesta complex to the degree that they overlap with major events in the agricultural cycle. Fonseca (1974: 99) documents the organization by community officials in central Peru of an annual ritual which is a signal to begin the maize seeding period and coincides with the Catholic saint day of the Virgin of Rosalio. The maize seeding period is closed with a similar ritual on another important Catholic feast day, Todos Santos. The use of feast days as agricultural markers is found in other communities in the region in which Fonseca worked (Fonseca 1974: 101-102). In Maras, in the southern highlands of Peru, the fiesta of the cross is a symbol of protection and abundance and marks the beginning and end of the maize cycle (Osvaldo Urbano 1974: 44-45). In this community, the fiesta further indicates a control over factors of production in that it recruits from and legitimizes the households that are granted water rights for the coming year (Osvaldo Urbano 1974: 45).

Ego-centered fiestas tend to be private, recruiting participants from an intimate circle of relatives, friends, and fictive kin. They are an important mechanism through which the larger community recognizes and accommodates to the role changes of an individual. From a different perspective, they are important as staging grounds for the recruiting of social relations for economic ends.

Group-centered fiestas, on the other hand, tend to recruit participants from among all of the residents of a community. As in other group-centered rituals such as the Javanese slametan studied by Geertz (1957), they express and reinforce community

identity. In the fiesta, relationships can be created and renewed, tensions released in a relaxed atmosphere, a forum provided for the socialization of children into correct ritual behavior, and opportunities created for courtship and occasional sexual encounters. Through participation in group-centered fiestas, an individual encounters an opportunity to resolve conflicts that have arisen on a day-to-day basis, and symbolically reassert an ideal of harmony with the interests of his community.

In both types of fiestas, sponsorship of ritual components plays an important role; in private, ego-centered fiestas, individuals sponsor other individuals, thus creating formal fictive ties of compadrazgo that last the lifetime of the individuals involved. Public fiestas involve a qualitatively different form of ritual sponsorship. They provide a core element of the socio-political organization of Andean rural communities through the mechanism of rotation and selection of individual sponsors of fiesta ritual. As in Mesoamerica (Cancian 1965), this mechanism, referred to as the alferado, envarado, or mayordomo system in the Andean literature, directly feeds into the socio-political organization of Andean communities in that sponsors of fiesta ritual alternate with political office holding (Fuenzalida 1967-68). Through the public fiesta complex, peasants control recruitment to local political office by requiring identification with community norms through ritual participation and the ceremonial expenditures of ritual sponsorship.

The fiesta complex is a "control" mechanism, to use Flannery's term (1972), which acts to process information concerning the distribution of land, the scheduling of agricultural tasks, and the coordination of conflicting demands on labor utilization.

Further, through ceremonial expenditures it becomes a leveling mechanism, or a "social or religious institution(s) which pick up information on inequalities in landholding, wealth, or power and regulates these variables before they exceed the goal ranges of egalitarian society" (Flannery 1972: 414).

Is the fiesta complex successful in its role as a leveling mechanism? Cancian's work (1965; 1974) on the cargo system of the Mesoamerican village of Zinacantan suggests strongly that it does not eliminate stratification. Comparable studies for Andean cargo systems and their relation to stratification do not exist, but what is interesting is that there is an amazing tendency for the fiesta complex, when stressed, to readapt itself through transformation, changes in ritual content, or adjustments made to the ceremonial expenditure overhead (Isbell 1971; Guillet 1974; Degregori and Golte 1973: 17-19).

## ECONOMIC PROCESSES AND THE SUPRA-HOUSEHOLD

A much more direct mechanism for regulating resource distribution than the fiesta complex is the annual redistribution of land found in many contemporary communities (Malengreau 1972: 4; Degregori and Golte 1973: 13-14; Fonseca 1974: 107). In essence, a local official presides over a meeting of household heads at the start of the agricultural cycle. His responsibility is to identify land vacated due to death or out-migration leaving no cultivator. Such land is then redistributed to a new household or a household having no land in the particular zone.

Redistribution of land is a practice with roots in pre-Incan society. In ins pristine form, all land was controlled by the community and given to individual households

in usufruct. Since Contact, a variety of factors have weakened the redistributive mechanism. Land has been "privitized" in many instances, allowing it to be bought or sold on the open market. Causes of this process are usually attributed to comoditization of communal land and its subsequent alienation by market forces. Legal protection of communal lands has often been lacking. A further degeneration of the redistributive mechanism in those communities where it continues to be practiced is the accumulation by individual households of considerable quantities of land due to a failure of the community to regain control following death or out migration (Mishkin 1964). Accumulation of land leads to economic stratification and tension between land rich and land poor especially in relation to the increase in population in this century. The use of indirect usufruct practices by migrants to maintain control over their land in their communities of origin became so flagrant in Peru that it resulted in a clause in the 1969 agrarian reform law prohibiting indirect usufruct (Guillet 1976a).

When we examine the ethnographic literature we find that often land use practices at the supra-household level will vary in relation to vertical zonation. Similar variation in the use of production factors is found at the household level and reflects the peculiar nature of the Andean ecology. In general, communal control, individual usufruct, and redistribution are found primarily in the higher sectorially fallowed zones, while private ownership and control tends to occur at the lower altitudes in irrigated land (Degregori and Golte 1973: 13-22). Reasons for this pattern are complex. The lower zones are best suited, especially with irrigation, for the cultivation of cash crops oriented to urban centers. Fuenzalida documents the privitization of land in Huayruropampa dating from the beginning of this century when the community began to grow

maize for the urban center of Chancay on Peru's central coast. Similarly, onions, a crop destined for sale, were first introduced on the fertile, irrigated, bottomlands of the Pampa de Anta, a region in the Department of Cuzco (Guillet 1976b).

