MARKET NETWORKS AND MARKETING BEHAVIOUR:  
THE ORGANIZATION OF TRADE IN SOUTHERN VERACRUZ, MEXICO

by

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This thesis arises out of a concern for the continuing disparity in the levels of development between the Western World, or developed countries and the Third World or less developed countries. Among the most disadvantaged are the rural populations who constitute a high proportion of the population of Third World countries. In spite of the fact that the peasant sector is being increasingly drawn into the national economy through the market system, there appears to be no concomitant rise in the standard of living and rural poverty persists in much of the Third World.

The extent to which peasant farmers gain or lose through market participation depends largely on the form and structure of the market system, that is on the form taken by the network of trade flows and exchange centres and on the nature of relations between buyers and sellers. The primary objective of this thesis is to describe and analyze the historical development of the market system for the distribution of foodstaples produced by the peasant sector in southern Veracruz, Mexico since the turn of the century.

It is argued that a dendritic-type market system, in which vertical flows predominate over horizontal exchange, developed in response to the demand for foodstaples from the urban industrial centres of Mexico. The lack of a well developed transportation network and the general inaccessibility of the region allowed a
small group of merchants to dominate and control trade during the early half of the century. Recent improvements in transportation and communication have facilitated the penetration of the area by outside buyers, causing a change in the spatial and structural organization of trade. The spatial distribution of the rural population, the system of production and changes in land use are also factors that have been instrumental in the particular formation of the market system.

Fieldwork for this thesis was conducted during 1975 in six municipalities in southern Veracruz using inductive methods. Most of the data were derived from interviews with peasant farmers and traders, or middlemen, based within the field area, and substantiated further through participant observation, interviews with various public officials, politicians and prominent members of the community, and through bibliographic research.

In evaluating the impact of changes in the market system on the local economy, it would appear that the marketing opportunities for peasant producers have improved only marginally. Peasants continue to sell their produce to middlemen at prices below that of the guaranteed minimum price set by the government. Truckers entering the region from major urban centres are reluctant to engage in numerous transactions with small scale producers, and prefer to deal with local middlemen.
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CHAPTER ONE

INTRODUCTION

The basic issue behind the concept of the Third World still remains: a moral concern with unequal development within the world system, which leaves most of the world's people with minimal provision for their basic needs - inadequate food, shelter, health, work, and education - while a small proportion of the world's population have much more than they need.

Geographers and other social scientists have long been concerned with the inequities in the spatial distribution of income, the general standard of living and rate of development on a global and regional scale. Of particular concern is the plight of the rural population who constitute the majority in most Third World countries. The lack of development and continuing low standard of living among the peasant sector often stands in sharp contrast to the growth in the urban - industrial sector of the nation. This thesis examines the role of the rural market system in Veracruz, Mexico in articulating the peasant sector with the broader national economy, and the manner in which the organization of trade constrains the development of the former.

Theories of development

A variety of theories have been proposed by social scientists
to explain the unequal level of development between and within nations, and to offer solutions to the problem. Until the 1950's, development was considered to be a unilinear process, and individual economies were placed at some point on a development continuum and classified according to the 'stage' of progress that had been reached. The apparent dichotomy between the 'modern', developed, industrial sector and the 'traditional', undeveloped rural sector that characterises the majority of Third World countries was thought to result from the inherent 'dualism', or "the co-existence within one national economy of two economic systems different in behaviour, organization and performance". It was believed that the transformation of the 'traditional' or 'backward' sector could be achieved through the diffusion of capital, resources and technological information from the 'modern' sector, and by the strengthening of communications and of commercial and institutional linkages between the sectors. Agrarian development policies for the Third World emphasized the provision of the necessary inputs to raise the level of productivity. Among the most critical factors were listed: "tenure security, availability of new yield-increasing inputs, access to markets, farmer's know-how and awareness of opportunities." Furthermore, the establishment of transportation and communication linkages between the modern and traditional sectors, or between rural and urban areas, were held to be vital in stimulating rural development: "...improved and extended transport facilities are
necessary to the widening and fusion of market areas already settled, and in stimulating further production for internal or external trade in a country and so encouraging the growth of a modern exchange economy".  

These earlier notions of dualism have been gradually replaced by the holistic theory that argues that we are dealing with a single, world economic system, the origins of which can be traced back to early European mercantilism, in which individual economies function as interdependent elements. (Wallerstein, 1974). As stated by McGee (1978): "The question of relationship between Western World and Third World can be viewed in broad historical terms as a process of incorporation of Third World countries into an international world system".  

The world economic system can be depicted in spatial terms as consisting of a well developed 'core' of capitalist, industrialized nations, and a less developed 'periphery' of poor, non-industrial countries. Historically, the growth and expansion of the capitalist core has occurred through its dominant relationship with the periphery in the form of colonialism and imperialism, through which it was able to obtain the resources with which to develop an industrial base. The centripetal transfer of wealth and resources has inhibited the independent development of peripheral countries, and it is argued, has resulted in the 'underdevelopment' of their economies.
Within Third World countries there is a marked disparity in the level of development between the modern and traditional sectors and in the distribution of income within society. However, this disparity in development does not stem from the lack of integration of the 'traditional' sector: Recent work by anthropologists on peasant societies has dispelled the myth that peasants occupy a marginal position on the fringes of the national economy. On the contrary, the growth and expansion of the industrial sector has resulted in the penetration and incorporation of rural areas through the expansion of the market network: "... the most important driving force (of incorporation) is the market complex seeking out even marginal sellers of raw materials and cheap labour, as well as buyers for factory made goods and for services, ... it implies direct attachment of local production, exchange and consumption to the national market system".  

The role of the market system in rural development in the Third World

Few peasants in the modern world are untouched by a market, by a pricing mechanism that determines the value of their products, labor, land and capital. But the way in which the market integrates them varies such that some peasants have gained (in real per capita income) through market integration, while others have lost .....most differences among modern peasant economies can be explained by variation in the type of market that engages peasants rather than the degree to which peasants engage in a market.
The term 'peasant economy' refers here to that sector of the population that is only partially integrated by the market. The peasant mode of production is distinguished from other modes of production primarily by the use of family labour in the production process. C. A. Smith has developed a typology of rural marketing system that includes four general models, which she claims can describe and explain aspects of peasant marketing systems throughout the modern world. (Smith 1977). The four major types of market systems described are referred to as 'interlocking', 'dendritic', 'primate' and 'top heavy'. Detailed descriptions of each of the four types can be found in Smith's work and will not be included here. However, to illustrate the manner in which the spatial organization of trade affects the development of the peasant sector, one of the central tenets of this thesis, it is useful to compare two of the four types of marketing systems, the 'interlocking' and the 'dendritic', as the former tends to provide peasants with an opportunity to advance materially through market participation, while the latter system tends to result in the drain of resources from the peasant sector, resulting in underdevelopment.

An interlocking system of market centres is found in the central highlands of Guatemala. Within this system "each market centre is linked to several higher level centres as well as to several lower level centres". (Figure la). The dual primary
(a) Interlocking

(b) Dendritic

FIGURE 1 - Rural Market Systems (a) Interlocking type (b) Dendritic type. (C.A. Smith, 1977, Figure 8-3, p.126)
central places of the region are serviced by six secondary urban centres and by an interlocking system of nineteen large rural market places which bulk rural goods. Trading tends to be competitive as both merchants and producers can choose among several market centres at any level for both buying and selling. No one party is in a position to determine the terms of trade or the market price. The free movement of goods throughout the rural area allows rural producers to specialize in one area of production, and the level of economic opportunity is high. "Today, land, labor and capital are as competitively priced by the market in the central highlands as are market commodities, and rural access to markets for these factors of production is relatively unimpeded".  

In contrast, the market network in the northwestern periphery of Guatemala is dendritic: market places are strung out along the roads which penetrate the area, becoming progressively smaller with distance from the external markets in central Guatemala which serve the northwest. The marketing system resembles those of southern Colombia, southwestern U.S.A. and Puno, Peru, described by Ortiz, Kelly and Appleby respectively. In each case, the network of exchange centres forms a branching pattern in which "all lower level centres are tied to a single higher level centre in a chain that is entirely vertical without horizontal links".  

(Figure 1b).
The development of a dendritic system usually results from the centrifugal expansion of central commercial interests towards the 'periphery' as 'core' area merchants seek to purchase rural products for a central market, or to develop new market outlets for urban manufactured goods. Due to reduced economies of scale, transportation costs tend to increase towards the periphery so that peasants not only receive the lowest price for their products, but also pay the highest price for 'imported' goods. Because the market is organized for the convenience of external merchants, the structure of the market system results in adverse terms of trade for peasants located on the periphery.

In addition the dendritic structure tends to foster conditions of monopoly or monopsony. As buyers or sellers in lower order centres cannot choose between two or more markets, their ability to influence the terms of trade is limited: "If there is only one buyer in existence but many sellers, then the sellers can only choose to sell or not to sell". Regional merchants in secondary centres, often intermediaries for larger trading companies in primary urban centres, may have a monopoly over the distribution of imports, and a monopsony in the purchasing of local products because of the structure of the market system. The power of these regional middlemen is often enhanced by the variety of economic functions they perform; a single merchant may be the purchaser of local products, the vendor of consumption goods, the source of rural
credit, and may also control the means of local transportation. As a result, "any surpluses developed by the little economy tend to be transferred to the middleman rather than remain available for reinvestment". A dendritic market system may thus lead to the transfer of wealth from the periphery towards the centre, draining the hinterland area of its resources:

...the prosperity brought along by a good harvest is fleeting, and the wealth generated in the area does not remain there. It is skimmed off by the merchants, middlemen and speculators, leaving the area and its peasants as poor and neglected as they were at the beginning. This kind of phenomenon, which has been called 'internal colonialism,' is fairly extended. It means that even in the regions of prosperous agriculture progressive de-capitalization may occur. This occurs even more acutely in the poor areas.

Increasing dependence on imported, manufactured goods also prohibits the expansion and diversification of the rural economy: "Reorganization of the local economy becomes virtually impossible when dependence upon imports from more developed economies is involved, for undercapitalized peasant producers cannot hope to underprice highly capitalized producers in the initial stages of production diversification". This results in a situation commonly referred to as 'structural dependency'. Opportunities for development within the peasant sector are restricted by the existing market relations.
While it is recognized that a complex of factors are required to promote agrarian development in the peasant sector of rural economies, the diffusion of new methods, 'modernization' and the integration of peasants within the national economy by the extension of communications and transportation links are not sufficient conditions for socioeconomic development. On the contrary, the integration of peasants as producers or primary products for an external market may lead to the 'underdevelopment' of the local economy. Therefore, it seems critical to analyze the type of market system that exists to distribute local products when attempting to explain or account for the apparent lack of development within a region. The spatial network created by trade flows and exchange centres indicates the form of market distribution, and reflects the underlying structural relations within the economy.

Development and marketing in southern Veracruz

The southern part of the state of Veracruz is relatively undeveloped in comparison to the urban industrialized centre of Mexico. The area is predominantly rural, with only limited urban development in a few administrative - service centres. The local economy is based largely upon the cultivation of food staples, pineapple, cane, tobacco, coffee and upon cattle rearing, with some agricultural processing in the form of sugar refineries, canneries and cigar manufacturing. In contrast to the highland
states of central Mexico the population density is low, communications are poorly developed and access remains difficult to much of the area.

Despite national agrarian policy to provide more land and security of tenure and to foster agrarian development, rural poverty persists within the peasant sector. The majority of ejidos and colonias show few signs of economic development: farming is primitive, modern facilities are absent and the standard of living is low. I would argue, contrary to earlier theories of economic dualism, that the lack of development in the peasant sector does not stem from the marginal position that ejiditarios and colonos occupy with respect to the national economy, but rather from the way in which peasants have been integrated into the national economy through the market system.

My thesis is that peasant producers in this area have been integrated into the national economy as producers of food staples for central urban markets and as consumers of manufactured goods from the earliest days of agrarian reform which gave them the right to dispose of their own surplus production. The rural market system in this area is dendritic in character, and has developed primarily in response to 'external' demand for local products. The predominant trade flows are vertical and horizontal exchange
within the region appears to be limited. The development of the market system is determined by the nature and development of transport and communication linkages, and by the nature of local agricultural production systems, particularly the scale of production, the distribution of production centres, and the changing pattern of land use within the area.

My initial objective was to demonstrate the manner in which the development of the market system has contributed to the underdevelopment of the peasant sector through the appropriation of surpluses by local middlemen and the subsequent drain of capital from the periphery towards the centre. Specifically, I sought to analyze the way in which the market is organized, the type of relations between buyers and sellers, and how and where surpluses are accumulated. Unfortunately, I was unable to realize this objective and therefore narrowed my focus to the development of the market system itself and the analysis of the factors responsible for changes within the spatial and structural organization of trade and the persistence of particular features of the market system. 23 While I was unable to document the flow of capital through the system or to demonstrate the drain of resources from the regional economy, it is possible to show how the organization of the market system has limited the marketing opportunities available to peasant producers within the area. The implications
of this for the economic development of the peasant sector are discussed in the concluding chapter.

The main objective of the research then, was to analyze the development of the market system for the bulking of food staples produced by the peasant sector from the turn of the century to 1975, the year in which field work was undertaken. The most significant feature of the market system is the predominance of vertical trade flows over horizontal exchange. Food staples produced by the peasant sector do not pass through a network of rural market places, but are bulked by local itinerant and sedentary traders, and move upward through a hierarchy of commercial centres within the region before being 'exported' to the urban and industrial centres of central and southern Mexico. Although a number of permanent, daily markets, or mercados, are found in the small towns of the region, these function to distribute imported goods to local consumers and do not play a role in the bulking of local agricultural commodities.

Factors affecting the development of the market system

External demand

Growth and expansion in the urban-industrial sector of the national economy has created a high demand for food staples and stimulated the development of a market network to distribute
produce from rural areas to the major urban centres. The relatively low level of demand for food staples within the producing regions has further aided the development of a dendritic market system in which vertical trade predominates over horizontal exchange.

The urban population of Mexico is increasing at a rate of almost five percent per annum due to the addition of rural-urban migration to the natural rate of increase. Much of the urban population is concentrated in the central valley of Mexico particularly within the Federal District. To the immediate south of Mexico City lie several industrial centres including the cities of Puebla and Cordoba. During the first half of the twentieth century, foodstaples produced in southern Veracruz were shipped to markets in this central core. Today, additional demand emanates from the region of the lower Papaloapan River in central Veracruz which is mainly devoted to the cultivation of sugar cane, and from the rapidly growing cities along the Gulf Coast which are associated with the extraction and refining of Mexican petroleum.

Meanwhile, a number of factors have contributed to the low level of demand within the research area. These include the lack of diversification within the local economy and the absence of a sizeable urban population. The majority of peasants within the area are engaged in the cultivation of traditional foodcrops,
namely corn, beans and rice. Following agrarian reform and the redistribution of land, the level of specialization in agricultural production declined markedly as peasants turned to cultivating the crops with which they were most familiar, and which required a minimal level of capital investment or of technical expertise. The population of the area is predominantly rural; prior to 1950, only two towns, San Andres Tuxtla and Santiago Tuxtla, had populations exceeding 5000. Despite the recent growth of several commercial-administrative centres within the area, local food needs are insufficient to absorb the surplus production of the area.

**Transportation**

The difficulty of transportation and the relative inaccessibility of the area contributed to the development of a regional commercial hierarchy. The construction of a rail link from central Mexico through the area greatly facilitated the movement of goods in and out of the region, but at the same time allowed a group of regional middlemen to control and dominate trade from a series of commercial centres located along the railroad. Poorly developed communications within the area created a disjunction between inter-regional and intra-regional transportation and assisted in the development of dendritic trade links as local commercial hierarchies developed around the regional commercial centres.
Since 1950 three major highways have been built through the area providing links with several major urban centres in central and southern Mexico. This development has strengthened the vertical linkages between the core and the periphery as improved access has facilitated the penetration of the area by externally based traders. However, the rural road network has been improved only marginally and access to many peasant communities remains difficult. It will be argued that the difficulty of rural communications is a factor contributing to the persistence of the dendritic structure despite improved inter-regional transportation.

Local production

The scale of production is a critical factor in determining the structure of the local market system along with the spatial distribution of production centres. When land is concentrated into a few large holdings, the number of merchants required to serve producers diminishes, whereas the existence of numerous small scale producers tends to support a more highly developed commercial hierarchy and a multiplicity of middlemen (Appleby 1976b). Although land grants were made to peasants in the form of communal holdings or ejidos, few of these are farmed collectively. The majority of ejidos are divided into individual plots, or parcelas, ranging from five to twenty hectares to which ejido members, or
ejiditarios have usufruct rights.

Although the individual ejido is a nucleated settlement, the communities are widely dispersed across the landscape and interspersed with private holdings. This spatial distribution of production centres combined with the absence of a well developed rural road network increases the cost of transportation in rural areas, inhibiting the rationalization of the market system.

Over the time period in which the development of the market system is being studied, there have been some changes in land use. While new land has been brought under cultivation in some parts of the region, elsewhere the production of foodstaples has declined as alternative crops have been introduced or agricultural land converted to pasture. These changes in land use have modified the pattern of trade flows and affected the activities of local traders.

**Organization of chapters**

In the following chapter, the location, boundaries and environmental characteristics of the field area are described, and the manner in which the latter have influenced the nature of the agrarian economy and the development of communications is outlined. In the third chapter I examine the changes that have occurred in the spatial and structural organization of the market system, focussing on the impact that transportation developments have had.
The manner in which the participants of the market system have adapted to the changing socio-economic environment is analyzed in chapter four, specifically how improved communications, competition from external buyers and changing patterns of land use have affected the marketing behaviour of individual traders based within the field area.

A summary of the development of the market system is presented in the final chapter with an assessment of the change in marketing opportunities for peasant producers within the area. In conclusion, certain questions are raised concerning the impact of the market system and increasing integration of the peasant sector into the national economy, as well as the persistence of small scale middlemen in the face of increasing competition from external traders and the commercialisation of the market system at higher levels, and some directions for further research are outlined.
Chapter One: Notes

1 McGee, 1978, p.94

2 The term 'Third World' is used here in reference to those countries outside the Capitalist West and Socialist blocs, which are variously described as 'developing', 'less developed' or 'underdeveloped' (McGee 1978). The Third World comprises approximately 130 non-industrial 'developing' countries (Dadzie 1980), out of which was formed the 'Group of 77' which pressed the United Nations for the establishment of a new international economic order.

3 Logan, 1972, p.119. The concept of 'dualism' was first introduced by Boeke (1953) in his analysis of Dutch economic policies and their impact in Indonesia.


7 The theory of 'underdevelopment' is well propounded in the works of Andre Gunder Frank (1966, 1967). Frank denies the existence of a dual economy and argues that the structure and development of the capitalist system has led to the 'development of underdevelopment' as peripheral areas have been incorporated into the capitalist system. He sees the process of incorporation and the transfer of capital occurring within, as well as between, nations resulting in 'satellisation' as the most backward regions become dependent on, and hence satellites of, their regional and urban metropoli, to the benefit of the latter. Critiques of Frank's work are presented by Booth (1975) and Long (1975). Stavenhagen (1969, p.102-107) refutes the "erroneous" theses of dualism and development by diffusion.
Smith, C.A., 1977, p.117. Smith (loc. cit) has defined rural marketing systems as "networks of market places that distribute goods produced and consumed by peasants". However, I prefer to define rural marketing systems in broader terms as "networks of exchange centres" since the distribution of goods produced and consumed by peasants can, and does, occur in the absence of traditional peasant market places; instead products are bulked and distributed through the warehouses of local middlemen.

Ibid, p.118.

Several attempts have been made by anthropologists and rural sociologists to clarify and define the terms 'peasant', 'peasant economy' and 'peasant mode of production'. The main criteria of definition are covered in the various works of Shanin (1971, 1973a, 1973b, 1973c), and commented on by Mintz (1973). The concept of 'mode of production' is amplified by Franklin (1965) and by Long (1975).


Ortiz, 1967; Kelley, 1976; Appleby, 1976a, 1976b

Smith, R.H.T., 1979, p.489.

Wharton, 1962, p.28.

Pearse, 1968, p.73.


According to the Codigo Agrario, the size of private holdings is limited to 200 hectares of seasonal land, or 100 hectares of irrigated land. The ejido, or communal holding, was created to provide security of tenure for peasant farmers by guaranteeing them usufruct rights to the land. More detail on land tenure arrangements is given in Stavenhagen (1970, p.230).

