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Social and Spatial Issues in Rural Marketing Systems

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# INTRODUCTION

For many years, social scientists have been aware of the descriptive and analytical utility of defining a regional context within which to observe processes of social and economic change. The pioneering work of Christaller (1966) and Losch (1954) posited that a systematic, predictable relationship exists between the spatial arrangement of a regional market system, patterns of land use by the populations within the region, and, by implication, the social and economic relations that organize production and marketing within the region. Subsequent work by Skinner (1964, 1965a, 1965b) and Smith (1976, 1977) showed that the ideal central place hierarchies described in early models have correlates in functioning market systems. Observation of these functioning systems showed that particular kinds of social and economic arrangements do indeed have predictable spatial manifestations. This characteristic provoked considerable interest among anthropologists, geographers, and other social scientists concerned with underdevelopment in Third World countries, as spatial analysis offered the possibility of understanding how local populations are linked to social, economic, and political processes at regional and national levels.

Spatial analysis has proven attractive to development agency and government planners as well as academics. As it has become increasingly clear that the problems of town and countryside are interrelated, so that conditions in one cannot be explained or improved without reference to conditions in the other, spatial analysis offers an approach that highlights the interrelationships without obscuring the internal dynamics of towns and rural areas. In addition, the existence of a relationship between the spatial arrangement of a region and the social and economic relations that structure it suggests the possibility of improving economic opportunities by altering the location of such features as transport facilities, bulking facilities and market centers, in order to promote greater access to them.

The application of spatial analysis to development problems has been rewarded by a much more sophisticated understanding of the mechanisms that bind rural producers to regional, national, and international economic structures. It has played an important role in moving discussion of the linkages between local-level production and the larger context from an abstract appreciation that these linkages exist and are somehow important in the development process, to a more precise understanding of how specific types of social and economic relations mediated by specific institutions with a defined location shape the production and marketing options available to individuals.

To date, however, it has been difficult to translate this improved analytical capacity into improved development projects and programs. This has been because, efforts to move from analysis to implementation have been marked by one of two tendencies. One, associated particularly with anthropologists and other social scientists, is to focus on the social relations that comprise a regional system without locating them spatially or demonstrating their significance to specific production and marketing activities. The other tendency, associated more closely with regional planners, is to reify the importance of the physical features of the regional system, obscuring the fact that these are often the products of social relations and not the causes, and creating an impression that development could be achieved by simply altering the physical features of a region without reference to underlying social relations.

Adherents of both tendencies lose sight of the fact that successful implementation of development projects and programs based on the insights afforded by spatial analysis depends on understanding the relationship between the physical features of a regional system and the social relations that cause those features to be distributed across the landscape in a particular way. It is through an examination of this relationship that we can determine what sorts of problems can be addressed through modifying access to productive resources at the local and regional level, and what sorts of problems can be better addressed through policy reform at the national and international levels. The Rural-Urban Exchange (RUE) approach developed by SARSA focuses on the interplay between social relations that regulate access to resources and the physical distribution of those resources. The discussion that follows seeks to illuminate the conceptual issues that are critical in understanding the dynamics of that interplay and illustrate the sorts of questions that can be articulated and answered through such an approach.

## CONCEPTUAL ANTECEDENTS

Drawing upon the work of Christaller (1966) and Losch (1954), Skinner (1964, 1965a, 1965b) and Smith (1976, 1977) have shown that the kinds of social relations mentioned above, which are associated with different patterns of market organization, have their analogues in the spatial arrangement of market systems. The earlier works hypothesized a relationship between market organization and the spatial arrangement of the marketplace, and deduced what the spatial arrangement of a market would be if it were located on a featureless plain, and if it were characterized by 1) total dedication to profit maximization by all suppliers of goods, 2) complete rationality in the selection of market centers by consumers, 3) a differentiated and regionally integrated market economy, 4) equal purchasing power by all exchanging parties, and 5) unrestricted perfect competition among all parties. However, because such conditions rarely approach the organization of real marketplaces in functioning market systems, the applications of Christaller's and Losch's insights were limited.