Privitization has not generally affected the higher cultivable reaches of peasant communities. These zones are cultivated in a sectorial-fallowing sequence in which domestic animals are allowed to pasture in sections left to fallow. As Custred comments, concerning one particular area where sectorial fallowing is practiced: "the ecological cycle of soil-plant-animal... is a necessary feature of the lower puna ecotype thereby making cultivation and herding inseparable aspects of lower puna peasant subsistence" (Custred 1973: 38). This fact lies behind the observation of Fuenzalida that the major obstacle to the privitization of sectorial fallowing lands is the fear that this will restrain access to pasture (Fuenzalida 1968: 94-95). Mitchell has argued (1974: 9-10) in a similar vein that, in the community he studied, the long fallow period allowed the growth of wild grasses, shrubs, and underbrush. It followed that "the real meaning of communal tenure is not that everyone can cultivate here but that the entire community has the right to use these wild products. People from the montane savannah can thus exploit the terrain for firewood, herbs and other materials, even though they have cultivation rights. The person with cultivation rights cannot prohibit this use of the land". Perhaps the basic reason for the variation is land use among the various altitudinal zones stems from the fragility of the higher zones. Lower zones, which do not require a fallow or rotation cycle are allowed to be bought and sold on the open market; while higher zones if alienated from community control and the effect of formal and informal sanction,

would be subject to detrimental practices such as over-grazing, deforestation, or disregard for the sectorial fallowing cycle, any one of which would endanger the regenerative and cyclical aspects of high altitude agriculture.

When we examine the redistributive mechanisms as well as other economic processes of the supra-household to be described below, we find usually a set of local officials with authority to make economic decisions, delegated to them by the collectivity of households. They are at base political officials inasmuch as they succeed to office through the political process and ultimately its structural underpinnings in the cargo system. But their duties often bring them into the economic sphere, and their performance is evaluated more closely here than in their more overtly "political" responsibilities. They are expected to exercise their authority in such a way that resources are distributed fairly throughout the collectivity of households and that the crucial ecological parameters of the resource are maintained. If these essentially economic principles are met, then considerable leeway is allowed them in other behavioral aspects of their role. As an example, in a community in southern Peru, a local official incurred a serious challenge to his authority when he broke the rules of the rotation sequence during the annual redistribution by allowing peasants to clear land in a sector of a sectorial fallowing system that was to have lain fallow that year. This charge surfaced as a major issue despite the individual's breaking of a number of rules regulating the political process (Guillet 1975).

The role of local officials can be contrasted with that of a second constituent of the supra-household; the assembly. The assembly is most simply a meeting of the

collectivity of household heads called by local officials on regularly scheduled days or as the occasion arises. A number of topics can take up the time of an assembly; for our purposes, the more important are those which involve the state of the resource base upon which the individual households depend. The assembly thus provides a forum for the discussion of issues such as the scheduling of agricultural tasks; the construction and maintenance of technological inputs into the household production calculus, such as irrigation, terracing, road construction and maintenance, etc.; the delineation of ecologically sound agricultural practices which do not degenerate the resource base; and the discussion of innovations with respect to their social, political, and economic effects, on the collectivity of households. It is most important to realize that these discussions are face-to-face and strongly oriented to solutions involving a consensus of the individuals present. Individuals are not necessarily "equal" in their contribution to the resolution of an issue: assemblies are usually gerontracies in which the older established male members of the community are numerically over represented and reflect a prestige hierarchy based on achievement in the civil-religious hierarchy. In contrast to the local official delegated authority and the individual household head, the assembly operates on the principles of collective decision making as opposed to individual decision making among the former.

The delegation of authority to local officials allows them to recruit labor for purposes of the supra-household. When a need for considerable amounts of labor is felt, a vote will be taken in an assembly and a faena, or less commonly referred to as republica, will be called. A faena is a work party in which all male household heads are required to contribute their labor for an amount of time specified by the assembly.

Female heads of households do not ordinarily have to contribute labor in person but are encouraged to send one of the male members of the household or contribute in food or drink. This labor is applied to the construction, maintenance, and renewal of technological resources that figure prominently in each household's production calculus. They include roads, earth works, irrigation systems, and similar labor intensive public works, as well as projects in benefit of the community, such as schools, churches, and cemeteries. The faena and republica are custodial forms of labor recruitment, to use Udy's (1959) term. The obligation to participate is based on differentially ascribed power of the local authorities. Sanctions, both formal and informal, compel participation.

Irrigation systems, commonly encountered in Andean communities, are a good example of a response at the supra-household level to constraints on household production. Unlike the "irrigation bureaucracies" found in some societies, the Andean systems are usually small in size and in scale, often confined to a community or adjacent communities. Available reports (Mitchell 1976; Adams 1959: 127) reveal a two level division of responsibilities: individual households maintain branch canals while the main canal is the responsibility of the collectivity of households. Although small in scale, these systems do require considerable labor for their construction and, once in operation, need periodic maintenance, usually cleaning of the canals, and a minimal amount of coordination and administration. Ritual is commonly used to schedule maintenance tasks, and we find the delegation of authority over the system to regular political officials, or a special officer, such as the juez de aguas, or a committee, such as the junta de regantes.

There are indications that the technological constraints associated with irrigation underwrite forms of communal organization. Citing his own work and that of Zuidema and Isbell, Mitchell (1976) traces common forms, such as the barrio division, to the manner in which irrigation is organized. A division into halves, or quarters, may well be necessary as an organizational requirement of Andean irrigation systems as well as other tasks which require the recruitment, sanctioning, coordination, and allocation of custodial labor. In my own work in the Pampa de Anta region of southern Peru I have found community reorganization as a response to population increase and the need to more effectively organize faena labor (Guillet 1975).

There is another area in which the supra-household operates to assure the short term viability of the household. This is in relation to the powerlessness of the peasants in the Andes, and the necessity to maintain an aggressive posture to defend and to retain access to land. Some writers have gone so far as to characterize this as the most important function of the community. Adams (1962: 427-428) says, for example, that peasant communities "are characterized by a defensive action to protect their members from a threat. Insofar as we can tell from ethnohistorical reconstruction, the communities come into being when they are in fact restricted or excluded from access to resources". A survey of peasant communities in the same year that Adams wrote revealed that boundary conflicts over land were their most important problem (Dobyns and Carrasco 1962: 1 - 5).