The common price for uncleared land was $1.60 U.S. per acre. Colonists were usually given ten years in which to make payment, with a fixed interest rate of 3 percent per annum (Siemens 1964).

Appendix I

Unfortunately I have been unable to return to the area since the time that the original field work was undertaken.

Stavenhagen, 1970, p.242. In 1940, only 35.1 percent of the total population lived in communities of 2500 or more inhabitants, compared to 64.9 percent in 1978. Demographic studies indicate that by the year 2000, Mexico City, which today has a population of about 11 million, will have a population of 35 million (Gonzalez Casanova, 1980, p.195).
CHAPTER TWO
SOUTHERN VERACRUZ: PHYSIOGRAPHIC FEATURES AND LAND USE PATTERNS

The way in which the market system has developed in the twentieth century in southern Veracruz is closely related to the organization of local production systems, the pattern of rural settlement and the nature of the transportation system. In this chapter, I would like to examine in more detail the physical characteristics of the region that influence the nature of the agrarian economy and the development of communications, as well as the historical changes in the pattern of land use that are critical to understanding the development of the market system.

Following a description of the location, boundaries and environmental characteristics of the research area, this chapter focusses on the changing pattern of land use within the area and on the variation in the supply of agricultural products entering the market system. The mode of production, and the distribution of supply will influence the organization of commerce at the local level, as mentioned in the previous chapter.

The significant features of land use change are (a) the redistribution of land following agrarian reform and the concomitant
change in the system of production and (b) the expansion of rural settlement into previously unoccupied zones with a subsequent increase in the total area under cultivation. In addition to these major developments in the local agrarian economy, there have been some recent shifts in the pattern of land use, particularly as the supply of credit and the availability of technological assistance have increased, providing peasant farmers with new alternatives.

**Location and boundaries of field area**

The area designated for research is located in the southern part of the state of Veracruz, within the broad belt of relatively low land encircling the Gulf of Mexico known as the Gulf Lowlands. (Fig. 2) In contrast with the densely populated upland basins of central and southern Mexico, the Gulf lowlands have a relatively low population density. The intense heat and humidity and the prevalence of disease have in the past acted as deterrents to agricultural settlement. During the post-colonial period, the predominant land use has been extensive farming, while large tracts of forest have remained underexploited. Again in contrast to the highland states of Oaxaca and Chiapas, only limited research has been undertaken in this region by geographers and anthropologists, particularly with respect to the development of marketing.¹
The research area comprises six municipios (rural administrative areas) forming a broad belt 140 kilometres by 50 kilometres, extending from the Gulf Coast southwest to the Oaxacan border. (Fig. 2b) My primary concern lay in delimiting an area of sufficient size in which to study the development of the market network. Initially, I intended to restrict my research to one municipio, that of Playa Vicente, but the low population density and uniformity of the area did not provide the necessary variation in accessibility, settlement pattern and land use to assess the effect of these factors upon the development of the market system. As a result I extended my field area north to the coast.

For the sake of convenience in describing the research findings, I have divided the field area laterally into three broad zones corresponding with physiographic divisions: northern (including the municipios of Santiago Tuxtla, San Andres Tuxtla and Catemaco), central (including the municipios of Isla and Rodriguez Clara) and southern (the municipio of Playa Vicente). In very general terms, the density of population and ease of access decline inland from the coast, although this pattern is modified by local variations in topography and soils.

Climatically, there is very little real variation throughout the Gulf lowlands: the climate is sub-tropical. Temperatures are uniformly high ranging from 21° C to 27° C annually, permitting the continuous growth of vegetation. Precipitation is the critical
FIGURE 2 - Location and boundaries of field area (a) Veracruz state (b) Municipalities comprising field area.
factor in agricultural production; rainfall declines inland from the coast (Fig. 3a). The 'wet' and 'dry' seasons are sharply defined as 80 percent of all precipitation occurs from July to September. As a result continuous cropping is only possible on the river floodplains where water is available for irrigation (Fig. 3b).

**Physiographic Features**

**Northern zone**

Between the San Juan River and the Gulf Coast lie the Tuxtla uplands, a range of dissected volcanic hills rising to over 100 metres in the Sierra de San Martin (Fig. 3a). The fertile volcanic soils of the southwestern slopes have long supported a fairly dense rural population. The towns of Santiago and San Andres Tuxtla were established in the colonial period, but there is considerable evidence of prehistoric settlement throughout these hills. Not only do these slopes have a slightly cooler climate than the interior lowlands, but they also provide protection from the destructive north winds, or Nortes, of hurricane proportions that blow periodically between November and March.

As a result of the variation in aspect and elevation, a wide range of crops can be grown within the area including a variety of
FIGURE 3 - (a) Physical features of field area (b) Landform regions (based on Siemens, 1964, Map 4, p.28A)
fruits and vegetables. Traditional shifting cultivation effectively ceased with the consolidation of land into large estates during the nineteenth century. These *haciendas* were mainly devoted to the cultivation of sugar cane, tobacco, and coffee, the latter being grown at elevations of over 500 metres. Despite the natural fertility of the soil, long intensive use has resulted in the depletion of soil minerals, with a subsequent decline in agricultural yields. 'Ya no da el terreno' (the land doesn't yield much anymore) is a comment repeated often by peasant farmers in this zone.

Contrasting with the cleared, settled south western slopes, the higher elevations and the north eastern slopes of the Sierra de San Martin are sparsely populated, and until recently covered in dense forest. A number of new settlements, or *colonias*, have been established along the coast since 1950, but much of the forest remains uncleared. Communications to this 'frontier' region are poorly developed, and much of the forest is difficult to penetrate. In 1975 the sole access route to the coast was a narrow gravel road from Catemaco that climbs through a pass in the *sierra* before dropping down to the port of Sontecomapan. Although several feeder roads are planned to connect the communities along the coast with the main highway, so far none have been completed.

**Central zone**

The triangular interfluve between the rivers Tesechoacan and
San Juan is sometimes referred to as the San Juan Evangelista plain (Fig. 3b). These gently undulating plains, or lomas, that characterize the municipios of Isla and Rodriguez Clara, consist of shallow, arenaceous soils interspersed with gravel and pebbles. For the past three centuries this area has been utilized for the extensive grazing of cattle, and the natural vegetation cover of savanna and brushland has been mostly reduced to grasslands. Until 1960 only the floodplains were used for agriculture, and even here the danger imposed by periodic flooding has precluded the expansion of settlements. Although fertile, the clay alluvium becomes alternatively compacted during the dry season, and waterlogged during the rainy season.

Prior to agrarian reform and the break up of the large estates, most of this area was contained in the hacienda Nopalapan, owned by Franyutin, one of the largest cattle ranchers in southern Veracruz. The rural population of this zone consisted largely of vaqueros (cowhands) and their families, who maintained subsistence plots for their own needs only.

Although the well drained soils of these grasslands do not present an impediment to overland transportation, few roads existed within the area until recently, and the railroad served as the primary means of access. Before the railroad was built, the San Juan and Tesechoacan Rivers were used to transport goods
in and out of the area. However, these rivers also present effective barriers to overland transportation owing to the width, velocity and strength of current of both rivers. Today ferries are in use, but during the time of high run-off when much of the flood plain is inundated, the service may be suspended for days at a time.

Southern zone

South of the San Juan Evangelista plain the topography changes dramatically as the rolling lomas give way to the Isthmian hillland, an old piedmont now deeply dissected by numerous arroyos (gullies). Until the mid twentieth century, the only access to this zone was by boat up the Playa Vicente or La Lana Rivers, both of which narrow considerably upstream, restricting the passage of larger vessels.

Although there is evidence of prehistoric settlement, in the form of mounds, in this zone, a map of pre-reform settlement (Fig. 4a) reveals that most of the population was confined to the floodplain of the river Playa Vicente and its tributaries. The forested, central part of the municipio was unoccupied except for a few communities of refugees who fled from Oaxaca during the revolution. Over 80,000 hectares was owned by the Chazaro and Dehesa families and by Petroleos Mexicanos. During the 1950's the land was subdivided and made available for colonisation.
FIGURE 4 - Pattern of rural settlement (a) Pre-reform (based on Siemens, 1964, Map 5) (b) Present day (sources: Cuenca del Rio Papaloapan, Carta General), Comision del Papaloapan, November 1972; Siemens, 1964, Map 10
This area comprises the second 'frontier' zone within the research area.

Although initially high crop yields were obtained once the forest cover was removed, the red clay soils are subject to rapid leaching in the tropical climate and to laterisation. As a result agricultural yields have declined steadily in the last decade. Furthermore, the high clay content of the soil combined with the hilliness of the terrain makes road transport particularly difficult, and sometimes impossible, during the rainy season.3

The impact of agrarian reform

Before the Mexican Revolution, which lasted from 1910 to 1917, the hacienda was the dominant element in the rural landscape by virtue of its size and its role in the local economy.4 By 1910 most of the land in this area had been enclosed in large estates devoted to commercial crop production or cattle ranching. Only a few 'free' villages remained. According to Winnie, 80 percent of the population of rural southern Veracruz had no land of their own.5 People lived in villages located on hacienda lands as peones acasillados (indentured labour) or else in nearby communities and worked on the hacienda as peones alquilados (hired labour). Peons were permitted to cultivate their own small plots to meet subsistence needs, or else participated in a share cropping agreement.
with the hacendado (owner of the hacienda). In short, the peasant population had little control over the means of production or the distribution of the surplus, and were dependent upon the hacienda for employment and services.

Latifundismo (the concentration of land in large private holdings) and the intolerable living and working conditions of the peons were the causes of the peasant uprisings in the state of Morelos that sparked the civil war and resulted in the overthrow of the dictatorship of Porfirio Diaz. The new Mexican constitution of 1917 introduced regulations to ensure a more equitable distribution of agrarian lands by preventing the concentration of land into a few large holdings and by providing security of tenure for the peasant population. The latter involved the 'return' of former village property to peasant communities wherever possible. Needless to say, the expropriation and subdivision of the many latifundia occurred slowly, and in southern Veracruz many hacendados attempted to retain control of their property. It was not until the 1930's, under the Cardenas administration, that many of the large estates were broken up and ejidal titles granted.

Two types of rural settlements were created as a result of agrarian reform: the small private farm (pequeña propiedad) and the communal village holding (ejido). Private farms were
generally limited to 200 hectares of seasonal land or 100 hectares of irrigated land. Ejidos vary in size; sections of land were granted to groups of peasants on condition that the land could not be alienated. Individual members or ejiditarios were allocated plots, or parcelas, to which they have usufruct rights only; plots may not be sold, rented or mortgaged. Management of the land rests with an elected council of ejiditarios headed by the Comisariado Ejidal. Failure on the part of a member to fully exploit his parcela can result in it being transferred to another member.

The legal size of ejidal plots has varied over the years: it began with four cultivable hectares, and is at present twenty hectares of seasonal land, or ten hectares of irrigated land.

The majority of ejidos within the field area are associated with the old pre-reform villages (Fig. 4). As can be seen from the map the highest concentrations of settlement occur on the southwest slopes of the Tuxtla hills and along the floodplains of the San Juan and Tesechoacan-Playa Vicente Rivers. The varying density of population is reflected in the size of ejidal plots: in the central zone, individual parcelas are generally 20 hectares in size, whereas in the Tuxtlas plots range from 5 to 20 hectares, averaging 13.6 hectares.

Immigration from other parts of the state produced a marked increase in the total rural population of this area from 1930 to 1950, but during this period there was little change in the overall
distribution of the population. The main impact of agrarian reform was the change in the system of production and in the pattern of land use. Foremost is the reduction in the scale of production that resulted from the creation of new settlement types. Although the *ejido* is essentially a communal holding, few ejiditarios farm their land collectively. Secondly, while the typical *hacienda* was labour rather than capital intensive, it was a commercial enterprise with production oriented to the international market.

After the *haciendas* were subdivided, and peasants gained control over the means of production; specialized crop cultivation declined and was replaced by foodstaples. Peasants tended to grow the crops with which they were most familiar, that met their subsistence needs, and which did not require a high level of technological knowledge or capital investment. The production of corn and beans increased, while that of cane and tobacco decreased. Peasants continued to 'gather' coffee from existing bushes on former *hacienda* lands.

The previous marketing channels that existed to distribute the commercial crops produced by large scale farmers were not adequate to meet the needs of the numerous small-scale, often subsistence oriented, producers. Because of the commercial orientation of the *hacienda* economy and the dependence of most of the rural population upon the *hacienda* for their various needs (most purchases were
made at the *hacienda* store), no internal periodic market system developed to distribute products laterally across the region. As a result the colourful market places of highland Mexico are absent from this area.

Under the *hacienda* economy, the *hacendados* themselves undertook the responsibility for the marketing of their products. However, on the newly formed *ejidos* peasants lacked both the capital reserves and the marketing knowledge to seek outlets for their products. It was under these circumstances that a dendritic marketing system evolved to absorb local agricultural surpluses and to meet the urban food demands of the industrialized 'core' of the nation.

While the Mexican revolution destroyed the power of the land-owning aristocracy, it provided an opportunity for the development of a new rural merchant class. Before the revolution, the owners of the *haciendas* provided the link between the nation and the peasant community. This mediating, or 'brokerage' function has now passed into the hands of 'nation-oriented' individuals from rural areas. The development of the dendritic market system in this area following agrarian reform is characterized by the domination of regional merchants acting as intermediaries between the peasant producers and the central trading houses.
...we see that due to agrarian reform in Mexico, the rural economic and political power centres have moved from the hacienda to the regional towns, that a ruling class of large landowners has been displaced by a regional bourgeoisie...composed of merchants, store-owners, public officials and professionals of certain kinds whose activities relate to agriculture.'

The expansion of rural settlement

As early as 1926, a law pertaining to the colonization of unexploited lands had been passed, but it was not until after 1946, when a National Colonization Commission was established to oversee the transfer of land to would-be settlers, that colonization of the unoccupied frontiers of the Gulf lowlands took place on a significant scale. Under the Colonization Act, the owners of large tracts of uncleared land could receive government compensation for the release of their property, which was then subdivided and sold at marginal cost to landless farmers. Alternatively, a group of farmers could petition for the expropriation of unused land. The aim of this policy was twofold: it was intended to relieve the pressure on the land in the densely populated upland basins of Mexico, and to provide land for the landless in areas hitherto unexploited. The movement of people from the upland states of central and southern Mexico into the Gulf lowlands in search of land during the 1950's and 1960's became known as 'El Marche al mar', ('The March towards the Sea').
Between the 1950 and 1960 a number of new settlements were established in the central part of the municipio of Playa Vicente and along the northern slopes of the Tuxtla range (Fig. 4b). Apart from the demarcation of boundaries and the preparation of the necessary documents, no assistance was given to the settlers. The tasks of cutting an access route through the forest, clearing the land and preparing the site fell upon the shoulders of the colonists.

Land within the colonias is privately owned. Lot sizes range between ten and fifty hectares. The process of clearing the forested land was slow and arduous without powered equipment, and during the first years of settlement only a small portion of the land was brought under cultivation. However, as more land was cleared and planted, the high yields obtained from the deforested soils produced large agricultural surpluses in these frontier zones. Although production was high, the relative isolation of these communities and the lack of well developed communications presented the colonists with a variety of marketing problems.

**Recent changes in land use**

From the preceding discussion we see that during the first half of this century the supply of foodstaples increased first as a result of land redistribution and the subsequent change in farming practices, and secondly due to the increase in the area
under cultivation as rural settlement expanded into the 'frontier' zones.

The general pattern of land use in 1962 is shown in Figure 5a. It can be seen that the cultivation of food crops predominates throughout most of the area except for the San Juan Evangelista plain, devoted to extensive grazing, and the area around the sugar refinery at Cuatotolapan where farmers are contracted to produce cane for the mill.

Up until 1960, the Tuxtla region was the major source of production of corn and beans, and the area was known as the 'granary of Veracruz', ('La granaria de Veracruz'). The high density of population and natural fertility of the soils contributed to the high volume of production. According to Léon Medel, a native of San Andres and a local historian, the peak years of production were in the 1940's. Although no accurate data for the annual volume of production for this area are available, discussions with local farmers and merchants confirm this.

However, in recent years the production of both corn and beans has declined. Years of intensive use have depleted the soils of minerals lowering yields. Peasant farmers in the Tuxtla region complain that 'the land is tired', ('la tierra es cansada'). The small size of individual plots and the hilliness of the terrain prohibit the widespread mechanisation of farming; the application
FIGURE 5  (a) Generalized pattern of land use Circa 1962 (Siemens, 1964, Map 13, p. 114a)
(b) Predominant land use 1975 (Source: Fieldwork, 1975)
of fertilizer to the soil has resulted in the proliferation of a vine (bejuco) that strangles the maturing corn creating a further problem for farmers. The higher rainfall in this zone tends to give a high moisture content to harvested corn. As new areas of corn production have opened in the drier region to the south, yielding a higher quality corn, the Tuxtla have lost their comparative advantage. Because of these various problems and the low price received for corn, Tuxtla farmers have chosen to shift to alternative crops. The production of cane, tobacco, coffee and chili pepper has increased. Tobacco and coffee are now grown on ejidos with credit and supervision from the respective national marketing agencies of Tabamex and Inmecafe, which control the supply and distribution of these products within the country. A growing number of ejiditarios are contracted to grow sugar cane for the mills of San Miguel, San Pedro and San Francisco Narajal located near Lerdo de Tejada by the mouth of the Papaloapan River (Fig. 6).

The most dramatic change to occur in the pattern of land use within the last decade has been the transformation of the pastures of the central zone (Fig. 5). With technical and financial assistance from the rural credit banks, ejiditarios are now using tractors and fertilizers on the former grasslands to produce high yields of good quality corn of up to four tons per hectare. The low rainfall during the period when the corn is ripening and the relatively flat topography make this area particularly suitable
for agriculture. Although the total volume of production for this zone is still lower than that of the Tuxtlaa, the area attracts a large number of "outside" buyers during the harvest season and is becoming one of the major corn producing regions of southern Veracruz. The cultivation of pineapple, formerly grown only on private holdings, is also increasing on the ejidos. Three canneries (two privately and one publicly owned) already exist in Villa Isla and one was under construction in Rodriguez Clara at the time of fieldwork.

Within the southern zone, corn and rice continue to be grown on the floodplains of the Playa Vicente and La Lana Rivers, but the production of corn and sesame in the central part of the municipio has declined sharply since 1968. According to one buyer, corn production has dropped by 80 percent and that of sesame by 50 percent. A land capability study by the Papaloapan River Basin Commission concluded that the soils of the Isthmian hill-land are generally unsuitable for agriculture owing to the rapid leaching of nutrients once deforestation has occurred, but that if permanent pasture is sown, the land can support two head of cattle per hectare. Credit is now being offered to both ejidatarios and colonos through the Banco de Crédito Rurale de Golfo to assist and encourage farmers in making the transition, and technical assistance is offered in preparing the land and raising the stock.
These recent changes in agrarian land use within the field area can be expected to have a significant impact on the local market networks and commercial organization that developed in the first half of this century immediately following agrarian reform and the establishment of new settlement. The development of the market system and the impact of improved transport and communications are discussed in the following chapter within the context of the socio-economic and political changes that have been described above.
Chapter Two: Notes


2 Franyutin was reputed to own 45,000 head of cattle.

3 The surfaces of the dirt roads, while compacted in the dry season are quickly churned into mud during the rainy season. Also, during the latter, steep sided creeks that are fordable at other times of the year are converted into raging torrents by high runoff, and form an effective barrier to the movement of vehicles.

Siemens, 1961b, p.46. More detailed descriptions of the hacienda are found in Whetten (1948) and Chevalier (1963). Siemens (loc. cit.) offers a brief description of the hacienda:

   The hacienda of southern Veracruz, the dominating rural settlement type in the region, was in most cases a large estate, characteristically devoted to cattle or commercial crops. It featured a sizeable central residential and administrative compound, in or near which usually lived one or more groups of peones acasillados.

4 Siemens, 1961b, p.49.


7 In spite of these regulations, many ejidal plots are illegally rented and sold to other ejiditarios or private farmers.