Skinner and Smith, however, demonstrated that functioning market systems have characteristic spatial arrangements that act as signatures of the social relations that organize them. They defined several types of regional market systems, based on the amount of hierarchy and differentiation among centers, and described them in terms of the social relations that one would expect to organize each type in view of the spatial arrangement. Smith (1977) defined four types of regional market systems for western Guatemala, which, she argued, had organizational features in common with market systems with similar spatial arrangements in other areas of the world. In order to begin explaining regional social relations, the case studies to be presented below will illustrate the application of two of these spatial types.

The first type described by Smith (1977) was an interlocking market system, which was the system she studied that most closely resembled the ideal central-place hierarchies described by Christaller and Losch. Smith's interlocking system is characterized by a well-developed hierarchy of market centers, which contains three levels relating to one another in a 1:3:12 ratio. The features of market organization observed to accompany this spatial arrangement included a lack of political control over the rural economy, so that the interaction of supply and demand was the primary mechanism for establishing commodity prices; and a lack of concentration or monopoly in both the production and distribution of commodities. In addition, production and marketing took place in a context of growing domestic demand for the commodities produced by smallholders, while there was enough differentiation of production within the market region itself so that most regional demand was satisfied by regional production.

The second system described by Smith was a dendritic market system, characterized by only two levels of differentiation among market centers, with a high proportion of small centers in relation to the number of large ones. Because the smaller centers had only weak links to one another, prices for commodities not in demand by the larger centers were set according to local conditions only. Only commodities that were imported to the region through the larger centers, or local products which they collected and redistributed were priced on a regional level. Smith found the dendritic system to be characterized by monopoly control of market centers and transport facilities by traders from outside the region, with the result that smallholder participation in commerce was low. Most commodities that left the local areas where they were produced were transported out of the region altogether, and local areas were heavily dependent on commodities imported from outside the region. While the dendritic system was "efficient" from the point of view of exporting goods from the region or distributing goods imported to the region from elsewhere, it offered few opportunities for increasing local participation in commerce to stimulate regional economic growth and development.

The third type of spatial arrangement described by Smith was a primate market system, where she observed a single major center with no intermediate centers and many small ones. In the primate system, local trade was monopolized by urban merchants and outsiders to the exclusion of rural smallholders, and most productive resources were held by enterprises with interests outside of the regional economy. As a result of this control of commerce and productive resources by outside interests, the primate system depended on less developed regions for food and labor and on distant, more developed economies for markets.

Finally, Smith identified what she called a top-heavy market system, characterized by a proliferation of higher level market centers and the domination of commerce by rural traders. Rural producers depended on nearby, less developed market systems to provide many of the commodities they purchased. Production occurred in the context of declining demand for the goods and services produced in the system. This, in turn, fostered intense competition among producers and traders, to the exclusion of smaller competitors, and led to concentration and monopoly of commercialization facilities and productive resources.

## THE OPERATIONAL CHALLENGE

Skinner (1985) and Smith (1976, 1977) have emphasized that the fruitful application of spatial analysis to the study of regional market systems requires an understanding of the relationship between market organization and marketplace organization. The former refers to the way in which supply and demand interact in a particular social and historical setting to establish prices for commodities and the means of their production, while the latter refers to how physical channels of market exchange are organized on the ground. The application of spatial analysis to problems of regional marketing is based on the premise that marketplace organization varies as market organization varies.

The options available to the participants in a market system are a function of the social relations between the exchanging parties. Aspects of these social relations relevant for shaping economic opportunity may include differences in scale of operation or in wealth between the exchanging parties, differences in the relative scarcity or socially determined need for the goods controlled by each, or in the ability of one party to outwait or out-exchange the other.