What are the responses of the supra-household in this regard? One set of activities regards the delineation of the boundaries of land in a community. Mayer (1974: 56) describes an annual meeting of local authorities and household heads to

walk around the boundaries of the community (referred to as the lindero muyuy). In other communities such as Huayopampa in the Chancay Valley of Peru, there is an annual meeting to repair walls and gates which demarcate pasture land, which in this case is land left to fallow. These walls and gates are also coterminous with the various sectors in the sectorial fallowing system. On this day, the date is set in an assembly for the harvest.

The history of man-land relations in the Central Andes is replete with instances of alienation of land by forces in the larger society (C.I.D.A. 1966: 9-18). There are also numerous examples of activities taken by peasant communities to retain access to their land. Historically, there have been isolated and sporadic Indian uprisings, usually termed rebellions, since the beginning of the Colonial period. They were contained through bloody manifestations of force on the part of the landowners or the national military. With the exception of the Tupac Amaru II movement in the late Colonial period, the rebellions have never been thought of as having any real effect on the agrarian base and due to a lack of coordination cannot be characterized as true peasant movement.

Coordinated peasant movements began in the early 1950's in the Cochabamba Valley of Bolivia (Dandler 1969) and led to the agrarian reform law of the MNR govern ment in 1952. The first evidence of a peasant movement in Peru occurred in the late 1950's in the Convencion Valley of the Department of Cuzco. The land issue has been the major motivating factor behind the numerous land invasions by peasants in Peru, which reached a high point in 1963 when in the Department of Cuzco alone, 114 haciendas were invaded and held by peasants (Maclean y Estenos 1965: 135).

In the majority of the cases reported in the literature, the goals have been specific: getting back land which peasants claimed through old colonial titles, or repossessing land which had been encroached upon by haciendas. But a characteristic of the land goals of the peasant movement has been their conservative nature. One does not find a revolutionary goal of remodeling society but rather of protecting or attempting to take back traditional land holdings. While, certainly, land redistribution can have major impact upon the structure of rural society, societal reordering does not emerge as the primary goal of peasants. This conservative nature has at times conflicted with the misunderstood and illusive goals of the ideological interest groups working with peasants (Anibal Quijano 1965: 45-46).

Violence or threat of violence is perhaps one of the most common forms of redress available to peasants in the Andean countries. Negotiated settlement of issues involving land is much less common, although it does occur occasionally in the form of purchase of hacienda land by peasant communities (Matos Mar 1964; C.I.D.A. 1966: 122-123). However, it will become more frequent in Peru where agrarian reform is motivating hacienda owners to divest themselves of their land.

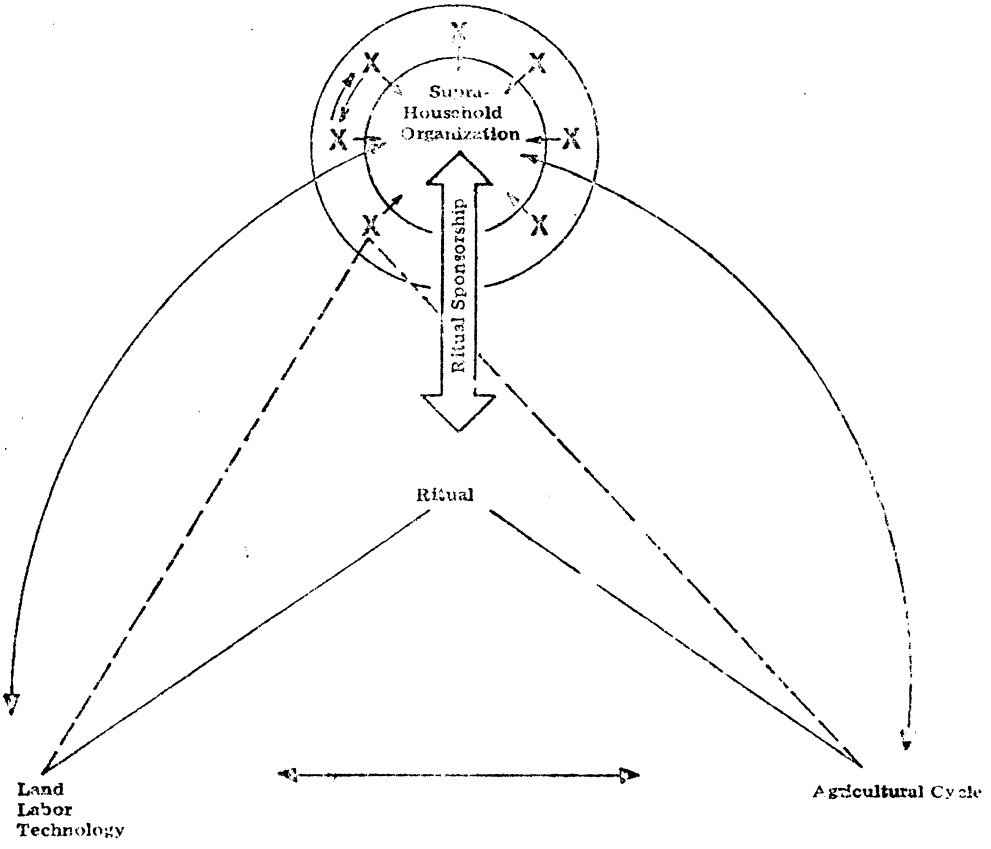
Use of legal channels is a less common means through which the supra-household may elect to defend or maintain access to land. There are two documented cases from the Peruvian coast with illustrate the process. The first (Faron 1960) involves a group of peasants who decided to petition for legal recognition as an "indigenous community". The land they had traditionally farmed had become more valuable as a result of the spread of cotton cultivation. As a result, some of the land had been usurped by haciendas. Formal recognition, they believed, enhanced the possibility of regaining the land,

since under Peruvian law recognition guaranteed legal status to the peasant's claims based on boundary surveys and documents bearing on the relation between the original ayllo de indigenas and adjacent haciendas (Faron 1960: 443). In another instance (Keatinge 1973), the dormant political organization of a peasant community revitalized itself in line with provisions of the agrarian reform law of 1969. The goal was to retain access to land that had been threatened by clauses in the law. While the community had been recognized as an indigenous community under the provisions of an earlier law, it was reorganized under a new law regulating peasant communities (cominidad campesina). The tendency to privitization of land prior to the agrarian reform was halted and community jurisdiction over the free disposal of land was re-established and accepted by those already in possession of land and those who desired to obtain usufruct to a plot.