8 Stavenhagen, 1970, p.237. Here it is also noted that in fact "many ejido farmers have less than what the law grants them. In 1960, the average size of the ejido farmer's plot was 6.5 hectares of cultivable land, but 44 percent of all ejiditarios had less than 4 hectares, and only 15 percent possessed more than ten hectares".
In the municipio of San Andres Tuxtla the average ejidal plot size is 13.8 hectares, in Santiago Tuxtla it is 11.5 hectares, and in Catemaco 15.4 hectares. (See Appendix 4).

Further details of population change in southern Veracruz are given in Siemens (1964).


According to Siemens (1964b, p. 78) there were only seven colonias in all the Gulf states in 1943, but by 1962 there were 175 colonias in Veracruz alone.

Among the colonias I visited, the initial price for uncleared land ranged between 50 to 60 pesos per hectare, corresponding to the figure of $1.60 U.S. per acre given by Siemens (1964a).


In 1975 the Banco Nacional de Credito Ejidal (Banco Ejidal), the Banco Nacional de Credito Agropecuario del Sureste (Banco Agropecuario), and the Banco Rural de Credito Agricola del Papaloapan (BRAPSA), merged to form the Banco de Credito Rural del Golfo, serving both private farmers and ejiditarios.
CHAPTER THREE
CHANGES IN THE MARKET NETWORK: IMPACT OF TRANSPORT DEVELOPMENTS ON TRADING PATTERNS

When 'external' demand for a product, or products, predominates over 'internal' demand within the producing region, the market system will be organized in such a way as to facilitate the movement of goods out of the region in the most efficient manner. The result is a market network in which 'vertical' flows of goods between the urban 'core' and rural 'periphery' predominate over 'horizontal' flows within the periphery. However, the particular form and structure of the market system is largely determined by the nature of the transportation system.

This part of Veracruz is characterized by its relative isolation and poorly developed communications. Access to the area has gradually improved since 1900 firstly through the extension of the national railroad system, and secondly, although much later, through the expansion of the national highway system (Fig. 6). Developments in transportation have emanated from the 'core' areas of the country, and gradually extended into the 'periphery'. As a result inter-regional transport has become more efficient, but this development has not been matched by comparable improvements in intra-regional communications. The rural road network remains poorly developed; the majority of rural roads are ungraded and unsurfaced.

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FIGURE 6 - Main transportation routes through southern Veracruz and adjacent states in southern Mexico
The purpose of this chapter is to examine the changes in the local market system from the turn of the century to 1975 by focussing on the impact that developments in the transportation system have had on marketing. Figure 6 shows the major transportation routes through southern Veracruz, and Figure 7 provides a more detailed map of the field area, indicating the main transportation linkages as well as communities visited during the course of fieldwork.

Until the turn of the century, riverine transportation predominated as no major overland routes yet existed. The San Juan and Tesechoacan Rivers formed the main transportation arteries, although pack animals were used for overland transport within the region. Goods were shipped down river in flatboats (chalanes) or by steamship to the mouth of the Papaloapan to ports on the Gulf coast.

During the first decade of the twentieth century, the railroad was extended southwards from central Veracruz towards the Isthmus of Tehuantepec, providing a direct link with the developed 'core' of central Mexico. An extension line from El Burro (now Rodriguez Clara) to San Andres Tuxtla was completed by 1913, although the railroad did not come into full service until 1922. Movement by rail rapidly supplanted riverine transport, and a number of small towns functioning as bulking and distribution centres grew up along
Figure 7 - Field area: Transportation network and principal centres of population and production.
the railroad around designated stations.

In 1953 the coastal highway from Veracruz passing through Santiago Tuxtla, San Andres Tuxtla and Catemaco was completed, and subsequently extended east along the Gulf Coast toward the Yucatan Peninsula. While communication improved markedly in the northern zone, access to the central and southern zones remained poor. By 1960 a road had been built from Isla to Santiago Tuxtla, but it was not paved and open to heavy traffic until 1968. It was not until the early 1970's that a substantial improvement in the accessibility of the central and southern zones occurred as two major highways were built through these areas forming linkages with the national network.

The era of riverine transportation

The historical antecedents of the contemporary market system, dominated by vertical exchange, lie in the nineteenth century; the domination of the rural economy by the commercially oriented hacienda precluded the development of an internal exchange system with a network of rural market places.

The majority of the haciendas in the Tuxtlas and in the dissected hill-land to the south were devoted to the production of cash crops: coffee, tobacco and sugar cane. The initial processing often took place on the hacienda itself, for example the drying of tobacco leaves and the shelling of coffee beans. The high quality
tobacco grown on the south western slopes of the Tuxtla hills was used in the manufacturing of cigars for the European market, the centre of this industry being San Andres Tuxtla.

The marketing of local crops was in the hands of the *hacendados* or rural landowners. Most of the products were shipped out of the area along the Tesechoacan and San Juan Rivers to the port of Alvarado on the lower Papaloapan River, although some products were taken overland to the port of La Paz (now Sontecomapan) operated by the coastal steamer company *La Compania Mexicana del Golfo*. From there they were taken to Veracruz for delivery to national markets or else shipped to overseas markets.

The Rivers Tesechoacan and San Juan were navigable by steamship as far as Playa Vicente and San Juan Evangelista respectively (Fig. 6). Steamship service was provided by two rival companies: those of Sheleske & Bailey and Perez and Chazaro.\(^1\) Jose L. Perez, Juan Chazaro and Eduardo Sheleske also owned three of the largest wholesale, import-export companies, or *casa comerciales*, in Veracruz, which together with their monopoly over riverine transportation gave them control over a large portion of trade within the state of Veracruz.\(^2\)

These *casas comerciales* not only purchased the products of the *haciendas* but also supplied them with imported merchandise. Basic necessities were distributed to the rural population through the *hacienda* store.\(^3\) Peons living in the *hacienda* villages
cultivated their own plots to meet subsistence needs, but 'the marketing of produce grown on these plots, was usually not allowed'.

In *La Historia de Veracruz*, Melgarejo mentions that only *comerciantes* (merchants) and *hacendados* were able to store grain, and that the extreme misery of the peasants prevented them from storing even a small part of their harvest. People living in the 'free villages' were not bound by the same restrictions as the peons on the *haciendas*, however, by 1910 few free villages remained and the majority of the population worked on the *haciendas* as *peones alquilados* (hired labour).

Although limited information is available on marketing for this period, it would appear that as a result of the export orientation of the *hacienda* economy, the absence of free villages and the control of both production and marketing by the *hacendados* no internal periodic market system developed within the area, hence the absence of rural market places.

*The coming of the railroad and the Revolution*

The construction of the railroad, the *Ferrocarril de Isthmo*, from Tierra Blanca to the Isthmus of Tehuantepec, with an extension line to San Andres Tuxtla was to alter the pattern of transportation within the area and lead to the development of a number of new commercial centres. This development in transportation coincided with the redistribution of agrarian land and the creation of the
ejido. The large commercially oriented estates were replaced gradually by numerous small holdings and private holdings of a smaller scale. On the ejidos peasants tended toward the cultivation of familiar subsistence crops, working with limited capital and using traditional farming methods.

The particular route taken by the railroad was decided as much by the interests of local parties as it was by the engineers of the railroad company. Construction south from Tierra Blanca began in 1902 and the line was completed as far as Santa Lucrecia (today Jesus Carranza) by 1904. The company had already located a station at Estacion Rives (known locally as El Burro after the rancho of that name). However, the location of another station fifteen kilometres to the west was due to the intervention of Alonso Isla Camacho whose rancho lay adjacent to the railroad. He successfully gained the friendship of the railway engineers, and using the arguments that the railroad crossed his land and that he had provided wood for the sleepers, persuaded them to establish another station known as Campamento Cinco, later Estación Isla. Both El Burro and Campamento Cinco expanded to become significant regional commercial centres renamed Rodriguez Clara and Villa Isla respectively (Fig. 7).

Originally an extension line was planned from Isla to Santiago Tuxtla, but the owners of the sugar refinery at Cuatotolapan
allegedly offered the company $50,000 U.S. and free passage across their land together with wood for the sleepers in order to re-route the line via the refinery. As a result the extension was built from El Burro through Cuatatalapan to San Andres Tuxtla instead, a decision that was to have a considerable impact upon the development of regional market networks. Although the line was completed in 1913, full service did not commence until 1922 when the country returned to relative stability.

From 1910 to 1920 the whole country was in a state of upheaval: 'todo el pais anduviera en revuelta'. Peasant uprisings in the state of Morelos triggered a civil war that spread throughout the country. Veracruz was by no means immune from the rising anarchism that pervaded Mexico. The countryside was subject to numerous attacks from bandits and guerillas who decimated the herds of the haciendas, burned crops and set fire to buildings. Many peasants invaded hacienda lands, and several of the hacendados fled their properties. Local production was disrupted and local commerce was adversely affected.

The formation of a dendritic market network: 1920-50

By 1920 most of the fighting had died down and a period of relative stability ensued. With the return of normal service on the railroad commerce began to flourish in southern Veracruz. The direct link with urban centres of demand in central Mexico provided a
stimulus to local trade. Although the new national constitution of 1917 provided the guidelines for agrarian reform, the redistribution of land was slow and legal recognition of new property boundaries did not take place until the 1930's under the Cardenas administration. As discussed in the previous chapter the impact of agrarian reform was to reduce the scale of production and to increase the total area devoted to food crop cultivation. The rural population of this area increased as a result of immigration from more densely populated areas where land was scarce: "the end of debt bondage ... permitted or forced large numbers of people to leave their local communities, and to seek new opportunities elsewhere".  

As riverine transport declined in favour of rail transport, a number of regional commercial centres developed along the railroad, functioning as bulking and distribution centres for their hinterland regions, namely San Andres Tuxtla, Rodriguez Clara, Villa Isla and Villa Azueta. As already mentioned, the lack of diversification within the rural economy and the absence of a pre-existing internal market system together encouraged the growth of vertical trade over horizontal exchange.

The network of trade flows formed a branching pattern as all products entering and leaving the region were funnelled through these centres (Fig. 8a). Producers from nearby villages often brought
FIGURE 8 - Development of market network (a) 1920-50 (b) 1950-60
sackfulls of harvested corn or beans into town on horseback to sell to a merchant. Where the distances were too great, entailing a journey of two or more days, bulking occurred either within the ejido itself, or in a village that developed as a subsidiary trading point either by virtue of its size or central location to surrounding communities.

The nature of the transportation system contributed to the formation of a hierarchical trading structure. Rail transport facilitated economies of scale, thereby favouring those traders with access to capital resources. Rail freight rates were calculated by the rail-car, or furgón, which held fifty tons of corn. Further economies of scale could be achieved if merchants were engaged in two way trade and were able to use the same rail cars to import merchandise. In addition, it was apparently necessary to have some degree of influence with the rail company to transport goods at all. As in the earlier period when the owners of the casas comerciales in Veracruz also managed the steamship service, powerful regional traders emerged who effectively monopolized the use of the railroad. Meanwhile transportation within the hinterlands remained primitive: villages were connected to regional centres by a network of local roads, or caminos vecinales, that were little more than bridle-paths.

The major buyers of foodstaples within the region were often the owners of large retail outlets, supplying not only the urban population but also the surrounding rural areas. Goods were
distributed to the hinterland through a network of village stores or tiendas. Money lending was an integral part of the marketing process. Tienderos (store owners) often received goods on credit from the casas comerciales in town. Peasant farmers with limited capital reserves were able to obtain items of merchandise on credit from the local tienda by making an agreement to deliver a portion of their harvest, often at a predetermined price that was below that of the market price. The tienderos bulked crops from the local area, and in turn delivered them to the regional comerciante.

As well as these sedentary village buyers, a number of itinerant buyers worked as intermediaries for the regional comerciantes. These traders travelled with packtrains of horses or mules to the more isolated communities. Peasants lacking their own means of transport relied on the services of these itinerant traders, who were usually given a sum of operating capital with which to purchase grain, and then paid on a commission basis.

Northern zone

The decision to terminate the rail line at San Andres Tuxtla rather than at Santiago led to the growth of San Andres, already a well established town, as the major commercial centre of the Tuxtla region. The well developed market network in this region, during this period, was related to the relatively high density of population contributing to a high volume of production. The sphere of
influence of the comerciantes based in San Andres extended through the municipios of Santiago Tuxtla, San Andres Tuxtla and Catemaco, stretching from the coast south to the San Juan River. The latter formed a barrier to communications between the northern and central zones. With the exception of a few isolated communities on the northern slopes of the Sierra de San Martin and along the Gulf coast the majority of peasant farmers traded at least part of their harvest.

Within the dendritic structure there existed two distinct commercial levels. Peasant farmers from ejidos close to San Andres, such as Comoapan, generally undertook the marketing of their own produce, and dealt directly with one of the major comerciantes in the town. However, those in more distant villages, who lacked their own horse or mule, or who were unwilling to risk the hazardous journey of several days, sold their crops to sedentary or itinerant buyers.

The larger villages of Catemaco, Sontecomapan and Salto de Eyipantla and the town of Santiago Tuxtla served as satellite trading centres within the regional hierarchy. It is interesting to note that the village of Tilapan functioned as an independent centre due to its location on the railroad. The surplus production from this ejido and from neighbouring villages was bought by the station master, jefe de estación, who dealt directly with wholesalers in central Mexico instead of with those merchants in San Andres Tuxtla.
Within San Andres, three or four comerciantes effectively monopolized regional trade in corn and beans; (a similar situation applied to the tobacco trade). During the 1930's Emilio Lopez Miranda, Antonio González and Fernando Fernández handled most of the 'export' in these products. During the 1940's Lopez Miranda, Camacho Aqua and Alfredo Pretelin were reputed to be the major buyers. In addition to bulking local products for distribution to the urban markets of central Mexico, Lopez Miranda and Camacho Aqua were two of the largest importers of merchandise in the Tuxtla region.

Although in competition with one another, these comerciantes, or acaparadores as they were known locally, formed an oligopoly setting the terms of trade within the region. There was considerable overlap of trading areas but each comerciante sought to establish his own sphere of influence. Lopez Miranda, alleged to own the largest trading enterprise in the region, bought foodstaples throughout the Tuxtlas, but apparently controlled most of the trade east of San Andres and in Catemaco. Meanwhile Camacho Aqua purchased mainly from villages to the south of San Andres as far as the San Juan River.

The level of competition among the intermediary traders was reputedly high. However, since the market price was set by the comerciantes in San Andres, these traders could not afford to raise
the price offered to producers, which was generally below that of the market price. Because of the dendritic structure of the market system, producers had no market alternatives.

Central zone

Within the central zone a series of small towns, or pueblos, functioning as bulking and distribution centres sprang up around the railroad stations of Villa Azueta, Villa Isla, Rodriguez Clara (formerly El Burro) and Juanita (Fig. 8a). Local trade flows formed a radial pattern around each centre. The volume of trade in this zone was lower than that of the northern zone as the population density was lower, and the majority of ejiditarios cultivated only one to two hectares of the floodplain, primarily for their own needs. The sphere of influence of comerciantes in each of these corresponded to the areas now enclosed within the respective municipio boundaries. Competition from comerciantes in adjacent towns, who also had access to the railroad inevitably restricted the size of trading networks. Because of the shorter distances involved, few satellite centres evolved, although it was not uncommon for some bulking to occur at the village level.

Of the pueblos in the central zone, Rodriguez Clara and Villa Azueta were the most significant as trading centres. The former was located at the junction of the two rail lines and was therefore a major transfer point. Villa Azueta, located on the crossing of the
railroad over the river Tesechoacan, served as a transfer point for all goods shipped to and from the pueblo of Playa Vicente. Products from the southern zone were either brought down river in chalanes, or else carried on horseback, to Villa Azueta from where they were taken by rail to markets in central Mexico. A few traders from Villa Azueta made regular excursions to the ejidos in the foothills of the Sierra Madre to purchase coffee, but most of the trade in the southern zone was handled by comerciantes in Playa Vicente itself.

**Southern zone**

Playa Vicente, at the upper limit of navigation of the Rio Playa Vicente - Tesechoacan, was known as a trading post during the nineteenth century. Following agrarian reform, it expanded as a commercial centre serving the rural population of this southern zone which was largely concentrated along the tributaries of the Rio Playa Vicente and along the Rio de la Lana. The network of trade flows that developed was similar to that of the Tuxtla region, forming a distinct dendritic pattern. Peasant farmers from villages such as El Arenal and Nigromante immediately to the south of the town brought their products into Playa Vicente on horseback to sell to one of the comerciantes who bulked goods within this region.

South of Playa Vicente, the village of San José Rio Manso was
reputed to be a minor commercial centre serving the string of ejidos along this tributary of the river Playa Vicente. In a similar manner Tatahuicapa functioned as a bulking and distribution centre for those communities along the Rio de la Lana. During the rainy season this river was used to transport some products directly downstream to Juanita; however, for most of the year the narrowness and shallowness of the channel prevented the extensive use of this route. As a result villages in this area were drawn into the dendritic network that centred on Playa Vicente. Here too, those comerciantes responsible for purchasing local commodities also functioned as distributors of various manufactured items and food products not produced locally. Many of these goods were supplied on credit to peasant farmers in return for the delivery of their harvested crops.

In summary, the overall pattern that emerges in the spatial organization of trade within the research area following the construction of the railroad is that of a typical dendritic structure consisting of a hierarchy of commercial centres wherein any centre deals with a number of lower level centres but with only one higher level centre. In this case, four commercial levels can be recognized: (1) the major urban centres outside the region - Mexico City, Cordoba, Puebla and Veracruz - that were a source of demand for local products as well as a source of supply for various manufactured items and other merchandise; (2) the regional commercial
centres of San Andres Tuxtla, Rodriguez Clara, Villa Isla, Villa Azueta and Playa Vicente, through which all goods entering and leaving the region were funneled; (3) subsidiary bulking distribution centres, or satellite centres, serving a group of villages within the hinterland; (4) the ejidos or actual centres of production (Fig. 9).

Within the region, trade was effectively controlled by a small group of multifunctional traders based within the regional commercial centres. Common reference to these merchants as 'los acaparadores' (those who corner the market) by local farmers lends support to the claim that these individuals did indeed exert a monopoly on trade within the region. Peasant farmers, or ejiditarios, sometimes dealt directly with these merchants, but often traded through a small scale intermediaries. These small scale traders lacked both the resources and the political influence to use rail transport and/or to seek market outlets outside the region. The nature of rail transportation allowed a small group of powerful traders to monopolize regional commerce and to determine the market price for goods within the region.

Network changes from 1950 - 1960

The completion of the coastal highway

In 1949 work commenced on a highway south along the Gulf Coast from Veracruz, passing through Santiago Tuxtla, San Andres
FIGURE 9 - Change in the hierarchical organization of the market system, indicating the pattern created by the movement of foodstaples towards urban markets.
Tuxtla, and Catemaco (Fig. 6). By 1953 this section of the highway was open to traffic, and it was subsequently extended eastwards through the states of Tabasco and Campeche towards the Yucatan Peninsula. The proportion of goods transported by rail from San Andres Tuxtla rapidly diminished as trucking was faster, cheaper and more convenient. The road also provided access to new markets: Alvarado, Lerdo de Tejada and the sugar refineries of San Pedro, San Miguel and San Francisco. The latter employ a large number of seasonal labourers, and the demand for foodstaples is high in this cane growing belt along the lower Papaloapan. The highway also provided access to the urban centres of Acayucan, Coatzalcoalcos and Minatitlan to the southeast (Fig. 7).

With improved communications, the relative importance of San Andres Tuxtla as a major bulking centre declined, while that of the other towns along the highway, particularly Santiago and Catemaco grew. As feeder or connecting roads were built from ejidos to the highway, more bulking began to take place close to the source of production. Buyers could now drive directly to the ejido, or else to the nearest centre on the highway. Large warehouses began to appear beside the highway in both Catemaco and Santiago.

Those adversely affected by this development were the large scale comerciantes in San Andres Tuxtla, whose monopoly over local trade was seriously undermined both by the appearance of 'outside'
buyers from urban centres along the Gulf coast and from the newly gained independence of local small scale traders. The shift from rail transport to trucking reduced the level of capital investment required to transport grain out of the region. It was no longer necessary to accumulate enough grain to fill a rail car, nor to maintain extensive storage facilities to house the grain while awaiting shipment by rail. Many small scale traders who had previously acted as intermediaries for the regional comerciantes began to operate independently, buying small quantities of grain, from up to five tons, and trucking this small load directly from the ejido to a wholesaler outside the region, bypassing San Andres Tuxtla (Fig. 8b).