These kinds of relationships are, in turn, a function of the distribution of resources needed to produce the commodities being exchanged. Thus, it is the prior distribution of productive resources that shapes the prices of the commodities being exchanged in a particular market system. While commodity prices may feed back into the costs of productive resources, over the long term commodity prices are more a reflection of the distribution of resources than they are the cause of that distribution. The result is that those who enter into unfavorable market relations are rarely able to improve their position simply by being more productive. The smaller resource base of the disadvantaged party is often depleted, while the party with greater access to productive resources accumulates capital.

The implication of this for effective implementation of development activities is that under the proper circumstances a regional approach to modifying the linkages between towns and rural areas can make important contributions. The approach is not appropriate for all areas or all types of development problems affecting towns and their hinterlands, however. For example, one needs to know whether or not the primary development constraints can be addressed through changes within a region, or whether they are better treated through national policy reform. One also needs to know whether the utility to be gained through improvements in the spatial organization of a regional system justifies the cost of the original investment (Painter 1987a, 1987b). Because most regions produce multiple commodities, and the mechanisms for moving these commodities from the farm to market do not perfectly overlap, it is necessary to identify key commodities and to define the region to be affected by a project in terms of the linkages needed to produce and sell those commodities (Karaska and Belsky 1987). Because different commodities frequently compete for the same productive resources, which are available in limited quantity (such as land, water, and labor), it is important to consider who will benefit and who will lose in the regional economy as the result of a particular intervention, and to calculate what this implies for broader development goals. The following cases studies, from Bolivia and Peru, illustrate how these general issues manifest themselves in concrete situations.

## Puno, Peru

Puno Department lies in southern Peru, and more specifically, in that part of the country which comprises the Peruvian portion of the Lake Titicaca basin. During the middle decades of this century, the department was the site of a successful effort by peasant communities to establish rural markets in order to break the oligopsonistic control of urban merchants over the sale of their agricultural production. Establishment of these rural markets in Puno coincided with a period of rapid urban population growth which was creating a demand for foodstuffs that the traditional system, based on patron/client relations between urban merchants and peasants, was unable to satisfy. Whereas in the past, merchants had been able to remain in the urban centers and wait for peasants to bring their food in from the countryside, this growth in demand forced them to seek out new sources of food in rural areas. When they did so, the merchants confronted a peasantry in the process of establishing a network of rural markets. They were ultimately forced to turn to these new markets to secure food, rather than being able to extend their patron/client ties (Appleby 1976a, 1976b, 1978).

The creation of new rural markets was one aspect of a more general struggle by the peasantry to free itself from some of the burdens imposed by urban-based regional elites. Other issues of concern to peasants were the right to attend public schools, freedom from personal service obligations, and freedom to participate in growing opportunities in commerce. Urban elites resisted these changes, and violent conflicts resulted. Eventually, the peasant communities were able to win sufficient support from the national government against the regional elites for limited reforms to be enacted. The establishment of rural markets was one response to the greater freedom these reforms provided (Collins 1985; Collins and Painter 1988).

The establishment of rural markets provided new opportunities for peasants to participate in the market system. Because of increased competition among merchants and the new hierarchical organization of bulking and transport facilities, the revenues peasants earned through the sale of food products increased. However, the success of the change in the spatial organization of the market system was a function of conditions characteristic of that particular period. Urban population growth was creating a demand for food that exceeded the capacity of merchants to provide it through established patron/client relations. For the first time, merchants were forced to venture into the countryside in search of new sources of supply and to compete with one another in procuring it. In addition, the nature of national political struggles during this period determined that peasants could obtain support from outside interests (both national and international) for their efforts (Collins 1985; Collins and Painter 1988).

By the 1960s, the effects of national economic policies that had begun to take shape early in the century were making themselves felt. Intended to keep food prices low for urban consumers, these policies had the effect of discouraging domestic food production by smallholders through measures that included the subsidized importation of food staples and the directing of agricultural development support away from food commodities that had historically formed central elements of the Peruvian diet (Alvarez 1980, 1983; Caballero 1984; Painter 1983). Rural producers were outcompeted in regional markets by imported foodstuffs, and demand for peasant food production was on the decline. By 1980, the market network that bulked peasant production and transported it to urban centers had ceased to function in some areas of Puno, and the major purpose of the system was the distribution of manufactured goods from the cities into the countryside (Painter 1981, 1986).