We can summarize the preceding argument to this point as follows. The Andean peasant economy can be understood by reference to two spheres of production: the household and the supra-household. The relationships between the two are illustrated in the following diagram.

Figure 2 about here

The supra-household arises as a response to constraints on household production requiring collective processes. The principles through which the supra-household acts include redistribution, equality of opportunity, and renewal of resources. Through the supra-household, land, water, pasture, and collecting rights are allocated to individual households, agricultural tasks and labor utilization are scheduled and coordinated, essential technological inputs into household production are created and maintained, and



individual households are defended by collective action against threats of encroasion by outside forces. In return each household is expected to supply labor when called upon, serve in the cargo system, provide support for local officials, report for battles over land disputes, and contribute in cash or kind when asked. Where size and scale of operations becomes a constraint, the supra-household will organize the collectivity to meet administrative requirements. The relationship between the household and the supra-household is thus based on a set of mutual reciprocal expectations (Malengeau 1972: 6; Mayer 1974: 55). These mutual expectations are at the core of the Andean peasant economy. Historical studies of Andean communities (Celestino 1972; Degregori and Golte 1973) reveal that when significant gaps exist between expectation and reality, then stress and conflict enter into community life. These gaps came about by the same processes, the impingement of outside forces on the peasant community and population growth, which have created tension and conflict throughout agrarian societies (Wolf 1969).

## THE SUPRA-HOUSEHOLD AND THE COMMUNITY

We have seen how the need for land or labor will lead to social relations between households that are relatively flexible, ad hoc, and impermanent. The characteristics of these relationships flows from the ecological constraints on the short term productive decisions of peasant households.

Peasant households are often found grouped together in some more inclusive kind of social unit. This unit is usually referred to as the community, although in the Central Andes it may have a number of empirical referents depending on local, political, administrative, and census practices in each country.

The social matrix of the Andean community, as in Latin America in general, is a subject of some controversy. In the writings of the "Indianista" writers, the community development literature, and the community study school of sociology and anthropology, it is seen as a cohesive, "natural" social unit, with a set of characteristics leading to its perpetuation in the face of threats from the larger society. It represents a storehouse of energy that can be tapped for development and fosters social relationships that are cooperative, helpful, generous, warm, and "boy scout like" (Adams 1962: 409-410). This view of the community has been attacked by Adams (1962) who suggested a provocative direction to follow in explaining the basis of the social relations of the community:

> In short... for the purposes of development, the aggregate of peoples that has been called a "community" must be seen as an ecological reality. No social relational autonomy can be assumed for such populations. The cultural continuity that Redfield described can be altered rapidly and drastically by changes in the environment. Where change seems to be slow in one of these populations, it very likely is due to the fact that the environment is changing slowly (Adams 1962: 427).

Besides the cooperative character of its social relations, other features have been associated with the Andean community. It has been described as endogamous, possessing a corporate land holding structure, in collective definition and defense of its borders, and having a specific juridical status set out in national legislation.

Unfortunaltely Adams' suggestion, to understand the "comunity" in relation to its ecological setting, has not been followed in later research. Instead, we find recurring attempts to fit Andean communities into one of the various typologies of peasant communities ranging from the open-closed continum of Wolf (1957) to the debate over whether the social relations of Andean communities are cooperative or conflict ridden (Whyte 1975). The efforts of typologizing the Andean community are a reflection of a larger "felt need" in anthropology to arrive at some general set of traits which characterize all peasant communities, a view which stems from the original Redfield-Lewis debate, and which becomes necessary in order to use the micro-macrocosm analogy in the community study school of anthropology and sociology.

One of the best illustrations of the difficulties of fitting Andean communities into typologies is the open and closed continum of Wolf (1957). Based largely on work in Mesoamerica, an area with many ecological and cultural similarities to the Andes, Wolf constructed a continum containing two polar opposites, the closed and open comunity. Closed communities have corporate land holding structures, retain jurisdiction over free disposal of land, and are strongly opposed to outside contact. Open communities, on the other hand, free land to be bought and sold as commodities and are in continuous interaction with the larger society.

Keatinge (1973) has attacked the open-closed continum using data from a Peruvian coastal community. Prior to the 1969 agrarian reform, the community was quite "open" in terms of the prevalence of private ownership of land rented to tenants, a varied occupational structure, and obvious social interaction with a regional urban center.

When the 1969 agragian reform was decreed, it contained clauses threatening land owners with expropritation and the distribution of their land to tenants. The response was to collectively reorganize into a corporate land holding structure, which had existed at one time in the community, in order to protect land rights through a separate set of laws regulating "recognized" peasant communities.

Keatinge's point, that there is no contradiction in a peasant community possessing both a corporate land holding structure and "open" social interaction, is consistent with what has been said up until now about the Andean supra-household sphere of production. In essence, corporateness, custodial labor recruitment, community endogamy or exogamy, political "recognition", etc., are tools which the supra-household uses to optimize the short term survival and security of the individual households. A corporate structure, under contemporary Peruvian legislation, is a means of consolidating power to retain control over land under external threat. It can also be effective in maintaining control within the community over sectorially fallowed land that would degenerate if rules regarding its exploitation were not followed.