The construction of the highway not only altered the spatial network of bulking centres but also affected the hierarchical structure of the local market system. While vertical trade continued to predominate, traders in lower level centres no longer dealt only with one higher level centre but with several. At the same time, improved communications allowed small scale traders to bypass the regional commercial centres, thereby reducing the length of the chain of intermediaries (Fig. 9).

These changes in the market system were, however, restricted to the Tuxtla region as there was limited improvement in communications throughout the rest of the field area. Although a gravel road was laid from Santiago Tuxtla to Isla in 1955, traffic
along this road was limited both by the poor quality of the road surface and the difficulty of crossing the San Juan River particularly during the rainy season when much of the wide floodplain was inundated. The section of the road north of the river was the most heavily used, mostly by traders from Santiago.

Colonization of the southern 'frontier'

Within the central and southern zones there was little change in the market system. The railroad still served as the main means of inter-regional transportation south of the San Juan River, and the main flow of trade continued toward the industrialized areas of central Mexico. However, in the decade from 1950 to 1960 the colonization of the interior of the municipio of Playa Vicente and the subsequent expansion of the area under cultivation contributed to the growth of Villa Isla and Juanita as significant regional commercial centres (Fig. 8b).

Initially the sole means of access to the colonies in the central part of municipio Playa Vicente was by dirt road, or brecha, from Villa Isla to Abasolo del Valle, with another path from Juanita to the resettlement zone along the Rio de la Lana. Dense forest and deeply dissected terrain inhibited the development of communications between the new settlements and the pueblo of Playa Vicente. As a result the first trading links to be established were with merchants from Villa Isla and Juanita to the north.
Comerciantes from these centres entered the newly settled areas on horseback with supplies of merchandise, and purchased surplus crops, mainly corn and sesame seed and some rice. From Villa Isla most of the corn was shipped by rail to central Veracruz, while sesame was sold on contract to the oil pressing plant El Faro in Cordoba. With the establishment of vertical trade links between the commercial centres along the railroad and the newly formed colonies, the dendritic network merely branched further out into the rural areas (Fig. 8b). The colonists, reliant on the services of these two or three comerciantes and lacking resources or knowledge of market outlets, were not in a position to determine the terms of trade.

Between 1950 and 1960 the only notable improvement in the transportation network in the southern zone was the widening and gravel surfacing of the road between Playa Vicente and Villa Azueta (Fig. 6). This project was undertaken by Petroleos Mexicanos who retained the mineral rights to lands sold to the colonists. This development did not alter the pattern or organization of the market system. On the contrary it strengthened the position of comerciantes in Playa Vicente enabling them to transport goods to and from Villa Azueta more efficiently.

Towards the end of the decade, Abasolo del Valle and Neuvo Ixcatlan, the largest of the colonies in the centre of the municipio
and along the Rio de la Lana respectively, began to develop as independent commercial centres causing a decline in the fortunes of merchants from Villa Isla and Juanita (Fig. 10a). Traders from within the colonies began importing merchandise directly from Cordoba and Veracruz and purchasing surplus production from other colonists themselves. These traders gradually expanded their sphere of influence to surrounding communities, thereby working in competition with the merchants from outside the area and severely reducing their volume of trade.

The only access to the settlements on the northern slopes of the Tuxtlas was by a narrow road from Catemaco to the village of Sontecomapan. From here it was necessary to travel on horseback, or else by boat along the coast. Few outside traders entered this area, giving comerciantes in Sontecomapan a monopoly over local trade.

Network changes from 1960 to 1970

In 1968 the road inland from Santiago Tuxtla to Villa Isla was paved and a bridge constructed across the Rio San Juan. Although the bridge was destroyed the following year due to heavy flooding, and to date has not been replaced, a cable ferry was put in service. Most products entering Villa Isla from the colonias to the south and from ejidos in municipio Isla were trucked out along the new road to Santiago, and then north or east along the coastal
highway. Other crops destined for markets in central Veracruz continued to be transported by rail (Fig. 10a).

Apart from the re-orientation of trade flows, the improved access to this zone resulted in a higher level of competition from outside buyers, particularly from traders based in the municipio of Santiago Tuxtla, weakening the position of comerciantes in Isla. However, from local accounts it would appear that the poor condition of the road from Villa Isla to the colonia of Abasolo del Valle deterred outside buyers from entering this zone. Also by this time the comerciantes in Abasolo del Valle and Nuevo Xcatlan had become well established in their multifunctional roles within the communities. With credit in short supply, many of the colonists were indebted to the local comerciantes and under obligation to turn over their crops to them.

Meanwhile, the condition of the road between Villa Isla and Rodriguez Clara was such as to prohibit the passage of large trucks between these two towns. According to local allegations, monies from the state and federal governments were made available for the improvement of the road surface, but comerciantes in Rodriguez Clara, anxious to protect their interests from outside competition, ensured that the funds were diverted to other uses. Dependence on the railroad to transport goods in and out of the area helped to preserve local monopolies and the dendritic structure of commerce.
FIGURE 10 - Development of market network (a) 1960-70 (b) Post 1970

(a) Market networks 1960-70

- Railroad
- Minor commercial centre
- Regional commercial centre

(b) Post 1970

- Paved highway
- Gravel road
- Local trade flows (to bulking points)
- Flow of products out of region

FIGURE 10 - Development of market network (a) 1960-70 (b) Post 1970
In summary, the changes wrought in market system in the Tuxtla region through the impact of the new highway after 1950 were largely restricted to that zone. Throughout the rest of the field area the dendritic structure remained intact and was further strengthened by the expansion of settlement into the frontier areas (Fig. 10a).

**The contemporary market system: Post 1970**

Between 1970 and 1975 two major highways were constructed through the central and southern zones respectively (Fig. 7). In 1972, the road from Tuxtepec south to Palomares was completed. This road, which crosses the Rio Playa Vicente seven kilometres south of the town of Playa Vicente and the Rio de la Lana east of Tatahuicapa, joins the Transisthmian Highway thus providing access to markets both north and south of the area (Fig. 6).

Meanwhile a second highway through the central zone was still under construction at the time field work was being undertaken. This highway parallels the railroad, running from Loma Bonita through Tesechoacan to Sayula, which is located just south of Acayucan on the Transisthmian Highway. Although the highway was still unsurfaced in 1975, traffic along the road was heavy. It is anticipated this road will soon replace the narrow twisting coastal highway as the primary transportation route through southern Veracruz.

Trucking has now replaced rail transport and most of the trade
flows have been re-oriented along the highways as indicated in Figure 10b. A number of feeder roads have been opened to connect villages with the highways, although few of these have been given an all-weather surface. Despite the impact on the spatial network of trade flows, which now assumes a more linear pattern, the changes in the overall market system are greater in the central zone than in the southern zone where the dendritic network persists in spite of the existence of the highway (Fig. 10b). This contrast is directly related to changing patterns of land use: while agricultural production has increased dramatically in the central zone since 1965, making the area attractive to outside buyers, that of the southern zone has declined as many of the farmers are converting arable land into permanent pasture.

Central zone

On three of the ejidos visited in the municipio of Rodriguez Clara the total area under cultivation has increased between 100 and 500 percent (Table I). With credit from the Banco Ejidal these peasants have successfully planted the rolling lomas, formerly used as pasture land, by using fertilizers and more modern agricultural techniques. Yields of three to four tons per hectare of corn are now common. Ejiditarios are being encouraged by the credit bank to form small groups or societies of ten or more individuals and to farm their land collectively, and to market their produce in the same manner.
TABLE I  Increases in the area under cultivation in municipio of Rodriguez Clara*

<table>
<thead>
<tr>
<th>Municipio</th>
<th>Total hectarage</th>
<th>Number of hectares cultivated in 1965</th>
<th>Number of hectares cultivated in 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Blanco</td>
<td>3000</td>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>Nopalapan</td>
<td>8000</td>
<td>1000</td>
<td>5000</td>
</tr>
<tr>
<td>Casas Viejas</td>
<td>1200</td>
<td>80</td>
<td>300</td>
</tr>
</tbody>
</table>

*Source: Field work 1975

The combination of a high volume of production and improved communications attracts a large number of outside buyers to this area. Several ejiditarios in this zone claim that, in contrast to previous years, they now sell to non-local buyers, gente de afuera, many of whom drive straight to the village to buy. Unfortunately it was not possible to ascertain whether these buyers are independent truckers or employees of urban based wholesale firms, although I was told that in 1974 buyers for the large corn mill and tortilla factory at Chinameca near Minatitlán bought a considerable portion of the corn harvested on the ejido of Nopalapan.

Although many of the ejiditarios interviewed in this zone claimed to sell most of their harvest to outside buyers, other informants from Rodriguez Clara stated that during the peak harvest period many non-local truckers pull off the highway into the town of Rodriguez Clara (only one kilometre to the south). These buyers
do not drive to the source of production but rather choose to deal with one of the local 'coyotes', small scale independent traders who have already bulked several tons. This system offers considerable advantages to the external buyer: the pickup trucks used by local traders are more suited to the rural road system. Secondly, although some farmers on the larger ejidos sell their harvest collectively, many ejiditarios continue to farm individually; the purchasing of small quantities from these producers is a time consuming process. The high costs involved in dealing with numerous small-scale producers, particularly to a buyer unfamiliar with the area, outweigh the economies of scale achieved through bulk buying.

In summary, the construction of the new highway has improved access to this zone resulting in the penetration of the area by outside buyers. Competition from these buyers has altered the structure of the market system by undermining the former monopoly of comerciantes in Rodriguez Clara, although it has only led to a partial rationalization of the market system. While some urban based traders now deal directly with producers, others prefer to buy from local small scale traders.

Southern zone

In the municipio of Playa Vicente, the existence of the new highway has had a certain impact on local marketing practices. Peasant farmers no longer take their harvested crops on horseback
into the pueblo of Playa Vicente to sell them. Now local comerciantes either drive straight to the ejido, or else where access to the village is difficult, to the nearest point on the highway. In the latter instance, peasant farmers take their products on horseback down to the roadside, having previously arranged a time for the 'pick-up'. Not all peasant farmers deal directly with a comerciante in Playa Vicente: many still sell to a village buyer, who may be an intermediary for one of the merchants in Playa Vicente. For example, local buyers are known to purchase a high proportion of local surpluses in the villages of El Paraiso and La Ceiba (Fig. 7). In both these villages, the local buyer also manages the village tienda, which is supplied with merchandise from Playa Vicente.

Despite improved communications in the southern part of the municipio and direct access to the city of Tuxtepec to the north, local trade remains largely in the hands of merchants in Playa Vicente. The lack of competition from outside buyers can be partly attributed to declining agricultural production in this zone. The volume of agricultural commodities exported from the municipio has dropped steadily since 1968, with the exception of rice. Today only 30 percent of the cleared land in the municipio is devoted to arable use, while the remaining 70 percent is sown pasture. Meanwhile the number of head of cattle exported from the municipio has risen from an annual total of 7700 in 1968 to 12,424 in 1975, reflecting the increase in ranching in the area.
The combined factors of a declining volume of production, the small scale of production and the lack of a well surfaced rural road network are probably responsible for the low level of competition from external buyers. Few villages within the municipio reported the presence of non-local traders, and ejiditarios generally named one of the four comerciantes in Playa Vicente as their market outlet unless they sold to a local village trader.

An exception to this pattern was the village of La Victoria, situated 10 kilometres to the northeast of Playa Vicente on the opposite bank of the river (Fig. 7). This ejido which produces corn and pineapple appears relatively prosperous, and one or two ejiditarios have become middlemen for producers in the area and are buying corn themselves and transporting it by truck directly to urban wholesalers in the town of Loma Bonita. The recently opened highway between Loma Bonita and Villa Azueta has considerably reduced the time and cost of transportation for these peasants, who have taken advantage of improved access to market outlets.

Northern zone

Although buyers from all over southern Mexico now enter this zone to buy foodstaples produced on the ejidos and on private farms, it would appear from local accounts that in general these buyers prefer to deal with local traders, or large scale farmers rather than with the small scale peasant farmer. On many of the ejidos the production of corn and beans has declined, as that of sugar cane
has increased. (Cane is generally produced on a quota system and delivered directly to the sugar refineries around Lerdo de Tejada). For example, in the village or Zapoapan de Cabañas where the volume of corn grown is relatively low, ejiditarios sell their corn to a trader within the ejido, even though this community is located right on the highway. Truckers entering the ejido buy directly from the trader.

**Summary**

In summary, the construction of the railroad at the beginning of the twentieth century provided a direct link with urban centres of demand in central Mexico, thereby stimulating trade within this region, in particular the 'export' of foodstaples grown on peasant holdings or ejidos. Local merchants based in the towns along the railroad successfully monopolized rail transport and gained control over the inflow and outflow of commodities, and were thus able to determine the terms of trade within the region. The primitive means of transportation in use throughout most of the area and the small scale of production contributed to the formation of a dendritic market system consisting of a hierarchy of commercial levels. Local surpluses moved upwards through this hierarchy of bulking centres towards the regional commercial centres located on the railroad.

The expansion of settlement into the 'frontier' zones in the 1950's produced an extension of the existing dendritic network.
Comerciantes from nearby towns included the new settlements in their market networks, supplying the colonists with merchandise, and in return purchasing surpluses produced on the colonias. However, as these settlements became established, the largest of the colonies developed into independent commercial centres with dendritic extensions into the immediate hinterland area.

The impact of the extension of the national highway network into this peripheral region has been to provide access to a greater number of urban markets and to increase mobility within the region. The declining importance of rail transport in the face of cheaper and faster transport by road has adversely affected wholesale trade in the former regional commercial centres whose growth had been based on their proximity to the railroad. With the shift to trucking many traders now by-pass these centres altogether, thereby undermining the former monopoly on trade held by comerciantes based in these towns. The lower level of capital resources required to move products by road has enabled small scale traders from within the area to operate independently and to deal directly with wholesalers from outside the region. Improved communications have also encouraged the penetration of the area by 'external' or non-local buyers, thereby raising the level of competition in marketing.

Throughout much of the area then the dendritic market structure that characterized marketing during the first half of this century is being replaced by a more complex interlocking network of trade flows.
The changes in the market network are illustrated in Figures 8a, 8b, 10a and 10b. Individual market centres are linked to several higher level centres as well as to several lower level centres where communications are good. However, it is important to note that the dendritic structure persists in the more inaccessible areas, and the changes in marketing are modified by the pattern of land use. Where a high volume of production is combined with good access, the number of outside buyers reported by peasant farmers is high. However, the degree of competition from external buyers declines in areas where the volume of agricultural production is low or declining and where access remains difficult. In other words, while improvements in transport and communications tend to lead to a rationalization of the market system with a reduction in the length of the chain of intermediaries and the establishment of move direct flows between rural and urban centres, the persistence of small units of production or of a low volume of production prevents such economies of scale from being realized, thereby contributing to the maintenance of a dendritic market structure.
Chapter Three: Notes

1 Corro, 1951, p.13.
2 Ibid, p.15.
3 Goods were supplied to the rural population through the hacienda store, often on credit. This mechanism was used to enslave the rural labour force through debt bondage.
4 Siemens, 1964b, p.49. (citing Winnie, 1956, p.236)
5 Melgarejo, 1961, p.221.
7 Parkes, 1960, p.343.
10 Acaparador: lit. one who corners the market.
11 No figures for the volume of production were available for this period, but local people claim that the production from the central zone was 'insignificant' compared to that of the Tuxtla region.
13 Following the construction of the dam 'Miguel Aleman' across the Papaloapan River at Temascal, the inhabitants of the inundated area behind the dam were resettled in colonies along the Rio de la Lana. The largest of those relocated communities is that of Nuevo Ixcatlan.
14 see Chapter Two.
The term 'coyote' when applied to a local trader is a derogatory one, alluding to the wild dog or coyote who manages to enter the corn field and steal the ripening cobs of corn. The small scale trader who appears before the corn is harvested and takes advantage of the limited alternatives open to the farmer to purchase the corn below the market price is regarded as having 'stolen' some of the profit that should accrue to the producer.

15 Hacienda del Estado, Municipio Playa Vicente.
CHAPTER FOUR

THE ADAPTIVE MIDDLEMAN: CHANGES IN LOCAL MARKETING BEHAVIOUR

So far it has been argued that changes within the local market system for the distribution of foodstaples produced by the peasant sector can be attributed to the extension and improvement of the transportation network, the organization of local production and the changing pattern of land use. The impact of the changes on the spatial organization of trade was discussed in the previous chapter where the resulting alteration in the pattern formed by the movement of goods, the location of exchange centres and the structure of the commercial hierarchy were outlined.

Changes in the market system, in the spatial and structural organization of trade, reflect the aggregate decisions and actions of the individuals who participate in the exchange of goods and services. In this chapter, I propose to examine in closer detail the manner in which some of the participants have adapted to the changing socioeconomic environment, specifically how improved communications, competition from external buyers and changing patterns of land use have affected the marketing behaviour of individual traders based within the research area.
Of the twenty-three traders interviewed during the course of field work (see Appendix III), I have selected ten case studies which are presented below in order to provide a comparison of the marketing behaviour of traders operating during the first half of the century with that of contemporary traders, and to illustrate the manner in which different individuals have adapted to changing circumstances. Although the sample was not selected on a representative basis, the group does include buyers operating on widely divergent scales at different levels of the commercial hierarchy, in different parts of the field area and over different periods of time.

Marketing behaviour in this context refers to the economic functions carried out by traders, including those of exchange (bulking and distribution), transportation, storage, as well as complementary functions such as money lending. The scale of operation, the degree of specialization, the areal extent of activities, and whether trading is a full-time or part-time activity, are all important attributes of marketing behaviour. With regard to the scale of operation, the traders interviewed were generally reluctant to divulge information concerning the amount of capital invested in the enterprise, the volume of trade handled or the level of profit gained. But the size of an individual's trading area in which buying and selling occurs, the extent of their transportation and storage facilities, and the position of the individual within the local
commercial hierarchy can be used as indices of scale of operation.

In describing individual traders the terms mayorista and minorista are used. Mayorista generally refers to a wholesaler, in this instance a trader who bulks and distributes commodities across the state or the nation. A minorista is a minor buyer, a small scale trader, often self employed, who buys directly from the producer and whose market network is considerably smaller than that of the mayorista. The term comerciante is used to describe large scale traders for whom commerce is the primary economic activity.

The following case studies are drawn from the northern and southern zones; the first seven from the municipios of San Andres Tuxtla and Catemaco, and the remaining three from the municipio of Playa Vicente. (Fig. 11) The southern zone is the least accessible of the three zones comprising the field area, and prior to the colonization of the central part of the municipio, the least densely populated. In contrast, the northern zone has the most highly developed communications network; the coastal highway was completed in 1953, and since then a number of feeder roads have been constructed to connect villages to the highway.

Although a new highway running from Tuxtepec through the southern half of the municipio of Playa Vicente was opened in 1972, there does not appear to have been the same influx of external traders as occurred in the Tuxtla region after 1950. The difference can be attributed to the relatively low volume of production.
Location of traders dealing in food staples

1. Pretelin
2. Iler
3. Martinez
4. Garcia
5. Hernandez
6. Charmin
7. Cinta
8. Alvarez
9. Borrameo
10. Osorios

FIGURE 11 - Base location of traders dealing in food staples from within field area.
Although production of corn and beans in the Tuxtlas has declined since 1960, agricultural production is still significant to the local economy and competition among buyers within the region is high. Within the municipio of Playa Vicente, only 30 percent of the cleared land is now devoted to agriculture, the rest having been converted to permanent pasture. The level of competition among buyers is particularly low in the central part of the municipio: since the settlement of the area in the 1950's, communications have improved only marginally, and access to the colonias remains difficult.