Viewing the Puno market system as a dendritic network, one finds that many of the conditions Smith predicted are, in fact, present. There is near-monopoly control of transport facilities by traders who do not participate in commerce within the region. These traders are concerned almost exclusively with the export of products to other regions for processing and/or consumption, and with the transport of people traveling out of the region in search of wage-labor opportunities. While there is widespread peasant participation in petty commerce, it is dependent upon petty commercialists being able to buy passage on the vehicles owned by the large traders.

The Puno region relies on a number of manufactured goods produced outside the region. Local artisan production has been supplanted by manufactured commodities imported to the region in all but a narrow range of goods of interest to tourists. Regional urban centers are heavily dependent on processed foodstuffs imported from outside Peru, at the expense of local producers. Moreover, because of the lack of economic opportunity in agriculture, most rural families are compelled to participate in some form of wage labor migration out of the region in search of cash income to complement agricultural production for their own use, so that wages constitute another import upon which there is considerable dependence (Collins 1988).

In the 1980s, the limitations on economic opportunity confronting rural dwellers in Puno are not likely to be remedied through modifications in the spatial arrangement of the market system. The declining revenues associated with agricultural production originate in national agricultural policies that cannot be addressed at the regional level (Alvarez 1980, 1983; Caballero 1984; Painter 1983). The same is true of the concentration of marketing and transport facilities in the hands of a small number of people (Esculies et al. 1977; Figueroa 1980). The result of this complex of factors has been to limit returns that rural dwellers can earn from agriculture to such an extent that they need to spend as much time generating off-farm revenue as possible (Figueroa 1982, 1984). Because the problems facing rural smallholders in Puno are not the product of regional resource competition, but involve national decisions to favor entire sectors of the Peruvian economy over smallholder agriculture, altering the spatial organization of the regional market system will prove neither as easy nor as effective as it did earlier in the century.

## The Eastern Bolivian Lowlands

The market system of the settlement area of northeastern Santa Cruz Department, in the lowlands of eastern Bolivia, resembles what Smith (1977) refers to as a primate market system. The system is dominated by the cities of Montero and Santa Cruz. Because of their proximity to one another at the southwestern edge of the region (along the same paved road) and because they purvey essentially the same goods and services to northeastern Santa Cruz, these cities may legitimately be viewed as a single urban center. Below this primate center, markets are small, few in number, and undifferentiated in terms of the goods and services they provide.

While the cities of Montero and Santa Cruz act as a single urban center for the smallholder settlement area, they are empirically quite different from one another in important ways. Although both cities claim the northeastern part of the department as a hinterland, for example, the settlement area is the sole hinterland for Montero, while that of Santa Cruz extends to the south and southeast of the city. Historically, the two cities are quite distinct as well. Santa Cruz dates from the earliest days of the Spanish occupation of eastern Bolivia, in the mid-16th century, and those who control its commercial and political life place a high value on their European heritage and ancestry. Montero, on the other hand, is a product of the expansion of commercial agriculture north of Santa Cruz and the subsequent influx of smallholders that has occurred since the mid-1950s. The commercial and political life of Montero is dominated by people who have entered the region from the highlands and Andean valleys of Bolivia, and who strongly identify with the Native American traditions of the country's Quechua and Aymara people (Stearman 1976:75-149, 202-252; 1985a:40-133).