Given the nature of the activities of the supra-household presented in the preceding section, is it possible to generalize about its social matrix? It seems clear that patterns do emerge, but they should be understood as tendencies, subject to the nature of production and the local ecological setting. Here it is appropriate to employ the language provided by Wolf (1966) in his analysis of peasant coalitions. First, the supra-household, which draws upon a collectivity of individual households, tends to by polyadic,

and, further, multistranded in that there are a number of overlapping interests, territorial, political, ritual, etc., which bind the households together. Wolf makes a distinction based on the equality---horizontal---or differences---vertical---in the life chances of individuals making up the coalition. Foster has modified Wolf's distinction to focus on "differences in power or authority within the context of the functioning of the group" (1975: 335), which highlights the structure of the social relations of a coalition. The delegation of authority to local officials who act in behalf of the supra-household would thus render it a vertical coalition, following Foster. Lastly, it is a long term rather than a short term coalition.

Wolf's analysis of peasant coalitions is based on their response to pressures emanating from within the peasantry itself and emerging from out of the larger society. The latter set of pressures has been particularly important, according to Wolf, in creating peasant coalitions similar to that described in this paper. Mesoamerican and Javanese closed corporate communities are thus "children of conquest" while the mir emerged in the internal colonialism of early 19th century Russia. A similar theme can be found in the work of Smith (1976) and Forman and Riegelhaupt (1970) who trace changes in production, and implicitly, its social matrix, to the evolution and structure of marketing systems.

Extra-societal forces have been instrumental in the form peasant coalitions in the Central Andes take today as Fernando Fuenzalida (1967-68) has shown. However, the argument of this paper is that to fully understand these forms and their variations it is essential to look for roots in the local production processes operating within local

ecological settings. Such a perspective should reveal the presence or absence of constraints on production at the household level which require collective responses along with the long term strategy selected by the supra-household in exploiting its local ecological setting.

Brush (1974) has isolated three "vertical" long term production strategies of Andean communities upon which we can suggest possible socio-political correlates, following the mode of analysis in this paper. In the compact form, where the long term strategy is based on obtaining a mix of products from among the locally relevant ecological zones within a community, we would expect a tendency toward "corporateness", manifested by definition and defense of borders, community exogamy, restriction of membership, the seeking of protective juridical status, and the like. Internally, we would expect a flexible social organization based on ad hoc dyadic relationships used to obtain access to land, labor, and other resources. In the archipelago pattern, control over dispersed ecological zones is maintained either at the household or the supra-household level. In the latter case, exogamy and preferential marriage rules would assist in cementing the relations with a distant colony. One demographic practice that might be explored in this regard is the fissioning of Andean communities and the creation of annexes which are often given juridico-political status under that term. It may well be the case that this process is the outcome of the archipelago strategy of the supra-household.

In the extended pattern, communities are found in the larger valleys in a dispersed settlement pattern. Each community tends to specialize in one of the products

of a local ecological zone and obtain products of other zones through exchange. Social relations in these communities will tend to reflect the ecological constraints of the zone which is exploited.

In all cases, the resulting complex set of adaptations will be closely tailored to the characteristics of the ecological zones exploited by the collectivity. Sectorially fallowed high altitude land will require collective control and individual usufruct while irrigated land may be associated with private ownership. A community with a "compact" long term strategy may thus display two quite distinct exploitation patterns, while the "extended" strategy may result in a single pattern closely tailored to the specific zone which is being exploited. In any event, social relations at the community level will reflect the ecological constraints of production rather than exist as a given, as has been assumed for peasant communities in Latin America (Adams 1962: 409-10).

## CONCLUSION

In this paper a sphere of production in the peasant economy of the Central Andes has been described which is a counterpart to the household and arises out of the constraints on its production capabilities. It is instrumental in the construction and maintenance of technological inputs into the household production calculus, the collective defense of the land base against encroasion, the processing of information concerning the agricultural cycle, and the setting and enforcing of ecologically sound rules regulating resource use. The basic principles which inform the supra-household production

process are redistribution, equality of opportunity, and renewal of resources while the relation between it and the set of individual households is based on reciprocal expectations.

The existence of the supra-household sphere of production calls into question those analyses of peasant economics that are based entirely upon the household as the unit of production (Chayanov 1966; Franklin 1969; Lipton 1968; Schultz 1964). Close analysis of the literature on peasant societies reveals, in fact, a number of processed carried out at the level of the collectivity of households that have impact on the production decisions of individual households. The work of Bailey and his colleagues (1973) on the collective responses of largely European peasant communities to the adoption of innovations by individuals is a case in point. It seems logical to look further at other peasant contexts to begin the work of middle level theoretical generalizations. In some cases, such as the kibbutz and moshav seetlements in Israel and the Hutterite communities of the United States (Bennett 1967) the parallels are obvious; in others such as the "final phase" of the European peasantry (Franklin 1969) where occupational diversification, class divisions, and demographic flux have obscured the structural underpinnings of the peasant economy, the task will be more difficult.

The insights that can be had from such a perspective are numerous. For example, some writers (Rogers 1969: 122) have suggested that peasants have a "limited time perspective" and are not future oriented. The argument in this paper is the converse; that there is a long term production process at work in the Andean peasant economy, but that it lies within a different production sphere than the household and thus would be difficult to observe were one to concentrate on the household as unit of production.

Lastly, focusing on the supra-household and its social relations of production rather than the illusive "community" helps to adequately account for form and variation in the social matrix of the Andean countryside. There is a tendency, in this regard, toward coalitions that are polyadic, multi-stranded, vertical, and long term. However, in each empirical case, the major determining variables are the set of constraints on the production process of the individual household which require collective action and long term exploitative strategy in the supra-household sphere of production.

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# PROPOSICION PARA UN ESTUDIO COMPARATIVO DE FORMAS ASOCIATIVAS DE PRODUCCION EN EL CAMPESINADO DE CUATRO PAISES LATINOAMERICANOS

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Bogotá, Colombia
Noviembre, 1976

# PROPOSICION PARA UN ESTUDIO COMPARATIVO DE FORMAS ASOCIATIVAS DE PRODUCCION EN EL CAMPESINADO DE CUATRO PAISES LATINOAMERICANOS

David Guillet*

## INTRODUCCION

Se propone en este estudio investigar la existencia de formas asociativas de producción en el campesinado de cuatro países Latinoamericanos. Por formas asociativas se quiere decir la utilización de factores de producción en unidades agrícolas familiares, dentro de la totalidad de hogares en un asentamiento campesino, y dentro de coaliciones regionales de hogares, para alcanzar metas de producción de largo y corto plazo.