Traders operating before 1950: northern zone

The first three traders listed in Table II(i) were engaged in the bulking of foodstaples before 1950, when all grain produced in this area was transported by rail from San Andres Tuxtla, which functioned as the commercial centre for the region. The market system for the bulking of foodstaples was dominated by three or four acaparadores, who not only monopolized inter-regional transportation but also financed several intermediaries within the hinterland area to purchase corn and beans from peasant farmers. Alfredo Pretelin (1) was one of the four main grain buyers in the region, while John Iler (2) and Antonio Martinez (3) worked as intermediaries, the former for Pretelin and the latter for Lopez Miranda.
<table>
<thead>
<tr>
<th>Name</th>
<th>Alfredo Pretelin</th>
<th>John Iler</th>
<th>Antonio Martinez</th>
<th>Julio Garcia</th>
<th>Daniel Hernandez</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>base</strong></td>
<td>San Andres, Tuxtla</td>
<td>Coyame, Catemaco</td>
<td>Catemaco</td>
<td>Catemaco</td>
<td>Zapoapan, Cat.</td>
</tr>
<tr>
<td><strong>Market Functions:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Bulk Agri. commodities</td>
<td>corn, beans</td>
<td>corn, beans</td>
<td>corn, beans</td>
<td>corn, beans</td>
<td>coffee, corn, chili peppers</td>
</tr>
<tr>
<td>- Distribution of Merchandise (retailing)</td>
<td>Regional sales rep. for several companies inc. Corona, Purina, Harina de Veracruz</td>
<td>corn, beans</td>
<td>corn, beans</td>
<td>1953 - 1963 retail outlet in La Palma</td>
<td></td>
</tr>
<tr>
<td>- Money lending</td>
<td>Financed local farmers &amp; intermediaries</td>
<td>some, not extensive</td>
<td></td>
<td>Extends some credit to ejidatarios in Zapoapan</td>
<td></td>
</tr>
<tr>
<td><strong>Scale of Operation</strong></td>
<td>Mayorista</td>
<td>Minorista</td>
<td>Mayorista</td>
<td>Mayorista</td>
<td>Minorista</td>
</tr>
<tr>
<td>- Buying Area</td>
<td>Tuxtla region</td>
<td>Mun. Catehaco, Macayapan &amp; San Andres</td>
<td>Southern Mexico, including local region</td>
<td>Southern Mexico, particularly Tabasco, Chiapas &amp; Puebla states</td>
<td>Municipios of Catehaco, San Andres</td>
</tr>
<tr>
<td>- Selling Area</td>
<td>Cordoba, Puebla, Veracruz, lower Papaloapan, Coatzala locom</td>
<td>Initially San Andres expanded to include Cordoba, Puebla &amp; Southern Mexico</td>
<td>coffee to Acayacan &amp; Coacabitas</td>
<td>chili to Tuxpan</td>
<td>corn to itinerant truckers</td>
</tr>
<tr>
<td>- Transportation</td>
<td>several trucks</td>
<td>1, 3 ton truck</td>
<td>8, 6-10 ton trucks</td>
<td>several trucks</td>
<td>1 small truck</td>
</tr>
<tr>
<td>- Storage Capacity</td>
<td>2 large warehouses in San Andres</td>
<td>1 large warehouse in Coyame</td>
<td>2 large warehouses 1 km. from Catehaco</td>
<td>1 medium size warehouse</td>
<td>Small store house</td>
</tr>
<tr>
<td><strong>Self Employed</strong></td>
<td>self employed, &amp; corn buyer for NDR</td>
<td>Pre 1955 buyer for Pretelin</td>
<td>Pre 1955 intermediary for Miranda,</td>
<td>Self employed and buyer for Inecoasa</td>
<td></td>
</tr>
<tr>
<td><strong>No. of employees</strong></td>
<td>5 mainly truckers</td>
<td>Post 1950 self employed. No employees</td>
<td>Post 1950 self-employed. Several employees</td>
<td>Self-employed hires 5 drivers</td>
<td>no employees</td>
</tr>
<tr>
<td><strong>Full-time/Part-time</strong></td>
<td>Full time previously now semi-retired</td>
<td>Part-time - now no longer trading</td>
<td>Full-time, although withdrawing interest</td>
<td>Full-time</td>
<td>Part-time</td>
</tr>
<tr>
<td><strong>Alternative occupation</strong></td>
<td>Agriculture, Bottling Factory Electrical repairs</td>
<td>Agriculture, Bottling Factory Electrical repairs</td>
<td>Cattle Ranching (La Palma)</td>
<td></td>
<td>Agriculture (Col. Elágua)</td>
</tr>
</tbody>
</table>
Alfredo Pretelin: former 'acaparador', San Andres Tuxtla

Alfredo Pretelin was one of the main buyers of foodstaples in San Andres Tuxtla between 1935 and 1960 along with Lopez Miranda, Antonio Gonzalez and Camacho Aqua. As a youth Pretelin was employed in the tobacco industry, but in 1925 he started his own business trading in corn and beans. By the mid 1930's his enterprise had expanded so that together with Lopez Miranda he had a virtual monopsony on grain produced within the municipio of Catemaco and a large share of the market for corn produced in the municipios of San Andres and Santiago Tuxtla.

According to Pretelin himself, the market was 'tightly organized'; he had intermediary buyers, comisionados, in most of the major centres of production, as well as itinerant traders with pack trains of mules or horses who travelled through the more distant and inaccessible parts of the region. Within San Andres, Pretelin had two large warehouses; during the harvest season he personally bought from peasant farmers who brought their own produce into San Andres to sell directly to the warehouse. Pretelin supplied credit in the form of seeds and other agricultural inputs to peasant farmers, and received a certain portion of their harvest in return.

Although Pretelin retained some corn in storages for retail distribution in San Andres during the period between harvests, the bulk was delivered by rail to wholesalers in Cordoba, Veracruz, Puebla, and Mexico City. When the government agency, Nacional
Distribuidora y Reguladora was formed in 1941 in an attempt to control the supply and distribution of corn, beans and wheat within the country, Pretelin was hired as a buyer for the Tuxtla region by the government. As in other parts of the country, this attempt on the part of the government to regulate the market and establish a minimum price only succeeded in lowering the price paid to producers, and did not affect the profits taken by the comerciantes like Pretelin. During the 1940's Pretelin purchased an average of 7500 tons of corn and 10,000 tons of beans per annum, which was shipped out of the area to markets in central Mexico.

When the highway was built through the Tuxtla in 1953, Pretelin was one of the first of the local comerciantes to adopt road transport and seek new markets in Lerdo de Tejada, Cosamoalapan, and Veracruz, all now accessible by road from San Andres Tuxtla (Fig. 6). Until this time Pretelin had operated on a smaller scale than Lopez Miranda, Gonzalez or Camacho Aqua, but this development provided an opportunity for expansion. Pretelin purchased three or four trucks and hired buyers to drive directly to ejidos in the district to buy from individual producers or from village traders.

Unlike his contemporaries, Lopez Miranda and Camacho Aqua, Pretelin was not a major importer of merchandise into the region. He was, however, the regional sales representative for 'several' companies including Corona (beer and soft drinks) and Harina de
Veracruz (flour millers). He had agencies in Villa Isla, Rodriguez Clara, Juanita, Acayucan, and San Andres Tuxtla, from which the different products were distributed to surrounding rural communities.

In 1965 Pretelin finally withdrew from trading in foodstaples. Declining local production and increasing intervention by the government in the marketing of foodstaples were the primary reasons for his withdrawal, along with more personal reasons including his age and the death of his son who had assisted in the running of the business. Although semi-retired, Pretelin continues to distribute products for Purina throughout the Tuxtla area. He considers there to be little future in trading in agricultural commodities, and has encouraged his heirs to seek employment in professional fields rather than in commerce.

(2) John Iler: former intermediary buyer, Coyame

John Iler, an American who came to Mexico to join his father, was a buyer for Pretelin during the 1940's. When Iler first came to Mexico in 1940 he rented a small rancho on the southern shore of Lake Catemaco, on land that is now part of the ejido La Marguerita, with the intention of cultivating bananas. After two successive years of failure due to high winds, the spread of the chamusco virus among the plants and a high incidence of malaria among his workers, Iler moved to Coyame (Fig. 7). Here he opened a small factory bottling local mineral water. During this period he began purchasing corn and beans from ejiditarios around the lake on a
part-time basis for Alfredo Pretelin, delivering to the warehouse in San Andres, for which he was received a commission.

After the highway was opened, Iler sold his interest in the bottling plant, moved to Catemaco and began trading on a full-time basis in partnership with Fermin Ortiz, a former itinerant buyer for Lopez Miranda. According to Iler, the level of competition among small scale buyers was high. During the harvest period he drove from village to village until he had a full truck load, and then drove north to Cosamoalapan, or south to Acayucan, Minatitlán or Coatzalcoalcos to sell to wholesalers there.

By the early 1960's declining production of corn and beans together with increasing competition from 'external' buyers had reduced his volume of trade and 'drove him out of the business'. Before withdrawing from commerce, Iler attempted to expand his purchasing area, driving as far north as Puebla in search of supplies. There, as in other parts of Veracruz state, he encountered large numbers of small scale traders merely eking out an existence, living out of their trucks and driving from one ejido to another to purchase corn, and moving from there to nearby towns or wherever demand existed, in search of a wholesaler. In 1965 Iler stopped trading altogether, and now runs a small electrical repair shop in Catemaco.

(3) Antonio Martinez: former intermediary buyer, Catemaco

Antonio Martinez also began trading as an intermediary buyer
for Lopez Miranda. Martinez' family owned land in the *colonia* of La Palma on the northern slopes of the Tuxtla range. During the first years of settlement, several of the colonists obtained a contract to deliver bananas to the Standard Fruit Company, a project that terminated in disaster and bankrupted many of the farmers, including Martinez. To alleviate financial difficulties within the family young Martinez approached Lopez Miranda to obtain a loan with which to open a small store, or *tienda*, within the *colonia*. Martinez retailed merchandise supplied to him by Lopez Miranda, and also purchased corn and beans grown in La Palma and in adjacent communities.

In 1955 following the opening of the highway, Martinez moved to Catemaco, and like Iler and Ortiz began to operate independently, buying and transporting locally grown corn to wholesalers in Cordoba and Veracruz as well as selling in San Andres. However, for reasons about which one can only speculate (since Martinez himself was not forthcoming), he was considerably more successful than the other two buyers, and today is one of the two largest *mayoristas* in Catemaco, distributing corn and beans over the whole of southern Mexico. Martinez manages his business from an office in Catemaco, and has built two large warehouses next to the highway, one kilometre from the town. He buys from *minoristas* in the area, although he himself does not buy directly from producers. His fleet of eight trucks is
used to transport large shipments of corn and beans to other wholesalers in the southern part of the country.

Although in 1975 Martinez was still known as one of the main buyers in the district, he himself claims to have been steadily withdrawing from the grain trade since 1970. This decision was based on three factors: the decline in local production, the rising costs of transportation, and the growing centralization of the market for foodstaples. According to Martinez, the distribution of corn, beans, rice and wheat is dominated by a few large national companies, making it difficult for regional wholesalers to remain competitive.

If there is little profit to be gained in trading foodstaples, cattle ranching has become an attractive proposition. In response to the high domestic demand for beef, stocks of beef cattle have been increasing at a rate of 10.1 percent per annum in the Veracruzan portion of the Papaloapan basin. Having retained his property in the colonia of La Palma, Martinez is in the process of expanding his herd, and considers his future lies in farming rather than in commerce.

While these three traders differ in the nature of their enterprises, scale of operation and relative success, all three appear to have benefitted, initially from the construction of the highway through the region. Pretelin was actually the only one of
the former acaparadores in San Andres Tuxtla to do so, largely as a result of the initiative he took in seeking out new markets and adopting a different means of transportation. The remaining comerciantes in San Andres, namely Lopez Miranda and Camacho Aqua suffered a considerable loss in trade with the opening of the market and the increase in competition. Declining production appears to be a major factor adversely affecting these buyers today, along with increasing competition from other private buyers from outside the area and from the government marketing agency CONASUPO which has expanded its facilities in southern Veracruz since 1970.

Contemporary traders: northern zone

Garcia (4), Hernandez (5), Charmin (6) and Cinta (7) are all contemporary traders who began buying foodstaples after the highway from Veracruz to Acayucan had been built. Garcia is the only mayorista in this group (see Table II(ii)); he is a medium scale wholesaler who operates across the national market network trading corn and beans. With regard to scale of operation, his enterprise is comparable with that of Pretelin, but with respect to the other characteristics his business reflects the changing marketing environment of improved communications and accessibility and a higher level of competition. Hernandez, Charmin and Cinta are all minoristas, buying directly from peasant producers, operating on a relatively small scale and occupying the lowest rung of the
<table>
<thead>
<tr>
<th>Name</th>
<th>Base</th>
<th>Dates of Operation</th>
<th>Market Functions:</th>
<th>Scale of Operation</th>
<th>Self Employed</th>
<th>No. of employees</th>
<th>Full-time/Part-time</th>
<th>Alternative Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Francisco Charmin</td>
<td>Sontecomapan, Cat.</td>
<td>1951 -</td>
<td>- Bulking Agric. commodities: corn until 1965 now fish</td>
<td>Minorista</td>
<td>self employed corn trader, Buyer for fishpacker La Viga</td>
<td>no employees</td>
<td>Part-time</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Cirilo Cinta</td>
<td>Sontecomapan Cat.</td>
<td>1965 -</td>
<td>- Distribution of Merchandise (retailing): corn</td>
<td>Minorista</td>
<td>self employed</td>
<td>no employees</td>
<td>Full-time 3/4 time</td>
<td>Agriculture (Ejiditario)</td>
</tr>
<tr>
<td>Antonio Alvarez</td>
<td>Playa Vicente</td>
<td>1930 Francisco Alvarez opened business</td>
<td>- Money lending: Agricultural credit to local peasants - previously extensive</td>
<td>Mayorista</td>
<td>Family enterprise</td>
<td>10 employees, pilot truckers, clerks</td>
<td>Full-time</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Esteban Borrameo</td>
<td>Playa Vicente</td>
<td>1944 -</td>
<td></td>
<td>Minorista</td>
<td>self employed and also buyer for rice millers La Granja</td>
<td>2-3 employees (clerks)</td>
<td>-</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Abundio Osorios</td>
<td>Abasolo del Valle</td>
<td>1960</td>
<td></td>
<td>Mayorista</td>
<td>Self employed</td>
<td>10 employees, drivers and clerks</td>
<td>Part-time</td>
<td>Part-time now</td>
</tr>
</tbody>
</table>

- Previously coffee, tobacco and corn
- Now only rice
- Previously dry goods and clothing
- Now has pharmacy
- Extensive agricultural and consumption credit
commercial ladder. All are self-employed, although two are also contracted buyers for certain products, and their range of operation does not extend beyond the state of Veracruz. The marketing behaviour of these traders stands in contrast of former intermediaries Iler and Martinez in the period before trucking replaced rail transport.

Julio Garcia: 'mayorista' (wholesaler), Catemaco

Julio Garcia is the third largest buyer in Catemaco today after Antonio Martinez and Carlos Rivera. A younger man than the others, Garcia only began trading in 1963 and does not appear to share Martinez' pessimism of the current market situation. Garcia is a successful mayorista but his marketing behaviour is markedly different from that of Pretelin and other former comerciantes within the region. The latter attempted to maintain control over the regional market through the supply of credit to local producers and intermediary buyers. Garcia has minimal contact with local producers although during the peak harvest season he will send out a truck to buy from ejidos in the district, and has no interest in financing local farmers. He is concerned with the efficient and rapid distribution of supplies of corn and beans to other wholesalers across southern Mexico, particularly to the states of Chiapas, Tabasco and Puebla. He also supplies markets in the cane growing region of central Veracruz: Cosamoalapan, Lerdo de Tejada and San
Francisco. During the months of March and April when foodstaples are in short supply, Garcia imports corn and beans to the Tuxtla region for retail distribution. He himself is not engaged in retailing, however, and in contrast to the earlier acaparadores is relatively specialized, dealing with only two commodities.

The former acaparadores benefitted from the relative inaccessibility of the region and from their control over inter-regional transportation. Garcia on the other hand relies on good communications to provide him with accurate market information, and upon a rapid transportation system. Most of his business is conducted by phone from his 'office', (a chair and a desk in the corner of his warehouse) and he prides himself on being able to meet a demand within twenty-four hours. Unlike many comerciantes who used to stockpile local supplies until the market price rose, Garcia has a rapid turnover, and rarely holds stocks for longer than eight days. His enterprise is steadily expanding, in contrast to that of Martinez.

(5) Daniel Hernandez: village buyer, Zapoapan

Hernandez buys corn on a small scale and on a part-time basis. In 1969, when he moved to Zapoapan de Cabañas, an ejido south of Catemaco, his main interest lay in the coffee trade. Coffee is widely grown at elevations over 500 metres in this zone. As a private buyer, Hernandez transported the beans by truck to a processor in Cordoba. In 1974 INMECAFE, the national coffee marketing agency was formed to regulate the supply and distribution
of coffee and to ensure a higher return to the producer. Hernandez was appointed as a regional buyer for the Catemaco district and now delivers coffee to the INMECAFE beneficios (processing plants) in Acayucan and Covarrubias.

Throughout this period Hernandez, who also owns twenty-five hectares in the adjacent colonia El Aguila, has bought corn and chili peppers from local farmers. While he transports the dried chilies to a wholesaler in Tuxpan (northern Veracruz), he rarely transports corn over any distance, preferring to sell to a buyer at his own door, or to a local wholesaler like Garcia or Martinez. Hernandez has only a pickup truck, which can easily be used to transport a commodity like chili with a high value per unit volume; however, the high transport costs incurred in delivering corn over any distance make the latter an unfeasible proposition.

Hernandez generally buys corn from ejiditarios in Zapoapan de Cabañas in small quantities, often only a few kilos at a time, which he then dries on the floor of his storehouse, and bags for sale. During the harvest season a number of 'outside' buyers enter Zapoapan, (which is located right beside the highway) who prefer to buy in bulk from a trader rather than engage in numerous transactions with individual producers. While Hernandez absorbs some of the profit that might otherwise go to the producer, he provides a local market outlet for ejiditarios who wish to obtain immediate cash for corn.
recently harvested. For Hernandez, who uses the INMECAFE storehouse next to his house to dry and store the grain, trading in corn provides an additional source of income to farming and trading in other commodities. He occasionally gives credit to local peasants, but not extensively, nor does he have any interest in cornering the market.

(6) Francisco Charmin: monopolistic 'minorista', Sontecomapan

Francisco Charmin is a buyer from Sontecomapan, a village in the northern part of the municipio of Catemaco (Fig. 11). From 1951, when he moved from Catemaco to Sontecomapan, to 1965 Charmin was one of a small group of buyers who effectively controlled the market on the northern slopes of the Tuxtla hills due to the relative isolation of the area and the poverty of communications.

The village of Sontecomapan was first established in 1907 at the head of the inlet from the Gulf Coast. The community has since developed as a commercial and service centre for the various ejidos and colonias along the northern slopes of the Sierra de San Martin due to its central position in the area and its location at the junction of several local transportation routes. From Sontecomapan boats leave for the colonia Le Perla del Golfo, and the adjacent ejido of Zapotitlán de Flores Magon, to which there is no overland access. All traffic to the communities to the northwest must pass through Sontecomapan, although beyond this point the road surface deteriorates rapidly, and beyond ejido Balzapote degenerates into
a mere path; the only means of access to Montepio and Ejido Revolución is by foot or on horseback.

In 1951, when Charmin began buying corn and beans from Sontecomapan and the surrounding villages, the journey to Catemaco took from eight to ten hours. Apart from the distance involved, few peasants had their own means of transportation, and had little choice but to sell to a buyer in Sontecomapan. At this time the competition from 'outside' buyers was relatively low, as the majority concentrated their efforts in the southern part of the municipio. In addition, Charmin extended credit to several *ejiditarios*, who were then obliged to deliver their harvested corn to him as a pre-determined price. Charmin was able to purchase corn for as little as $0.30 to $0.35 pesos per kilo, which he took by truck to Catemaco and sold for $0.80 pesos per kilo. Recalling the 1950's, Charmin commented that "production was high, the competition was low, and the profits were good".

Around 1965 Charmin stopped trading in foodstaples, and began purchasing fish. A number of factors led to this decision: the road from Catemaco was widened and resurfaced with gravel which increased the competition from 'outside' buyers who came in during the harvest season, and at the same time agricultural yields began to drop after years of intensive cultivation and depletion of soil
minerals. On many of the colonias in this area, cattle ranching has assumed more importance over the last decade, while in Sontecomapan and La Barra, several ejiditarios have turned to fishing as their main source of livelihood. Charmin is contracted by the fish-packing company, La Viga, in Mexico City, from whom he receives a sum of purchasing capital in addition to being paid one peso per kilo of fish delivered. Charmin has two, five ton trucks, and is supplied with cold storage tanks by the company. Local ejiditarios claim that they receive only 50 percent of the price received by Charmin in Mexico City.