The position of Santa Cruz and Montero as a primate market center for northeastern Bolivia has deep historical roots in the manorial economy that controlled this region until the state began systematically to promote commercial agricultural development with the support of international donor agencies in the mid-1950s. Prior to that time, transactions took place in the context of patron/client relations between the owners of large estates and resident peasant populations held in place by obligations of personal service and debt peonage. The city of Santa Cruz itself had only a small periodic market, as most of the urban elite supplied itself with goods produced on its rural estates and luxuries imported from abroad. In rural areas, exchanges of goods and services took place within the context of the estates, and were under the control of the landlords (Heath 1969).

When the Movimiento Nacionalista Revolucionario (MNR) took power in 1952, it began to change the organization of agricultural production throughout Bolivia as a part of a sweeping reform program. In the highlands and Andean valleys, the principal feature of this change was the agrarian reform program, which abolished the manorial estates that had dominated all aspects of rural life and divided them among the resident peasant populations and freeholding communities whose lands had been usurped by the estates. By abolishing the personal service obligations of the peasants and making them the owners of the land, the agrarian reform gave peasants new freedom to leave home in search of economic opportunities elsewhere. As time passed, the exercise of this freedom became increasingly necessary as many families could not satisfy their consumption requirements by farming on the redistributed parcels. Within a few years, large numbers of people were entering the wage labor market. Some sought permanent employment in cities such as La Paz and Cochabamba, while others became involved in seasonal wage labor migration, earning salaries to supplement the production on their small plots.

The freeing of large numbers of laborers in the Bolivian highlands and valleys coincided with a state drive to promote the development of large-scale commercial agriculture in the eastern lowlands. With support from international donor agencies and private voluntary organizations, the government embarked on a major road-building program, encouraged the cultivation of cash crops such as cotton, sugar cane, and coffee, and established heavy-equipment pools to provide landowners with access to machinery for clearing large areas of forest. In addition, while few lands in eastern Bolivia were actually expropriated under the provisions of the agrarian reform, the threat of expropriation was used to encourage the modernization of estates and discourage political opposition.

These incentives, combined with the availability of seasonal labor from the highlands and valleys, facilitated a rapid transformation of the manorial estates into large, commercial agricultural enterprises. This source of employment became a central feature of the production strategies pursued by many peasant families. Laborers from other, land-scarce areas of Bolivia were greatly impressed by the availability of cheap land in Santa Cruz. They were encouraged to settle there by a central government seeking to use the lowlands as a "safety valve" to relieve the social pressures created by land scarcity and unemployment in other regions of the country. The areas designated for smallholder settlement were located primarily to the north and northeast of the city of Santa Cruz. As the political and administrative center of the region, Santa Cruz extended its dominance to include the settlement areas. Montero, located some 50 kilometers to the north, grew from a small town to a major city in a short period of time by virtue of being the place where the two major roads into the settlement areas joined before heading south to Santa Cruz. Secondary and tertiary market centers did not develop because there were no existing centers upon which to build, and because smallholding settlers did not exert enough demand for manufactured goods, or produce commodities for which there was sufficient regional demand to lead to the establishment of rural market centers.

Observation of this regional market system indicates that many of Smith's deductions about the nature of social relations organizing a primate market system appear to be confirmed. First, the principal aspects of local trade are controlled by interests based outside of the region. The lumber industry is dominated by sawmills that represent multinational corporations. Agents of these firms routinely disregard national laws governing the cutting and sale of trees. Logs are sawed into boards, cured, and shipped to the United States or to Europe for transformation into a final product (Painter et al. 1984). The major cash crops, corn and rice, are either consumed locally, or transported to Montero or Santa Cruz for processing. There, corn is combined with other ingredients in the production of balanced feed mixes for livestock, while rice is hulled and transported to other regions of Bolivia for human consumption.

Second, productive resources are controlled by a few large-scale enterprises with interests outside of the regional economy. Settlement areas were established in areas far from roads, while transport facilities are controlled by a small number of companies based in Montero or Santa Cruz that are principally concerned with moving goods out of the region. Because of their limited cash reserves and political power, smallholders are unable to compete effectively for the limited quantities of most agricultural inputs available in the region; these are consumed by large-scale commercial agricultural enterprises.