Se supone normalmente en los estudios de economía y desarrollo económico, que la economía campesina es esencialmente una economía familiar (Schultz 1964; Chayanov 1966; Millar 1970; Franklin 1969; Lipton 1968). Se puede encontrar el mismo supuesto en la literatura antropológica en la forma de atribuír a los campesinos un conjunto de rasgos culturales, que se manifiestan a través de su comportamiento y que les obstaculizan en la ejecución de acciones tendientes a lograr su bienestar propio (Foster 1965). Este prejuicio se extiende, en general, al intentar afirmar que una teoría de economía trans-cultural debe fundamentarse en el análisis de decisiones de asignación individuales con poca atención hacia las decisiones colectivas. Un analista de la literatura más reciente de la teoría de decisiones ha sugerido, sin embargo, que tal concentración sobre el individuo en detrimento de la colectividad podría ser el resultado etnocéntrico del impacto de las democracias liberales de Occidente (Fjellman 1976:90).

Una interpretación superficial de los estudios etnográficos de sociedades campesinas revela casos numerosos de actividades realizadas al nivel de la colectividad orientados a satisfacer metas de producción de largo y corto plazo. La utilización de mano de obra asociativa es tal vez lo más común, que ocurre con frecuencia en sociedades campesinas a lo largo del mundo (Georgescu-Roegen 1969). Si no se circunscribe la atención solamente a los factores de la producción tradicionales de tierra, mano de obra, y tecnología, y se incluyen otros recursos no usualmente incluídos dentro del cálculo de producción, entonces una gran cantidad de estudios sobre cultura y comportamiento que son normalmente relegados a categorías de religión, política, y sociedad, se tornan relevantes. Por ejemplo, Kent Flannery (1972) ha sugerido que el comportamiento ritual tiende a determinar el tiempo para actividades y a un nivel más profundo, a procesar información sobre el ciclo agrícola. En el mismo sentido, la organización colectiva de los campesinos, como un recurso de poder, es uno de los pocos vehículos a través

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de los cuales los campesinos pueden mantener, defender y expandir sus recursos económicos notablemente la tierra (ver Quijano Obregon 1972 a y b por una reseña de los estudios de movimientos campesinos Latinoamericanos).

Una reseña de los estudios etnoaráficos del campesinado de Perú, Ecuador, Colombia y El Salvador, los cuatro países que han sido seleccionados por esta investigación, revela un rango de formas asociativas que involucran desde la utilización de la mano de obra (el ayni y la faena en los Andes Centrales; la minga en los Andes norteños) hasta los movimientos campesinos. Esta investigación tratará de estudiar a fondo estas y otras formas asociativas de producción y las condiciones bajo las cuales ellas son seleccionadas entre un conjunto de alternativas disponibles al campesino.

Una línea de razonamiento es que existe una continuidad con formas de organización que existían antes del Contacto, o surgieron más tarde, durante los períodos Colonial y Republicano. Se propone investigar el contexto histórico de formas asociativas contemporáneas. Por ejemplo, para entender el contexto cultural de comunidades campesinas de los Andes Centrales y las tierras bajas de los Andes Norteños y de la América Central, es necesario buscar rasgos en el ayllu y el palenque.

No se quiere sugerir, en modo alguno, que la sobrevivencia es suficiente para explicar la existencia de formas asociativas dentro del campesinado Latinoamericano. Tal argumento reduce los campesinos a seres conservadores, quienes según el modelo de Skinner, actúan en el presente basados en las experiencias pasadas. Más bien, se ve a los campesinos como actores racionales, quienes diseñan estrategias con la finalidad de producir resultados en una situación dada. Estas formas de organización son constantemente analizadas en cuanto a sus costos y beneficios y son descartadas si se hacen ineficaces. Por ejemplo, el trabajo de Erasmus (1956) ha mostrado el papel que han tenido las fuerzas del mercado en reducir la eficiencia de ciertos tipos de mano de obra recíproca dentro del campesinado Latinoamericano. Es de esperar que los mismos argumentos actúen en la evaluación campesina de otras formas de producción asociativa. Lo que aquí se sugiere, en relación al argumento de la sobrevivencia es que, si las prácticas asociativas continúan existiendo o emergen, ello se debe a que constituyen un empleo eficiente de los factores de producción, dadas las restricciones encontradas localmente. Su existencia, comprendida y analizada correctamente, entonces podría ser una base para estrategias de desarrollo que involucren la utilización asociativa de factores de la producción. Que esto ha ocurrido entre las culturas "primitivas" y el campesinado se prueba por el análisis de Finney (1973) sobre la adaptación de el sistema de "big man" a las exigencias de producción para el mercado en New Guinea y la documentación de Celestino (1972: 84-85) sobre la transformación en los Andes Centrales, del empleo de mano de obra recíproca tradicional, llamada "huallpa", en sociedades de trabajo entre cuyos miembros se proveen ayuda mutua, e ingresos, mediante contrataciones mutuas, en el período de transición que media entre la producción para la subsistencia y para el mercado.

Un segundo argumento, que las formas asociativas y en general todas las formas de organización de la producción son esfuerzos calculados para adaptarse a un conjunto de restricciones ecológicas, será también seguido en esta investigación y desarrollado más adelante.