Charmin has obviously adapted to changing market conditions with some success through shifting from one commodity to another. However, the monopoly that he and two other buyers currently enjoy may be shortlived as ejiditarios within Sontecomapan are planning to form a marketing cooperative in order to bypass these middlemen. The Banco Ejidal has agreed to provide a loan to cover the initial overhead investment including transportation, storage facilities and equipment, if the group can obtain a contract to sell to a reliable fishpacking company.

(7) Cirilo Cinta: Peasant middleman, Sontecomapan

Cirilo Cinta is a minorista or minor buyer, who has been involved in trading since 1965. An ejiditario from Sontecomapan, Cinta occupies a position at the lowest level of the commercial hierarchy. Like Iler and Ortiz in their time, he buys directly from
other ejiditarios, driving from house to house to buy from individual farmers, although occasionally he deals with a village trader, although in his own words, "such a practice is not economical".

Cinta with his father and brother began buying corn in 1965, shortly after Charmin began to withdraw from the market, although Cinta claims that by this time the level of competition from traders based in Catemaco had risen markedly. With two trucks, the three members of the Cinta family purchased an average of 100 sacks or 10 tons per day during the harvest from Sontecomapan and the surrounding communities of Dos Amates, Coscuapan, Balzapote, La Palma and Montepio, which they then delivered to wholesalers in Cosamoalapan, Alvarado and Veracruz.

In 1972 Cinta's father and brother were killed in a car accident, and he now operates singlehanded with only one truck. During the harvest he purchases an average six tons per day from ejidos surrounding and including Sontecomapan. The decline in agricultural production is now forcing him to go further afield in search of supplies. He may buy corn as far north as Veracruz, and then drive south to Minatitlán or Coatzalcoalcos in search of a buyer. He rarely sells to a local mayorista as he can usually obtain a better price from an urban wholesaler. If Cinta is contracted to any wholesaler he declined to say so, and appears to sell to a variety of buyers in a number of centres.
As a full-time trader, most of his time is spent 'on the road' and he has little time to devote to agriculture. He relies heavily on his wife's assistance in cultivating the two to three hectares of his ejidal plot to meet their subsistence needs. He cannot afford to hire an assistant driver.

During the late 1960's Cinta extended credit to several ejiditarios in Sontecomapan. However, recently peasant farmers have begun selling to 'outside' buyers who offered a slightly higher price than a local middleman, and repaying Cinta in cash rather than with crops, or else defaulting on payments altogether. Cinta now only gives credit to five ejiditarios whom he considers to be 'trustworthy', and on whom he can rely to deliver a portion of their harvested crops to him. There does appear to be a growing reluctance among middlemen to give credit to peasant farmers, but in the meantime the amount of credit extended by the government has increased: in 1975 twenty-two of the sixty-five ejiditarios in Sontecomapan formed a single sociedad in order to receive credit from the Banco Ejidal.

Cinta originally began trading as a means of supplementing the income he gained from agriculture. His overhead investment is low; he has only one seven-ton truck and no storage facilities. His enterprise provides a steady income, but his business is not expanding. He has no employees and relies on his family's labour to manage his ejidal plot. Although the fish market offers a higher profit than
trading in foodstaples, Cinta prefers to continue dealing in corn, which he regards as less risky, as the market for corn is more stable and the product is not perishable over the short term.

Small scale buyers like Cinta have a limited inventory, and lack the necessary storage facilities in which to stockpile supplies. However, Cinta has a cooperative agreement with Hernandez: if either man receives more corn that he can transport or sell, he will pass it to the other at the price he paid for it. In this way neither passes an opportunity to buy and each is assured of a more stable income. These men also cooperate in the exchange of market information.

**Contemporary traders: Southern zone**

Alavarez (7), Borrameo (8) and Osorios (9) are traders from the municipio of Playa Vicente. Alavarez and Borrameo are based within the pueblo of Playa Vicente, while Osorios is a comerciante in the colonia of Abasolo del Valle (Fig. 11). In spite of the new highway running through the southern part of the municipio, the level of competition from external traders is relatively low compared to that of the Tuxtla region due to the low level of agricultural production within this zone, and the poorly developed communications within the municipio.

All three traders operate on a relatively large scale. With respect to the level of capital investment and size of operation,
Alvarez and Osorios are on a similar level to Garcia and Martinez. The contrast between their marketing behaviour and that of the latter two is a reflection of the different socioeconomic environments in which they operate. Osorios is a trader operating in one of the least accessible parts of the field area, and his marketing behaviour more closely approximates that of Pretelin and the other acaparadores operating in the Tuxtla region in the earlier half of the century than that of the contemporary comerciantes from that area. Borrameo operates on a small scale that the other two (see Table II(ii)). Although the traders in this area are not faced with a high level of competition from outside buyers, the recent decline in the production of foodstaples has forced them to adapt their marketing behaviour accordingly.

(8) **Antonio Alvarez: regional 'comerciante', Playa Vicente**

The Alvarez family have been engaged in trading since the 1930's. Francisco Alvarez opened one of the first retail outlets in Playa Vicente when the pueblo was little more than a large village. He was supplied with general merchandise by Casa Peñagos, a wholesale distributor in Cordoba. Alvarez also purchased corn, beans and rice from local farmers along with two or three other buyers in Playa Vicente. By the 1940's Alvarez is reputed to have cornered the largest share of the market, operating in a similar fashion to the acaparadores in San Andres Tuxtla, although on a somewhat smaller
scale owing to the lower volume of production in this zone. Peasants from nearby villages brought their produce into town on horseback to sell, while foodstaples grown in the more distant villages along the upper reaches of the Rio Manso and Rio de la Lana were generally bulked by an intermediary who then transported the crops to Playa Vicente. The high cost and difficulty of transporting crops from Playa Vicente to markets in central Mexico restricted smaller buyers within the area from operating beyond the boundaries of the municipio, permitting a small group of comerciantes to monopolize trade and dominate the local market system.

Following the construction of the highway, Alvarez began sending trucks out to the ejidos, or to the nearest point along the highway, to collect products. Peasant farmers, once their crop is harvested, will take the bus into town to negotiate with Alvarez or another buyer, and arrange to transport their crops down the side of the road where they can be picked up. Few peasants continue to bring their crops into the town.

Antonio Alvarez (who now runs the business while his father is retired) continues to operate the Tienda de Abarrotes, one of the largest general stores in Playa Vicente supplying both the town population and a number of rural retail outlets throughout the municipio. He is also the regional distributor for Peñafiel bottled beer and soft drinks. While Alvarez continues to buy local corn and
sesame, he has expanded his purchasing area to include the municipios of Catemaco and Rodriguez Clara, partly to compensate for declining production in Playa Vicente, and partly in response to the improved communications network between the interior and coastal regions. During the dry season from March to May when there is a shortage of corn within the municipio, Alvarez sends trucks to buy corn from the irrigated lands of northern Veracruz for local distribution.\(^9\)

Alvarez also has recently begun to buy coffee, most of which is produced on the lower slopes of the Sierra Madre along the Veracruz-Oaxaca border and in the southern part of the state of Oaxaca. In the 1930's and 1940's eight to ten itinerant traders with pack trains of up to thirty mules each were responsible for much of the bulking of coffee grown in this area. The beans were generally shipped down river to Villa Azueta and then by rail for delivery to export companies in Cordoba, Jalapa and Mexico City. Today Alvarez uses a small plane to reach these isolated communities. He has one pilot employed full time who deals with intermediaries in a number of villages between Playa Vicente and Mitla, Oaxaca. Alvarez supplies these village buyers with merchandise, usually on credit, and in return receives coffee. Because few roads penetrate the southern slopes of the Sierra Madre, competition comes mainly from large scale buyers from Jalapa who also send planes into the area to buy from these highland communities.
In comparing Alvarez with contemporary traders in the Tuxtla region, it appears that he has been able to retain a greater degree of control over local commerce, and that while he has taken advantage of modern means of transportation to expand his trading area, his marketing behaviour is more 'traditional' in that he involves in two-way vertical trade (bulking and distribution) and continues to exert a degree of monopoly over the local network. Alvarez claims that he has ceased from providing credit to local peasants since many of them are now receiving credit from the government. However, local peasants insist that while he does not furnish credit to the same extent that his father did in previous decades, Alvarez continues to supply agricultural and consumption credit albeit on a diminished scale.

(9) Esteban Borrameo: part-time trader, Playa Vicente

Borrameo has been engaged in commerce since the early 1940's. Born in Tatahuicapa, a village on the Rio de la Lana, he operated a small coffee beneficio, buying, shelling and drying local coffee, for sale mainly to itinerant traders. In 1944 he moved to the pueblo of Playa Vicente, and has since been involved in the bulking and distribution of a variety of products, although operating on a smaller scale than Alvarez.

Upon first moving to Playa Vicente, Borrameo began buying tobacco for the Compania El Aguiia in Mexico City. During the
Borrameo purchased corn and beans, but since 1965 has shifted to dealing in rice alone. He is contracted as an intermediary to buy for the company of La Granja, and delivers rice to their mills in Tierra Blanca and Cordoba. The company provides Borrameo with sacks and pays him on a commission basis. He also retails the packaged milled rice.

Trading in foodstaples is only a part-time activity for Borrameo, and a means of supplementing income gained from retail distribution and agriculture. During the time he has lived in Playa Vicente Borrameo has operated a general store (dry goods), a clothing store, and currently owns a pharmacy. He also has seventy hectares of land producing corn and rice. By diversifying his investments he reduces the risks associated with concentrating on a single economic activity.

Although he is one of the main buyers within the pueblo, Borrameo deals on a relatively small scale and buys only from within the municipio of Playa Vicente. Ejiditarios may deliver directly to his warehouse, or he may send a truck out to the various communities. Borrameo prefers to buy from individual farmers wherever possible, rather than from an intermediary. Most of the rice from this area is grown on the floodplains of the Rio Playa Vicente and Rio de la Lana, which are more accessible than the upland interior of the municipio.

Borrameo gives credit to local producers, although to a lesser
extent than in previous years. Like Cinta in Sontecomapan, he claims that after receiving credit many ejiditarios fail to honour their commitment to deliver a fixed portion of their harvest, instead selling to a buyer who offers a marginally higher price. (Although few external buyers enter this area, the decline in agricultural production appears to have intensified the competition among local merchants). Much of the credit he extends is in the form of medicines and drugs (consumption credit) which he supplies to peasants lacking the means to make immediate payment, but who offer part of their crop as collateral. Borrameo considers the credit system to be mutually beneficial to both himself and the peasant producer, who would otherwise be unable to obtain the medicine that he requires.

The personal relationship between merchant and peasant producer is one that continues in the southern zone in contrast to the Tuxtla where mayoristas have minimal contact with producers, and where the high number of external buyers have resulted in more anonymous trading relations in the more accessible areas.

(10) **Abundio Osorios: multifunctional middleman, Abasolo del Valle**

Abundio Osorios is a large scale multifunctional middleman based in the colonia of Abasolo de Valle in the central part of the municipio of Playa Vicente (Fig. 11). Abasolo functions as the commercial centre for five other smaller colonias as well as for the ejidos that border it. Osorios has a monopoly on most of the goods
entering and leaving this zone, with the exception of dairy products which are bought by Nestle.

The degree of control exercised by a trader, or comerciante, is directly related to the level of competition from other traders, or the access that producers have to alternative market outlets. The power that a comerciante has to determine the terms of trade is enhanced by performing multiple functions within the community. In the Tuxtlas the development of a dendritic system resulted from the high level of control exercised by a small group of merchants over the flow of goods in and out of the region, their monopoly over transportation and their management of the flow of credit through the market system. While improved communications have undermined the former dendritic structure in the north, the relative inaccessibility of the central part of the municipio of Playa Vicente has helped maintain the dendritic network.

The only access to this area is an unsurfaced, deeply rutted road from Villa Isla to Abasolo del Valle. Another road linking Villa Isla and Playa Vicente, with a branch to Abasolo, has been in the planning stage for several years, and although construction was begun in 1975 only limited progress had been made by the end of the year. The journey by truck from Isla to Abasolo takes three hours during the dry season and longer in the rainy season when parts of the route are flooded.
During the first few years of settlement, two merchants from Isla supplied the settlers with a variety of merchandise and purchased agricultural surpluses, taking advantage of the settlers' dependence on them to give poor terms of trade. In 1960 Osorios opened the first general store within the *colonia* of Abasolo, selling merchandise supplied directly from a wholesaler in Cordoba thereby undercutting the prices of the Isla merchants. Osorios also began buying corn and other foodstaples produced by the *colonos*, at first taking produce to the rail station in Isla on horseback, then later by truck, for shipment to markets in Cordoba and Puebla.

That Osorios was able to monopolize trade within Abasolo del Valle and the surrounding *colonias* is partly due to the low level of competition from other buyers, and partly due to various complementary practices, including usury and political brokerage as well as operating the local transportation system. Osorios extended credit in the form of cash, seeds and merchandise at a time when colonists were attempting to develop their land with very limited capital reserves. Osorios also actively supports one of the two opposing political factions within the *colonia*, as a result of which he is able to exert considerable power within the community. Osorios is an effective socioeconomic and political broker between the local economy and society and that of the nation.
In recent years the production of foodstaples has declined markedly in Abasolo del Valle as in other parts of the municipio as a result of the shift to cattle ranching. During the winter harvest of 1974, Osorios bought only 20 tons of corn, compared to 500 tons in 1960. In response to this trend, Osorios has extended his purchasing area to include the municipios of Isla and Rodriguez Clara where production has increased, and diversified his economic interests so as to lessen his dependence on the foodstaple trade. He has expanded the 'import' side of the business, and now supplies a large number of rural stores throughout the municipio with merchandise, and is the sole distributor of gasoline within the colonia. According to local farmers, Osorios has also invested heavily in land and cattle, and is reputed to hold the titles to over 1500 hectares of land in the colonias of Abasolo del Valle and La Coahuila and to own over 600 head of cattle.

Summary

The above case studies reveal that traders in foodstaples are not a homogeneous group, and that they exhibit considerable variation in both the nature of their enterprise and scale of operation. The main purpose of this chapter was to examine the way in which traders from within the field area have responded to improved communications and changes in land use.
The extension of the national highway network has facilitated movement in and out of the area, and led to the intrusion of large numbers of large and medium scale traders interested in buying foodstaples, particularly corn and beans. The increase in the level of competition from these externally based traders, combined with the general decline in the production of these crops in both northern and southern zones of the field area, has forced local traders to alter their marketing behaviours in order for their enterprises to survive.

In order to compete with national grain distributors, regional comerciantes have become more specialized and concentrated on the bulking and distribution of one or two commodities only. In the Tuxtlas, where competition from outside buyers is high, regional merchants are no longer able to monopolize trade or control the in-flow and out-flow of goods. Many of the former acaparadores went out of business as today success lies in being able to buy and sell grain across the national market network and to respond quickly to regional differences in supply and demand. Access to market information would seem to be a critical factor in the viability of the enterprise.

There is a marked trend towards the separation of retailing and bulking functions, that is of importing and distributing manufactured items and buying local agricultural commodities for sale on the national domestic market. While some retailers
occasionally buy grain, none of the major grain wholesalers today are engaged in retail distribution of merchandise, in contrast to the former acaparadores. In comparison, the marketing behaviour of large and medium scale merchants in the municipio of Playa Vicente more closely resembles that of merchants operating in San Andres Tuxtla before the coastal highway was completed. The former tend to be multifunctional and occupy a more dominant position in the local market system than do the Tuxtla wholesalers. In Abasolo del Valle, which has remained relatively inaccessible, one trader is still able to monopolize the trade links between the community and national economy. Although road access to other parts of the municipio have improved since 1970, the decrease in agricultural production in this zone appears to discourage buyers from other areas from entering this zone.

While the development of the transport and communications network has not been uniform across the field area, declining production of foodstaples is common to both northern and southern zones. In order to compensate for a drop in local supply, many traders have taken advantage of the developing road network to extend the boundaries of their market areas. Even small scale traders operating single-handed with a three ton truck are now driving throughout southern Veracruz in search of suppliers and buyers. Large scale wholesalers in the Tuxtla region no longer just ship grain from southern Veracruz to central Mexico, but are buying and selling
corn and beans across the whole of southern Mexico from Chiapas to Nyarit.

Some local buyers have moved from trading in foodstaples to dealing in other commodities like coffee, chili peppers or fish. As transport costs continue to rise, small scale and medium scale buyers tend to prefer dealing in products with a higher value per unit volume. One may also speculate that as the activities of CONASUPO (the government regulatory agency in the distribution of foodstaples) have increased in this area with the construction of new purchasing centres, the market for these products is more tightly controlled and regional merchants are no longer able to purchase corn at the extremely low prices they were once able to. At least three of the traders interviewed mentioned CONASUPO as a factor in their decision to withdraw from the market in foodstaples.

Many of the former traders have withdrawn from the market altogether. Those who were also importers of merchandise into the region have retained their retail outlets, as this aspect of commerce continues to provide them with a steady income and a certain economic security. It is interesting to note that three of the larger scale traders are currently investing capital gained from commerce in land and cattle, an indication that these regional merchants see little future in the grain trade. Small scale traders continue to operate, not because this is a highly profitable business, but rather because the number of alternatives open to them are limited.
A further change in marketing behaviour is the reduction in the amount of credit extended by middlemen to peasant farmers. At one time, the extension of credit was an integral part of the market mechanism. While this practice continues in the municipio of Playa Vicente, in general it is on a much reduced scale. Unfortunately, there is no statistical information on the flow or volume of private credit within the local economy, but there is a general consensus among both farmers and traders that it is lower than in the early half of the century.\(^{15}\) The amount of official credit extended to peasant farmers by the rural credit banks has increased in recent years, particularly since 1969, but it would seem that the underlying reason for the decline in money lending is the increased risk to private creditors generated by a more competitive market in which there is no guarantee that peasant farmers will repay the debt by delivering their harvest to their creditor.
Chapter Four: Notes


2 Pretelin claims that he used to send out 150 rail cars of corn and 200 cars of beans each year. Each rail car holds approximately 50 tons. As some grain was retained for local distribution this figure is probably a conservative estimate.

3 Pretelin only mentioned these two companies, although insisting that he was the agent for several companies.

4 Fermin began working as a buyer for Lopez Miranda in 1923 when he was only eighteen. He travelled through the municipio of Catemaco with his pack train of four mules, purchasing corn, and taking the sacks to Lopez Miranda in San Andres.

5 Iler's own words.

6 This zone is generally unsuited to banana cultivation due to the seasonal occurrence of winds of extremely high velocity. In addition, the transportation of bananas out of La Palma proved to be extremely hazardous: overland transport was out of the question so that the bananas had to be taken in small boats out from the shore to ships out in the Gulf, during which a large portion of the crop perished.

7 Diagnostico Socioeconomicio de la Cuenca de Papaloapan, 1973, p.94.

8 It is interesting to note that Martinez is not alone in pursuing this particular alternative. Lopez Rodriguez, son of the former comericante Lopez Miranda, while retaining the retail store 'Casa Miranda,' has effectively ceased from buying foodstaples, and has invested a large amount of his capital in land and cattle, and is reputed to be one of the major ganaderos, cattle ranchers, in the region.

9 Although some toñamiel corn is grown in this area on ejidos located along the floodplains, the volume produced is insufficient to meet local demand.
In 1968 the Banco Agropecuario opened a temporary branch in Abasolo del Valle. In 1974 construction began on a new permanent branch in Playa Vicente, which was due to open in November 1975. In the spring of 1975 the various credit banks serving farmers in this area merged to form the Banco de Credito Rural del Golfo, and the new branch if Playa Vicente will be staffed mainly by those employees who have been in Abasolo del Valle.

Between 1944 and 1950 tobacco production was quite high in this area, but since 1950 has fallen to insignificant proportions as the low quality of leaf produced in this zone cannot compete with the high quality tobacco grown in the Tuxtla region where climate and soils are well suited to its production.

The market price for rice in 1975 was $2.50 pesos per kilo. The company La Granja re-sells packaged, polished rice in this zone for $9.00 pesos per kilo.

Transportation between Abasolo del Valle and Isla is provided by Osorios three days per week, using an open top truck, closed on three sides in which up to 20 people remain standing for the three hour journey. The cost is $10.00 pesos one way.

Despite legislation prohibiting the concentration of land of more than 300 hectares under single ownership, the problem of the consolidation of landholdings, or neo-latifundism, is a common one, particularly in the recently settled frontier regions. In many cases money is loaned to peasants to cover land payments, but failure to repay the debt within a given time results in the retention of the title by the creditor. Another common practice is for someone to purchase the land while allowing the original settler to remain on the property. The problem of neo-latifundism is discussed by Stavenhagen (1970, p.233), Siemens (1964a), and Fernandez y Fernandez (1974).

This is corroborated by Cook and Cook (1972) in their research on the organization of trade in the municipio of San Andres Tuxtla.
CHAPTER FIVE
SUMMARY AND CONCLUSIONS

Since the turn of the century, peasant farmers in southern Veracruz have been increasingly integrated into the national economy as producers of foodstaples for consumers in the urban industrial sector, and as consumers of goods manufactured by the latter sector. Agrarian reform legislation and the subsequent creation of the ejido gave peasants control over the means of production as well as the right to dispose of their surpluses as they wished. During the early part of the century, when communications were even more difficult than today, ejiditarios in this area were subsistence rather than commercially oriented, although with the exception of those more isolated communities the majority of peasants have always sold a portion of their harvest. As access to markets has improved producers have become more commercially oriented and many now sell all of their crop, or else retain only a small portion for their own use.

Analysis of the movement of foodstaples sold by the peasant sector reveals that this part of Veracruz supplies the urban markets of central and southern Mexico, with only a limited quantity being distributed within the local area. The local economy is relatively undiversified so that all manufactured items are 'imported' from the urban areas. Thus trade flows tend to be 'vertical' and the spatial
network formed by the movement of products between bulking centres is
dendritic in character.

The thesis put forward here is that the market system in
southern Veracruz has developed in response to a growing demand for
foodstaples from the urban industrialized 'core' of Mexico and with
the improvement of transportation and communication links, although
at the local level the scale and nature of agricultural production
have affected the organization of trade. The changes that have
taken place in the spatial and structural organization of the market
system and the factors responsible for these changes have been
described and analyzed in the preceding chapters and are now
summarized below.

The development of the market system
in southern Veracruz: 1900-75

The basic pattern formed by the movement of products through
a series of exchange centres or bulking points corresponds to that
of the dendritic model developed by E.A.J. Johnson (1970) and des-
cribed by C.A. Smith (1976) in which 'markets' (or exchange centres)
form a linear arrangement that is inclusively vertical and oriented
to a single point outside the agrarian region. Collecting points
at different levels of the system link to several smaller places,
but to only one major high level centre. Flows are direct linking
levels of hierarchies but not the local systems that surround each
level of the hierarchy.¹
The primary factors in the development of a dendritic market system in southern Veracruz are those of external demand emanating from the urban core and improved communications between core and periphery. The particular form of the market network results from the scale and system of rural production. During the nineteenth century, under the hacienda system, the rural economy was based on the cultivation of sugar cane, coffee, tobacco and cotton and on extensive cattle rearing. Agrarian reform resulted in the creation of numerous small scale holdings as the communal ejidos granted to peasants were subdivided into individual parcelas or plots. The resulting agrarian economy was relatively undiversified in character and oriented towards the production of traditional subsistence crops, namely corn, beans and rice. As the same time, the removal of the former land owning aristocracy, who had previously formed the regional elite in control of production and marketing permitted the development of a marketing system in which a new merchant class occupied a dominant position as intermediaries between the urban centres of demand and rural centres of production.

Up until the turn of the century traders had to rely on riverine transportation. The construction of the railroad south through the state of Veracruz during the first decade of the twentieth century provided a stimulus to trade facilitating the movement of goods in and out of the region:
The railroad extended through this municipio (San Andres Tuxtla) in 1913 had the effect of greatly increasing the acreages planted to corn, beans, wheat and rice, tobacco, sugar and some cattle since surpluses could be shipped by rail to other markets.

The disjunction between this relatively efficient form of inter-regional transportation and the primitive means of intra-regional movement was instrumental in the growth of a dendritic system. A series of commercial centres sprang up along the railroad, namely San Andres Tuxtla, Rodriguez Clara, Villa Isla, Villa Azueta, each one forming the hub of a network of trade flows. All trade was funnelled through these regional commercial centres and controlled largely by a small group of comerciantes who monopolized the use of the railroad, and whose sphere of influence extended well into the hinterland regions. Foodstaples produced by small scale farmers within the region were bulked by a chain of intermediaries through a hierarchy of minor commercial centres, often no more than large villages located at junctions in the rural road system. As observed by Appleby, where local transportation has not been developed to the same level as the regional or national network, transport costs tend to consume more of the value of the product, leading to a 'thickening' of the commercial hierarchy towards the lower levels as costs are spread out among a large number of participants.
The distribution of imported merchandise generally followed the same channels, and many of the regional comerciantes also functioned as intermediaries for the large wholesale companies or casas comerciales in urban centres such as Cordoba, Orizaba, Puebla or Veracruz. The multifunctional role of these regional traders increased their power to determine the terms of trade throughout the area, often enhanced by their role as regional creditors. Peasant farmers received seeds and implements on credit, or merchandise from the local store with the crop as collateral.

The market system was more highly organized in the Tuxtlas than in the central and southern zones, and the dendritic network more extensive due to the higher population and higher volume of production. This area was known as 'the granary of Veracruz' reflecting its importance as a major food producing region. In comparison the market networks in the central and southern zones were less developed; much of the undulating grasslands of the San Juan Evangelista plain were devoted to cattle ranching while large section of the southern zone as well as a strip along the Gulf coast remained unoccupied and covered in dense forest.

The arrival of waves of settlers in search of cultivable land during the mid fifties, and the subsequent colonization of the forested interior of the municipio of Playa Vicente and of the northern slopes of the Sierra de San Martin, led to a further extension of the dendritic network. Merchants based in towns along
the railroad seized the opportunity to increase their volume of trade and find new outlets for their wares. However, within a few years of settlement entrepreneurs from within the larger colonias began buying local surpluses and shipping direct to urban markets while importing merchandise from central Mexico for sale to the colonists. These colonias thus became established as independent commercial centres serving surrounding rural communities and farms, reducing the volume of trade handled by merchants in the railroad towns. Comerciantes in the towns of Villa Isla and Juanita suffered particularly from the expansion of trading enterprises in the colonias of Abasolo del Valle and Nuevo Ixcatlán respectively.

The construction of the highway southwards along the Gulf coast from Veracruz was completed as far as Catemaco by 1953, providing access to a number of new markets, particularly to towns along the coast such as Alvarado and Lerdo de Tejada to the north and Coatzalcoalcos and Minatitlán to the south. At the same time, improved communications attracted a large number of outside buyers to the area, competition from whom undermined the monopoly previously enjoyed by the regional comerciantes. Truckers from all over southern Mexico began entering the region during the harvest season, often bypassing the towns of Santiago Tuxtla and San Andres Tuxtla in order to buy directly from small scale traders located closer to the source of production, or in some cases from the farmers themselves.
Meanwhile the shift from rail to road transport gave small scale traders the opportunity to deal directly with urban wholesalers outside the region. Previously, small scale buyers in the Tuxtla region were limited by the high level of capital investment required to ship goods by rail, and had little choice but to sell to one of the comerciantes in San Andrés Tuxtla. With the advent of trucking these buyers were able to transport small quantities of one to five tons for sale in one of the urban centres of demand along the Gulf coast or in central Veracruz. Other sedentary buyers now had the option of selling to one of several itinerant urban-based truckers as well as to a local comerciante.

However, the developments described above were restricted to the northern or Tuxtla zone. Up until the 1970's there was little improvement in the transportation network in the central and southern zones. Rail transport continued to predominate allowing regional comerciantes to retain their control over local trade as competition from external traders was limited.

It is interesting to note that despite the opening in 1972 of a new highway from Tuxtepec to Palomares through the municipio of Playa Vicente, the dendritic network here remains largely unchanged. The inaccessibility of many rural communities combined with a low volume of production in this zone make the area unattractive to external buyers. Although a number of feeder roads have been cut through the forest from the highway to give access to peasant communities, none
of these yet have an all-weather surface and are virtually impassable during the rainy season except to four-wheel drive vehicles. Regional traders in Playa Vicente continue to occupy a dominant position within the local market system.

Within the central zone, the construction of a new highway parallel to the railroad has altered the dendritic structure and increased the level of competition in marketing. The high volume of production on the ejidos in the municipio of Rodriguez Clara that has been achieved through the application of fertilizers to formerly uncultivated land attracts a large number of buyers to the area from all over southern Mexico. While some truckers go directly to the source of production to buy, others rely on the services of local 'coyotes', small scale independent traders who often have only a pickup truck, to provide them with corn that is already bulked. Although the price may be marginally higher than that on the ejido itself, the truckers are saved the additional costs of numerous transactions in an area where the rural road network is unsurfaced and ejidos dispersed over a wide area.

The formation of a dendritic market system in southern Veracruz is largely a result of 'external' demand for foodstaples from the major population centres in central and southern Mexico. Marketing channels are organized to facilitate the movement of goods between rural and urban centres. The location of exchange points or bulking centres is directly related to the transportation network. Improve-
ments in communications have emanated from the more highly developed 'core' area of the country, frequently creating a disjunction between a more efficient, less costly inter-regional transportation system and a less efficient more primitive intra-regional system. The relatively higher cost of transportation per unit volume at lower levels of the commercial hierarchy tends to produce further branching of the market network as costs are spread out among a larger number of participants in a series of minor centres. Improved transportation between core and periphery have led to the penetration of the area by merchants based in urban centres outside the region whose presence has adversely affected the business of some of the large scale traders within the region. However, external buyers appear reluctant to enter communities where the volume of production is low or where access is particularly difficult, and local traders continue to occupy a dominant position. The question remains as to how significant such changes have taken place in the spatial and structural organization of trade actually are, and whether or not the marketing opportunities for peasant producers have increased.

The impact of changes in the market system on peasant producers

Peasants interviewed within the research area considered their situation with respect to marketing opportunities to have improved
marginally since the construction of highways through the area. Generally it is easier to dispose of surpluses as the number of buyers has increased and access to their communities has improved. Whereas previously, farmers had to take their crops on horseback to the nearest town or exchange centre, now buyers come directly to the village with trucks.

In the more accessible communities to which a larger number of buyers are attracted, peasant producers are able to choose between one of several buyers. Ejiditarios in the central zone claim that they now sell to the highest bidder, or 'el mejor postor'. They consider their bargaining position to have improved, particularly with the increase in the amount of official credit available. Previously, the majority of farmers received private credit from a local middleman with the obligation to deliver their harvest to him in return. In addition, better communications enable peasants to receive more market information than before, particularly concerning market prices and market conditions throughout the area, making them less susceptible to cheating on the part of traders.

However, despite these minor changes, the organization of the market system is such that the market opportunities for small-scale peasant farmers are limited and the price that peasants receive for their crops remains below the official guaranteed minimum price set by the government marketing agency, CONASUPO.
Prices received by peasant farmers

Research conducted in the municipio of San Andres Tuxtla in 1966 indicates that the prices received by ejiditarios for each of the four main foodstaples were below the official market prices (see Table III).

TABLE III Market prices for foodstaples, San Andres Tuxtla*

<table>
<thead>
<tr>
<th>Crop</th>
<th>Support price (guaranteed minimum) pesos per kilo</th>
<th>Price received from middleman pesos per kilo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>0.94</td>
<td>0.69 - 0.84</td>
</tr>
<tr>
<td>Beans</td>
<td>1.47</td>
<td>1.17 - 1.27</td>
</tr>
<tr>
<td>Rice</td>
<td>1.00</td>
<td>0.85 - 0.90</td>
</tr>
<tr>
<td>Wheat</td>
<td>0.91</td>
<td>0.79 - 0.80</td>
</tr>
</tbody>
</table>

*Source: Cook and Cook (1972) "Organization of Trade in One Tropical Municipality of Veracruz, Mexico", p. 59
TABLE IV  Average prices received for corn by farmers -

pesos (per kilo)*

<table>
<thead>
<tr>
<th>Ejido/Colonia</th>
<th>December 1974</th>
<th>June 1975</th>
<th>October 1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hopalapan</td>
<td>1.60 - 1.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Blanco</td>
<td>1.60 - 1.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casas Viejas</td>
<td>1.60</td>
<td>2.20</td>
<td></td>
</tr>
<tr>
<td>Col. Dominguez</td>
<td>1.70 - 1.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playa Vicente</td>
<td>1.60 - 1.70</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>La Victoria</td>
<td>1.60 - 1.70</td>
<td>2.20</td>
<td>2.00</td>
</tr>
<tr>
<td>El Nigromante</td>
<td>1.50 - 1.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Arenal</td>
<td>1.60 - 1.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Cristobal</td>
<td>.80 - 1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ec. Zapata</td>
<td>1.50</td>
<td></td>
<td>1.50</td>
</tr>
<tr>
<td>La Ceiba</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Tomate</td>
<td>1.50</td>
<td>2.00</td>
<td>1.50</td>
</tr>
<tr>
<td>San José</td>
<td>1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sta. Teresa</td>
<td>1.50</td>
<td></td>
<td>1.75</td>
</tr>
<tr>
<td>Arroyo Sta.Maria</td>
<td>1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. Ixcatlan</td>
<td>1.50 - 1.80</td>
<td>2.00 - 2.50</td>
<td></td>
</tr>
<tr>
<td>Abasolo</td>
<td>1.50 - 1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Coamilla</td>
<td>1.40 - 1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eden de las</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flores</td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lealtad Muñoz</td>
<td>1.50</td>
<td></td>
<td>1.50 - 2.00</td>
</tr>
<tr>
<td>La Perla del</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golfo</td>
<td></td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Zapotitlán</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montepio</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Revolución</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balsapote</td>
<td>.90 - 1.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sontecomapan</td>
<td>1.70 - 1.80</td>
<td>2.00 - 2.50</td>
<td>1.50</td>
</tr>
<tr>
<td>Zapopan</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Victoria</td>
<td>.90 - 1.50</td>
<td>1.90 - 2.50</td>
<td></td>
</tr>
<tr>
<td>La Marguerita</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tilapan</td>
<td>1.40 - 1.60</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>Comapán</td>
<td>1.50</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Salto de E.</td>
<td>1.50 - 1.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rincon. Z.</td>
<td>1.60 - 1.70</td>
<td>2.20</td>
<td></td>
</tr>
<tr>
<td>La Candelaria</td>
<td>.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dos Amates</td>
<td>.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vista Hermosa</td>
<td>1.00</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Cozcuapan</td>
<td>1.60</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Benito Juarez</td>
<td>1.20</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>Mario Souza</td>
<td>1.50</td>
<td>2.40</td>
<td></td>
</tr>
<tr>
<td>Juan Seco</td>
<td>1.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ojoxapan</td>
<td>1.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Laurel</td>
<td>1.70</td>
<td>2.10</td>
<td>1.80</td>
</tr>
</tbody>
</table>

*Sources: Comisariados of ejidos
Comite Regional Campeino, San Andres Tuxtla
Since 1966 the situation has remained unaltered; prices paid to peasant farmers continue to fall below the guaranteed minimum price. Table IV indicates the average price received for corn on ejidos and colonias within the field area during the year from 1974 to 1975. The official guaranteed price for primavera (spring sown) corn harvested between November 1974 and January 1975 was $1.74 pesos per kilo. While the market price reached $1.80 pesos on a few ejidos, most farmers received less, and in the more remote communities corn fetched as little as $0.90 pesos per kilo. The official price for toñamiel corn, harvested between April and June, was $2.00 pesos per kilo due to the general scarcity of supply at this time of year throughout the country. Local prices often rise above the guaranteed minimum during the summer months indicating consumer preference for local white corn over the imported yellow variety, but only those ejidos located on the floodplains with irrigation water available to them are able to cultivate a second crop.

In September 1975 the market price was set at $1.70 pesos per kilo for the forthcoming harvest. The high price received on some ejidos in October reflects the low supply at the time as the main harvest was not gathered until November of December. At the same time 'green' corn (not fully ripened) entering the market tends to sell at a low price. Overall, prices reflect the demand and tend to
Corn prices 1974-75

Average prices received per kilo (pesos)

- 0.80-0.99
- 1.00-1.19
- 1.20-1.39
- 1.40-1.59
- 1.60-1.79

FIGURE 12 - Average prices received for corn by local peasants during the winter harvest 1974-75. (Source: Fieldwork 1975).
decline with distance from the highway, the lowest prices being received by farmers along the northern slopes of the Tuxtla range and in the central and southern part of the municipio of Playa Vicente (Fig. 12).

Why do farmers sell below the guaranteed minimum?

A study conducted in three municipios in the state of Veracruz in 1966 indicated that at that time 72.6 percent of the ejiditiarios interviewed sold their crops to a private buyer and only 2.9 percent sold to CONASUPO (see Table V).
### TABLE V  Marketing Practices of Farmers in 18 municipios in Veracruz, 1966-7*

<table>
<thead>
<tr>
<th>Market</th>
<th>Large scale private - %</th>
<th>Small scale private - %</th>
<th>ejiditarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not sell</td>
<td>55.7</td>
<td>4.2</td>
<td>9.6</td>
</tr>
<tr>
<td>Private sector</td>
<td>35.3</td>
<td>58.1</td>
<td>72.7</td>
</tr>
<tr>
<td>Conasupo</td>
<td>4.5</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Banco Agricola</td>
<td>0.9</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Banco Ejidal</td>
<td>0.0</td>
<td>0.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Other</td>
<td>1.4</td>
<td>2.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Private &amp; Conasupo</td>
<td>1.8</td>
<td>0.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Private &amp; B.E.</td>
<td>0.0</td>
<td>0.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Private &amp; Other</td>
<td>0.4</td>
<td>0.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

*Source: Estructura de Sector Agricola en Veracruz: Encuesta en 18 municipios (1969) Table 58, p.132 (Appendix V)

Of those peasants interviewed during the course of this research, the majority indicated that they usually sold to the private sector with the exception of those ejidos close to one of the CONASUPO reception centres. According to the regional director of CONASUPO San Andres Tuxtla, approximately 30 percent of local production is bought by the government. However, it is not known what percentage of this is delivered by ejidatarios, by private farmers or by intermediaries.
The low percentage of ejiditarios selling to the government in the years before 1970 can be partially explained by the lack of reception centres in the region. In 1960 there were only seven ANDSA warehouses (Almacenes Nacionales de Deposito S.A.) in the state of Ceracruz, of which only one was located in the southern portion, in Acayucan. Since 1970 seven CONASUPO warehouses or Bodegas Rurales have been built in rural locations within the area designated for research, six of which are actually located adjacent to ejidos, as part of the CONASUPO program to decentralize its operations (Fig. 7). In spite of this expansion of facilities, the majority of peasants continue to sell to private buyers and not to the government.

A number of factors appear to be responsible for this decision, including the cost and inconvenience of transporting crops to the reception centre, the various regulations imposed on sales by the government, and a general mistrust of government officials on the part of peasant farmers. Lack of transportation is one of the major obstacles facing ejiditarios, who are responsible for delivering the crop to the reception centre themselves. Those who wish to sell to the government must hire a grain deliverer (a driver and truck as few are able to drive themselves) to transport the corn to the warehouse, the cost of which ranges from five to fifteen centavos per kilo depending on the distance involved.
In order for a seller to receive the full guaranteed minimum price for his crop the grain must meet the standard CONASUPO requirements: the corn must be free of odor, have a moisture content of less than 18 percent contain not more than 2 percent impurities and be free of disease. A discount is made on any grain that is below standard. Much of the local corn, particularly that grown in the Tuxtla region where rainfall is high, has a moisture content of 20 percent or more. Also many peasants are anxious to receive an early return on their harvest and cut the corn before it is fully ripened and dried.