## A. Lugares para Realizar la Investigación

Los países que han sido seleccionados para este estudio son Perú, Ecuador, Colombia y El Salvador. Este conjunto de países provee un grupo de selección de zonas macro-ecológicas. Las tierras altas de Perú, Colombia y Ecuador son interesantes teóricamente porque contienen una topografía montañosa situada en las áreas tropicales. El resultado es un conjunto de zonas de medio ambiente basados en la altura y con un conjunto de formas de organización de la producción cuidadosamente adaptadas a las características de cada zona. Colombia, Ecuador y una pequeña parte de Perú están considerados por geógrafos como los Andes Norteños. Están caracterizados por una época de lluvia doble, lo cual sostiene un bosque mojado de lluvia ("wet rain forest") en áreas de altura entre diez mil pies y el nivel de caída de nieve. Tales áreas no son favorables para el pastoreo de llamas y alpacas, explicada su inexistencia por población que habitaba esta zona. Perú y el norte de Bolivia tienen una época de lluvia y de sequía contrastante que resulta en una altura de grama de "ichu" ideal para el pastoreo. El campesinado contemporáneo de estas regiones tiene su origen en formas complejas sociopolíticas del estado y de "chiefdom" que mantenían una población de pre-Contacto relativamente densa. Los campesinos contemporáneos, particularmente en los Andes Centrales, exhiben un número considerablemente grande de rasgos culturales indígenas.

En las áreas húmedas bajas de Ecuador y Colombia una población menos densa y compleja disminuyó rápidamente después de la conquista, para ser reemplazada posteriormente por esclavos introducidos generalmente de Africa. En estas áreas se encuentra una población con una matriz cultural muy compleja, que mezcla rasgos de origen africano, indígena y español.

El Salvador está situado en latitudes templadas y tiene una topografía algo montañosa, de origen volcánico. Es uno de los países más pequeños pero más densamente poblados en América Latina hoy. La población indígena se mestizó rápidamente y al llegar el Siglo XVIII la mayoría de los Indios habló el español. El país hoy es casi todo mestizo aunque hay unos remanentes de rasgos indígenas en las áreas remotas.

Cada uno de estos países se encuentra en estos momentos efectuando o por iniciar procesos de reforma agraria, en los cuales la agricultura asociativa es una de sus varias formas, constituye la base para una estrategia real o potencial. El IICA-CIRA está involucrado en aspectos de capacitación, investigación y mejoramiento en estos esfuerzos. Los resultados de este estudio tendrán, entonces, una aplicación inmediata en el trabajo del IICA.

Existen contactos con funcionarios gubernamentales, el sector privado y con profesores universitarios en cada uno de estos países dentro de la infraestructura del IICA y sus representantes. Trabajando en las oficinas del IICA en la ciudad capital de cada país, se utilizarán las bibliotecas públicas y privadas, se consultará con especialistas y se utilizarán las instalaciones del IICA para visitar lugares de investigación en el campo.

## B. Técnica de Reunir Datos

Los datos serán obtenidos de sitios varios: los datos cualitativos serán buscados en la literatura etnohistórica y etnográfica, a través de consultas con especialistas y en las propias comunidades campesinas. No se obtendrán datos cuantitativos como un fin específico de este estudio, excepto en la medida en que provean una base para los patrones referentes a la demografía ecológica, distribución de la tierra y recursos. Para esto, los estudios de países hecho por el CIDA, los censos nacionales y la literatura geográfica serán sumamente valiosos.

Los procedimientos que se seguirán serán esencialmente los mismos para cada país. Algunas de las etapas serán las siguientes:

La primera consistirá en recorrer la literatura etnohistórica para determinar la existencia, desaparición, emergencia y cambio de formas asociativas de producción durante los períodos desde antes de la Conquista al presente. No se espera que, dadas las restricciones de tiempo, se trabajará con materiales de archivo originales. Más bien, se utilizarán los recursos secundarios y la consulta con especialistas.

La próxima etapa es recoger información sobre la organización de la producción con atención especial a las formas asociativas. Las preguntas básicas que se intentan responder con los datos son los siguientes: (1) cuales son las restricciones ecológicas de los factores de producción, notablemente tierra y mano de obra, (2) cuales son las formas de organización alternativas para alcanzar metas de producción, dadas las restricciones ecológicas, (3) bajo qué condiciones, son seleccionadas las formas asociativas para la utilización de los factores de la producción, (4) cuales son los costos y los beneficios involucrados en las diversas formas asociativas, y (5) cuales son las características sociológicas de las coaliciones que están formadas.

Serán incluídos dentro de la recolección de datos ecológicos un número de variables como las siguientes: las características y distribución de recursos; los aspectos relevantes del ambiente; las necesidades de mano de obra en el tiempo y espacio (de corto y largo plazo; periódico y permanente); y el universo de grupos humanos que están en interacción. Dentro de la última categoría será de interés particular determinar la presencia y consecuencias de grupos vecinos de campesinos, terratenientes e instituciones gubernamentales.

En esta etapa de la recolección de los datos se espera utilizar un número de recursos. Un recurso primario de información estará dado por los individuos que han tenido contacto directo con el campesinado en micro-regiones claves de cada país. Se tiene en mente personal del IICA, funcionarios públicos y profesores universitarios como economistas, sociólogos rurales, agronomistas y especialmente antropólogos que hayan hecho estudios de campo.

No se espera hacer trabajos de campo utilizando técnicas antropológicas tradicionales de participación-observación. Aunque provea un conocimiento especial a la cultura y comportamiento, se requiere mucho tiempo y una residencia estable en el sitio de investigación. Es muy posible que se permanecerá en una comunidad por períodos de tiempo cortos, posiblemente de dos a tres semanas para observar las actividades de producción. Se piensa viajar, dentro de cada país, para llegar a conocer las regiones y su variación ecológica.

Una situación semejante con respecto a tiempo y distancia fue encontrada por tres antropólogos quienes fueron estudiando las diferencias regionales en los efectos de la reforma agraria en Bolivia. Decidieron entrevistar a campesinos en grupos pequeños de cinco a diez y encontraron que esta fue una técnica eficiente para recoger datos con verificaciones como parte de la técnica (ver Heath, Erasmus, Buechler 1969). Si el tiempo no permite estancias largas en un sitio, entonces serán utilizadas entrevistas de grupo.