In addition, the seller must be able to certify that the land on which the crop was grown belongs to him and be able to provide some personal identification. In practice many peasant farmers do not hold certificates to their land; plots are often transferred, rented or even subdivided within the ejido. Also the corn must be delivered in new, standard size henequen sacks. These sacks are available from CONASUPO, but a deposit of $5.00 pesos per sack is required. Payment for the goods received is made by cheque which is only negotiable at a branch of the Banco Ejidal in Loma Bonita, or of the Banco Agropecuario in San Andres Tuxtla. Finally, the reception centres does not open until well into the harvest season, and even then opening hours are limited and may be irregular.
These factors combine to reduce the net price received by the farmer if he chooses to take his crop to the CONASUPO reception centre. Many peasants consider it more convenient and less risky to sell to a private buyer 'at the farm gate' who accepts the corn as it is, buys small quantities, and pays cash. Many buyers also provide both sacks and shelling equipment. For these reasons peasant farmers are willing to sell for a price below the guaranteed minimum.

The structure of the market system is such that the small scale peasant farmer is at a considerable disadvantage compared to the medium or large scale farmer. The majority of ejiditarios sell either to a resident buyer within the village or to one of the minoristas who drive from village to village with a small truck in search of supplies. Large scale buyers are rarely attracted to communities where they have to engage in numerous small scale transactions although a trucker may buy directly from a village trader who has already bulked several tons. The small scale buyer, knowing the price he can expect to receive from a wholesaler or from the CONASUPO reception centre, will lower his buying price accordingly in order to realize a profit from the transaction. Meanwhile the peasant farmer is hampered not only by his lack of a means of transportation, which would give him access to alternative market outlets, but also by his lack of capital reserves or storage facilities. He is obliged to sell during the peak harvest season.
when supplies are plentiful and when the market price is at its lowest in order to realize a quick return for his crop, pay his debts and meet his subsistence needs. Only those few peasants who have been able to accumulate sufficient capital to purchase a small truck are able to bypass the small middlemen, and those few have often turned to trading themselves.

The role of the market system in development

Development of underdevelopment

The market system not only facilitates the exchange of goods but also articulates the different sectors of the economy. During the twentieth century, peasants in southern Veracruz have been increasingly integrated into the national economy as producers of foodstaples for urban markets. The peasant sector has become more commercially oriented: now most farmers sell all of their crops. Many peasants have begun cultivating other cash crops in the hope of increasing their net returns. Although the range of crops produced is broader, there has been limited diversification of the agrarian economy except for the establishment of some agricultural processing industries. Dependency on 'imports' to the region has increased, including both manufactured items and foodstuffs. Foodstaples are frequently in short supply, and have to be brought in by local merchants from other parts of the country at a high cost to the peasant consumer.
There is at present little evidence to suggest that integration of the peasant sector into the national economy has benefited the farmer in economic terms. Rural poverty persists throughout most of the region. Only one or two of the ejidos visited exhibited signs of material progress, those being the larger ejidos, particularly Nopalapan, in the central zone where the land is being worked cooperatively and economies of scale are being realized. Further research is required on the movement of capital through the market system in order to test the hypothesis that increasing integration of the peasant sector is leading to a transfer of resources from the periphery towards the centre, and that the profits from agriculture are being absorbed by the 'modern' sector rather than by the peasant sector.

The persistence of small scale intermediaries

The lack of change within the market system and the persistence of small scale traders within southern Veracruz despite improved communications between core and periphery presents an explanatory challenge. Contrary to traditional development theory, the strengthening of communications and commercial linkages between sectors has not led to the transformation or elimination of the traditional sector. The proliferation of small scale traders and continuation of the peasant mode of production in agriculture indicates that the penetration and incorporation of rural areas tends to maintain rather than dissolve the 'dual' economy.
The state in Mexico plays a critical, if controversial, role in the maintenance of small scale agricultural holdings. Peasant farmers are protected by the constitution which prohibits the alienation of ejidal lands. In northeastern Brazil, where there is no such legislation, high urban demand for foodstaples has led to the commercialization of the market system and subsequent consolidation of land into large scale holdings. There has been a considerable rationalization of the market system with a reduction in the length of the chain of intermediaries as wholesalers go directly to the farm to buy in bulk. In southern Veracruz large scale traders find it uneconomic to engage in numerous small transactions and appear reluctant to deal directly with peasant producers, particularly where access roads are poor. State protection of peasant holdings creates a niche for small scale traders who are willing to fulfil a vital service function as intermediaries between producers and wholesalers.

However, the prevalence of a large number of small scale agricultural holdings only partially explains the existence of large numbers of small scale intermediaries who operate with low profit margins and with limited capital resources. The basis for the proliferation of small middlemen in the regional market system of the valley of Oaxaca hypothesized by Cook and Diskin appears to apply in southern Veracruz: "if the present trend toward high unemployment and underemployment in the urban industrial sector of
the Mexican economy continues, then other things remaining equal, the depeasantization and proletarianization of the rural valley of Oaxaca population will become less intense, but the volume of traders and commodities circulating through the marketing system will expand.¹²

The growth and expansion of the 'modern' sector of the economy is based upon the substitution of capital for labour, and although this may increase productivity in this sector, it does not generate sufficient employment opportunities to absorb the growing labour force in rural and urban areas. As a result people are forced to engage in several occupations to make ends meet. In southern Veracruz, as in other parts of central and south America, trading provides an additional source of income for many.¹³ Most of the small scale middlemen interviewed during the course of research had at least one alternative occupation, and several traders operated on a part-time basis only. Dealing in foodstaples remains an option as the capital requirements for entry into trading on a small scale are small; the highest requirement being the rental or purchase of a vehicle while the main input is labour.

Directions for further research

The role of the middleman in development

Further research is required on the role of the middleman as an instrument of articulation of different sectors of the national
economy. Mintz (1956, 1959, 1964), Hart (1969) and Bauer (1954, 1971) have stressed the useful role played by small scale intermediaries in providing a low cost, efficient service. However, it seems important to examine the role of these middlemen in the context of the broader national market system, and their financial and functional relations with traders operating at higher levels of the commercial hierarchy. Research in southern Veracruz indicates that while some of the medium size trading enterprises at the regional level are suffering from competition from urban based wholesalers, small scale enterprises continue to proliferate. The question to be asked, in the light of reports of increasing centralization of the grain market, is to what extent does the existence of a mass of small scale middlemen contribute to the survival and prosperity of a limited number of large scale wholesalers? Do policies which favour the development of the 'informal' sector merely preserve the existing dualistic economic structure?

In examining the form and structure of the market system in southern Veracruz, I have only dealt with what is in effect a sub-system of the national market system. Little information is currently available concerning the structure of the national market system, the nature and size of enterprises operating at different levels of the commercial hierarchy, or of the linkages between each level.
Improved marketing opportunities for peasant farmers

The results of this study indicate that the existing market system constrains the marketing opportunities for peasants. In order to ensure higher returns to those producers and a more equitable distribution of income further research should be directed towards the formation of policy alternatives which will improve marketing opportunities. These might include a strengthening of government activity and extension of credit and technical assistance to farmers as well as an improvement of the services and facilities of the government marketing agency. The development of peasant cooperatives offers another solution. The Mexican government is already encouraging ejidatarios to form cooperatives in order to increase the scale of agricultural production and enable them to take advantage of more efficient marketing channels, although so far this scheme has met with limited success in southern Veracruz. Further work in applying cooperation is needed, as the principles of cooperation and methods of accumulating capital that have worked in the developed countries are not necessarily the appropriate ones for Third World countries.

In conclusion, this study has indicated that there is a growing need for the study of the manner in which rural regions are incorporated into the national economic system. The role of the state, of transportation and communication links and of growing urban demand for products from the rural sector are clearly important. It is through studies such as this of southern Veracruz that these
broader research questions can be explored.
Chapter Five: Notes


2 Cook and Cook, 1972, p. 3.

3 This was corroborated by Cook and Cook (1972, p. 3) who state that "...the railroad likewise fostered domination of two or three large grain buyers who, though monopolistic, furnished credit to local farmers".

4 Appleby, 1976b, p. 294.

5 According to Cook and Cook (1972, p. 33): "The railroad extended through this municipio in 1913 had the effect of greatly increasing the acreages planted to corn, beans, wheat and rice, tobacco, sugar and some cattle since some surpluses could be shipped by rail to other markets".

6 Cook and Cook, 1972, p. 59.

7 According to Juré Cejin (1970), in the state of Aguascalientes, Mexico, during the winter of 1968-69, Conasupo bought between 20 percent and 50 percent of the total production of corn, but of this, 50 percent was delivered by intermediaries and only 50 percent by producers themselves.

8 The seven ANDSA warehouses in the state of Veracruz were located at Panuco, Tihuatlan, Martinez de la Torre, Cruz Blanca, Cardel and Acayucan. At this time ANDSA had a total of 112 warehouses distributed throughout the country with a storage capacity of 3½ million tons (Fernandez y Fernandez, 1961, p. 223).

9 Further details concerning national policy regarding marketing and the role of the various government organs regulating the supply and distribution of foodstaples and market prices are to be found in Fernandez y Fernandez, (1961), Reyes Osorio (1974), and Alisky (1973).
At the time of field work there were three pineapple canneries in Villa Isla, two cigar manufacturing companies in San Andres Tuxtla, and one pineapple and chili cannery under construction in Rodriguez Clara.


Cook and Diskin, 1976, p. 297.

For example, in the Bolivian Yungas where land reform in 1952 gave peasants control over the means of production and the right to market their own produce, coffee trading has become a source of income for a wide variety of people: "During the coffee season,...everybody, including campesinos, truck drivers, store owners and artisans buys and sells coffee...". This situation is closely related to an occupational structure of underemployment. The small scale peasant holder, the chola store owner, the independent artisan whose work is becoming more and more dispensable due to widespread consumption of manufactured goods, all of them are forced to engage in several occupations to make ends meet. In Coroico, coffee dealing is the obvious choice". (Muratorio, 1973).
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B. Government Publications


C. Unpublished Materials


APPENDIX 1
FIELD METHODS

I. Background

Field work for this thesis was undertaken in 1975 supported by a summer research grant from the University of British Columbia. The author spent sixteen weeks in the field, from the beginning of July until the end of October, based in the town of Villa Isla, Veracruz. Apart from two trips, one to Mexico City and one to Jalapa, made for the purpose of bibliographic research and interviews with government bureaux, the time was spent conducting interviews in the towns of San Andres Tuxtla, Catemaco, Villa Isla, Rodriguez Clara and Playa Vicente, and in surrounding rural communities, including both ejidos and colonias (Appendix 2).

The initial purpose of the research was to study the way in which the form, structure and function of the local market system impeded socioeconomic development in the peasant sector, and to analyze the role played by local middlemen in the rural economy and the mechanisms whereby the capital generated by the sale of agricultural surpluses is siphoned off towards the urban-industrial (modern) sector of the economy. However, this topic proved to be too broad given the limited time and funds available and the lack of a field assistant or means of transportation. I had hoped to directly observe the sale of crops produced by the peasant sector
and the process of exchange between producer and middleman; 
unfortunately the four months in the field fell between the two 
anual corn harvests which occur in May - June and November - 
January, so that this proved to be impossible. In addition these 
four months coincided with the rainy season, during which many 
rural roads became impassable thereby restricting access to several 
communities. The high run off also led to the inundation of the 
floodplains of the San Juan and Playa Vicente-Tesechoacan Rivers so 
that passage across these rivers was suspended for a period of 
time during the month of September.

Given the situation, I decided to narrow my focus to a 
description and analysis of the historical development of the market 
system for foodstaple crops produced by the peasant sector. This 
decision was made on the basis of information gathered during the 
first few weeks of field work which indicated that a series of 
changes in both the spatial organization of the market system and in 
the marketing practices of local traders had taken place since the 
early days of agrarian reform. It seemed critical to gain an 
understanding of the way in which the market system had changed and 
of the primary factors responsible for the change, before any attempt 
could be made to assess the impact of the market system on regional 
development.
II. Methodology

As the primary objective was to discover the way in which the spatial and structural organization of trade in locally produced foodstaples had changed in the period following agrarian reform, an inductive method of inquiry seemed to be the most appropriate.

Information concerning the development of the market system was gathered from two main groups of participants: peasant producers and local traders. Supplementary data was obtained from a variety of people living within the research area including private farmers and ranchers, members of local (municipio) government, representatives of state and federal governments, agricultural inspectors and managers of the rural credit banks (namely the Banco Ejidal and Banco Agropecuario), the director and assistants of the government marketing agency Conasupo as well as members of the community. The boundaries of the research area were extended to include the municipios of Santiago Tuxtla, San Andres Tustla, Catemaco, Rodriguez Clara, Isla and Playa Vicente so as to be able to trace the development of market networks in an area large enough to analyze the interplay of different variables influencing the market system.

In accordance with the inductive approach, no set questionnaires were administered; instead interviews were conducted with members of each of the groups mentioned above and questions directed towards specific areas of interest. Initial plans to record all interviews were abandoned as the presence of a tape recorder appeared to inhibit
the interviewee and restrict the gathering of information.

III. Data gathering: Selection procedures

A. Peasant producers

The peasant sector was taken to include both _ejiditarios_ and _colonos_. My intentions were to visit as many communities as possible within the time available in order to obtain a broad regional perspective on marketing practices and peasant participation in the market system, to select villages where the production of foodstaples was significant, and to ensure that the sample included communities with varying ease of access as transportation was considered to be a critical factor.

The selection of a sample of _ejidos_ and _colonias_ was not based on any rigorous sampling design, but resulted from the opportunities that arose to visit particular communities. Lacking my own transportation I had to rely on public transportation (which is very limited in the rural areas) and the generosity of a number of officials whose business took them out into the rural areas and who were willing to let me accompany them. Access to most of the villages (listed in Appendix 2) was gained through accompanying one of the agricultural inspectors on their rounds.

Gathering of information within villages

Because of the large number of communities visited, the time spent in each was necessarily limited, ranging from two hours to two days with one or two exceptions. The length of stay was largely
determined by the available transportation to and from the community.

Within each community I interviewed two or more representatives who appeared qualified to speak for the rest of the members. Invariably this included the Comisariado Ejidal or the Presidente de la colonia, (the elected head of the village council) and his deputy or treasurer. In some cases I chose also to interview an older member of the community considered to be both knowledgeable and responsible in relating information. While it would have been preferable to interview a broader sample of peasant producers, given the time limitation I assumed that those individuals elected by the community would be able to provide reasonably accurate information and would have a higher level of knowledge of socioeconomic data. I also relied on letters of introduction from the officials of the municipio to the village councils to explain my presence and to allay fears concerning the nature of my research. This introduction proved invaluable in gaining access to information and in being granted interviews as there exists a high level of mistrust among many peasants of outsiders in general.

During interviews with peasant farmers questions were addressed to the following areas:

- History of settlement of the community, origins of inhabitants, recent developments in the community (general);

- population data;

- land use: Size of ejido, size of individual plots, area under cultivation, crops grown, amount of land cultivated by individual farmers, methods of production, productivity (yields per hectare);
- historical change in land use;
- transportation: Means of access to village, condition of route, type of transport available, time and cost of transport, access to means of transport (availability);
- credit: Sources and extent of credit to peasants, history of credit;
- marketing: Percentage of harvest sold, to whom sold (village buyer, regional buyer, external buyer, Conasupo), relationship with buyer, location of exchange, selling price, time sold, general changes in marketing practices (including problems and perceived improvements).

In addition, observations were made with regard to the level of development in the community, standard of living, modern facilities, agricultural practices, transportation facilities. Wherever possible, information gathered in interviews was corroborated by other sources.

B. Local Traders

The identification of major traders or comerciantes, within the area proved relatively easy as these individuals are well known throughout the area. However, many of those who engage in trading on a part-time or temporary basis are not known as 'traders' by other members of the community. The latter were identified by asking "Quien compra semillas?", or "Who buys grain?"

Twenty-three traders were interviewed from a total of forty whom I attempted to contact. The remainder either refused to grant an interview, or were unavailable at the time. Of the twenty-three the majority were reluctant to divulge much information concerning
the nature of their enterprise or the scale of their operation. The names and bases of traders interviewed are listed in Appendix 3.

The group of traders was not selected on a representative basis, although an attempt was made to interview as many traders as possible within different parts of the research area and to include traders operating at varying scales and varying levels of the commercial hierarchy. The selection of traders was largely based on their availability and willingness to cooperate. The sample is biased towards the large scale, permanent, full-time trader who proved to be more accessible than the small-scale, part-time trader. The latter tend to be based in rural locations dispersed throughout the area, and were therefore more difficult to contact, particularly as much of their time is spent 'on the road'.

During interviews with traders, questions were addressed to the following areas:

- History of enterprise, length of time involved in trading;
- area of operation, buying and selling areas, trading partners;
- market functions performed: Bulking, distribution, transportation, storage;
- products traded;
- scale of operation; volume of trade, general size of enterprise, storage and transportation facilities, employer/employee;
- provision of credit to peasant producers, form of credit;
- changes in enterprise, future projections;
- alternate occupations.
In most cases further information concerning the activities of these middlemen was gathered from secondary sources within the area, including peasants, other traders, local officials, private farmers and other members of the public.

C. Consistency of Data

Given the limited time available, I was unable to pay a second visit to more than a few of the villages in the area. Likewise, traders were reluctant to grant me a second interview. The quality and quantity of information received varied considerably according to the knowledge of the informant, the time available for questioning, and his willingness to answer the questions. Individuals tended to stress different topics, and due to the informal nature of the interview this led to some inconsistency in the amount of data gathered for each category of question.
APPENDIX 2
RURAL COMMUNITIES VISITED DURING FIELDWORK

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<th>STATUS</th>
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APPENDIX 3
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*Traders used as case studies in Chapter Four.
AVERAGE SIZE OF EJIDAL PLOTS IN TUXTLA REGION*

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*Source: Comite Regional Campesino, San Andres Tuxtla, Veracruz
### APPENDIX 4 (cont'd)

#### AVERAGE SIZE OF EJIDAL PLOTS IN TUXTLA REGION

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## Market Outlets for Farmers in 18 Municipios of Veracruz

**Based on 1966 - 67 Survey**

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<th>Person or Institution</th>
<th>Large scale</th>
<th>Small scale</th>
<th>Total</th>
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<td>No. %</td>
<td>No. %</td>
<td>No. %</td>
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<td>6153 55.7</td>
<td>34 4.2</td>
<td>6187 52.2</td>
<td>2034 9.6</td>
<td>8221 24.9</td>
</tr>
<tr>
<td><strong>Private buyer</strong></td>
<td>3897 35.3</td>
<td>712 88.1</td>
<td>4609 38.9</td>
<td>15414 72.7</td>
<td>223 60.6</td>
</tr>
<tr>
<td><strong>Conasupo</strong></td>
<td>499 4.5</td>
<td>233 2.9</td>
<td>522 4.4</td>
<td>617 2.9</td>
<td>1139 3.5</td>
</tr>
<tr>
<td><strong>Banco Agricola</strong></td>
<td>102 0.9</td>
<td>0 0.0</td>
<td>102 0.9</td>
<td>105 0.5</td>
<td>207 0.6</td>
</tr>
<tr>
<td><strong>Banco Ejidal</strong></td>
<td>6 0.0</td>
<td>6 0.7</td>
<td>12 0.1</td>
<td>758 3.6</td>
<td>770 2.3</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>117 1.4</td>
<td>17 2.1</td>
<td>164 1.4</td>
<td>1035 4.9</td>
<td>1199 3.6</td>
</tr>
<tr>
<td><strong>Private buyer and Conasupo</strong></td>
<td>194 1.8</td>
<td>0 0.0</td>
<td>194 1.6</td>
<td>362 1.7</td>
<td>556 1.7</td>
</tr>
<tr>
<td><strong>Private buyer and Banco Ejidal</strong></td>
<td>0 0.0</td>
<td>4 0.5</td>
<td>4 0.0</td>
<td>530 2.5</td>
<td>534 1.6</td>
</tr>
<tr>
<td><strong>Private buyer and others</strong></td>
<td>46 0.4</td>
<td>12 1.5</td>
<td>58 0.5</td>
<td>336 1.6</td>
<td>394 1.2</td>
</tr>
<tr>
<td><strong>Total who sell</strong></td>
<td>4891 44.3</td>
<td>774 95.8</td>
<td>5665 47.8</td>
<td>19157 90.4</td>
<td>24822 75.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>11044 100.0</td>
<td>808 100.0</td>
<td>11852 100.0</td>
<td>21191 100.0</td>
<td>33043 100.0</td>
</tr>
</tbody>
</table>

*Source: Gonzalez Romero, Vicente et al. Estructura del Sector Agricola en Veracruz, Encuesta en 18 Municipios ENA, Chapingo, Mexico, 1969 Table 58, p.132*