## C. Análisis de Datos

En el análisis de los datos se tratará de presentar los resultados y las generalizaciones a nivel de región. No se espera utilizar como unidad de análisis la comunidad como en muchas investigaciones antropológicas. Un conjunto de cuatro estudios sobre comunidades campesinas en Ecuador, Perú, Colombia y El Salvador sería de poco valor para el planificador que necesita diseñar modelos de organización asociativa para la agricultura de cada uno de estos países.

Inicialmente se distinguirán un conjunto de macro-regiones incluyendo los siguientes: la tierra alta de los Andes Centrales, la tierra alta de los Andes Norteños, las tierras bajas de la costa Atlántica y la tierra alta de origen volcánico representada en el interior de El Salvador. Esta selección no pretende ser comprensiva si no que más bien desea incluír las regiones ecológicas más importantes en América Central y Sur. Donde hay micro-regiones significativas, como las de los valles del Cauca y Magdalena en Colombia y la sierra central y sur del Perú, serán investigadas por sus características propias. El fin primordial de utilizar la región como unidad es facilitar la construcción de un conjunto de modelos descriptivos de la organización de producción a este nivel.

Un supuesto fundamental de la metodología que se utilizará en este estudio es que el proceso de producción involucra un sitio (locus) o conjunto de sitios (loci) donde las decisiones de asignación de los factores de la producción están hechas. La mayor parte de la literatura sobre el campesinado Latinoamericano sugiere que el hogar es básico en este sentido. Se aceptará este hallazgo como supuesto del trabajo, pero existirá disposición para identificar otros loci de producción que sugieren los datos. Por ejemplo, hay informes en la literatura etnográfica sobre tierra que continuamente es explotada en común en algunas regiones de El Salvador (Rubio Orbe 1975: 695). Este tipo de dato será investigado, si es posible, durante el curso de la investigación. Normalmente, se espera que el jefe del hogar (sea hombre o mujer) controla un conjunto de factores de producción, siendo la tierra y mano de obra los más importantes. El jefe no necesariamente es "dueño" de la tierra pero tendrá acceso a ella bajo un número de tipos de tenencia posibles. Durante el curso del ciclo agrícola, el hace decisiones orientados a fines de producción usualmente de corto, pero muy posiblemente de largo plazo.

Como ha sido indicado en la introducción, no se quiere adoptar el prejuicio en la literatura que ve a la economía campesina como solamente una economía del hogar. En este aspecto, al analizar los datos se seguirá un procedimiento que el autor ha usado en otro trabajo referente a la organización de producción en los Andes Centrales (Guillet 1976).

La primera etapa es revelar las restricciones para el uso de factores de producción al nivel del hogar, que están afuera del dominio. Descubre las siguientes:

1. Ciertos insumos tecnológicos, necesitan para la producción al nivel del hogar, de una gran cantidad de mano de obra además de su coordinación y muchas veces especialización en su construcción y mantenimiento.

2. La proporción de factores de la producción tiene que ser ajustada para satisfacer necesidades de corto plazo para el hogar campesino.

3. Demandas conflictivas de tiempo y mano de obra deben que ser programadas y coordinadas dentro de los hogares campesinos.

4. La tierra y ciertos factores tecnológicos como los terrazos, sistemas de riego y otras obras de tierra son recursos que tienen que ser renovados sino para que no degeneren y amenacen la base de recursos del hogar campesino individual.

5. Tierra en los Andes Centrales ha sido el objeto de presiones en la sociedad para evitar el dominio local. Para mantener y expandir la base de tierra del hogar campesino, acciones de defensa y agresión por parte de la masa campesina han sido necesarias.

Estas restricciones son esencialmente ecológicas en origen y surgen del análisis de datos regionales.

La siguiente etapa es situar y analizar las formas de producción. El autor ha identificado una variedad de formas asociativas incluyendo intra-hogar, supra-hogar y coaliciones regionales en el uso de factores de la producción. Los resultados en el caso de los Andes Centrales se presentan a continuación:

Formas de organización de la Producción en los Andes Centrales

| Factores de Producción | Hogar | Intra-Hogar | Supra-Hogar | Coalición |
|---|---|---|---|---|
| Tierra | Explotación Directa | En compañía, a medias, aparcería. | | |
| Mano de Obra | Familiar | "ayni" | "Faena" | |
| Información | | | Sistema de ritos, cargos | |
| Poder ("Político") | | | Movimiento Campesino | |

En la última etapa del análisis, se tratarán de situar las formas de organización de la producción en un contexto histórico. Esto quiere decir localizarlas en el tiempo y analizarlas desde un punto de vista de costo/beneficio, como ha sido descrito en la introducción.

## D. Programación de Actividades

1 de Nov. - 31 de Dic. Durante este período de dos meses los esfuerzos se concentrarán en El Salvador. Se espera estar aproximadamente seis semanas en el país y el resto del tiempo preparando un informe preliminar de los datos.

2 de Enero - 31 de Marzo. Durante este período de tres meses, la base de operaciones serán las oficinas del IICA en Bogotá utilizando la biblioteca y haciendo viajes periódicos al campo. Se participará en dos seminarios durante este período: uno sobre el liderazgo en empresas asociativas y otro sobre sistemas de producción en la agricultura tradicional en Colombia, Febrero 20-22. Se redactará un informe preliminar sobre los datos.

1 de Abril - 31 de Mayo. Este período será dedicado a Ecuador con un informe.

1 de Junio - 30 de Junio. Solo un mes está programado para el Perú. El proponente ha trabajo un largo tiempo en el pasado aquí y no se prevee la necesidad de gastar mucho tiempo en recoger los datos adicionales.

1 de Julio - 31 de Julio. Durante este mes, un informe final será escrito.

Durante mi estancia en IICA en 1977-1978, se tratarán de integrar los resultados de mis investigaciones con su planeamiento en el área de agricultura asociativa, particularmente en la Línea VI, Cambios Estructurales y Organización Campesina.

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