Finally, the regional economy of northeastern Santa Cruz depends on less developed regional economies for labor, and on distant, more highly developed economies for markets. The commercial agriculture that is the principal industry in the region has grown in conjunction with the increased availability of cheap migrant labor from the highland and valley regions of Bolivia, The cotton, coffee, and soybeans that are its most important crops are exported to Brazil, and the bulk of the region's beef production is consumed in European markets.

The unfavorable situation of smallholding settlers in northeastern Santa Cruz has its origins in unsuccessful resource competition with regional elites, whose dominance of the political and economic life of northeastern Santa Cruz was not challenged when the Bolivian government undertook the promotion of commercial agricultural development there in the 1950s. As a result, the elites were able to monopolize access to roads and markets, with smallholder settlement being relegated to less desirable areas. State policy promoted smallholder settlement, but took no specific action to insure access to these infrastructural facilities or to enfranchise them politically in order that they might compete effectively for the development resources channeled into the region (Painter 1987c). Thus, some observers (e.g., Wennergren and Whitaker 1976) recommended that the most cost-effective way to promote smallholder agriculture would be to invest in improved roads linking market centers with areas that had been settled or that the state would like to see settled by small farmers from other parts of the country. But, significant road improvements precipitated land speculation that has placed a large amount of the most favorably located agricultural land in the hands of urban-based merchants, and caused large numbers of farmers to move deeper into the forest (Stearman 1985b).

The broad outlines of the situation in northeastern Santa Cruz may be predicted on the basis of an analysis of the spatial organization of its market system. While specific details require an understanding of the local context, spatial analysis is a useful tool for forming hypotheses in order to arrive at such an understanding. Furthermore, because the unfavorable situation of the settlers is the result of unsuccessful resource competition on a regional level, a regional plan to improve access to agroprocessing facilities, roads, transport services, and markets would enjoy good possibilities for improving settlers' economic opportunities. For these possibilities to be realized, a program of incremental changes in the spatial arrangement of the regional market system would either need to focus on areas of economic activity not already dominated by elites, or it would have to include specific measures to strengthen institutions representing settler interests, in order to insure that they were able to compete with entrenched interests and that the improvements made were not simply appropriated by elites (see Painter et al. 1984).

## DISCUSSION

In both the Bolivian and Peruvian cases reviewed here, spatial analysis is a powerful tool for generating hypotheses about the social relations organizing the market systems in the two regions. The power of the approach derives from the ability of spatial models, on the one hand, to accommodate the particularities of diverse local circumstances in reference to a general theory of market organization, and, on the other, to enable the researcher to be explicit about the relationship between empirically observable events, observations, and behaviors and the social processes that generate them. In terms of practical applications, this means that a spatial approach can greatly simplify the process of reaching an understanding by development planners and policy makers of the social and economic dynamics at work in a region.

The example from southern Peru indicates that changes in the spatial organization of a market system may, at times, improve the economic opportunities it provides for those who participate in it. However, the efficacy of modifying the spatial organization could not be assessed with reference to the spatial organization alone, but was a function of changes in patterns of resource competition. Attempts to establish rural markets before the beginning of a period of rapid urban population growth would have failed because there was no pressure on merchants to seek out new sources of supply. Had attempts to improve the living conditions of the rural population by establishing new rural market centers been made in the 1960s or 1970s, chances for success would have been diminished by competition with foodstuffs imported into Puno from other regions and outside of Peru (Appleby 1979; Painter 1986).

Spatial analysis could predict the nature of many of the social relationships that organized the regional market system of Puno, but not the particular economic interests and political alliances that would demand or oppose such changes. Smallholders in Puno are the victims of national-level policies hostile to them as a group. The factors limiting their economic opportunities are the same ones that limit the economic opportunities of smallholders throughout the country in similar ways. Region-based efforts to improve opportunities are not likely to show impressive results in the absence of national policy changes intended to improve conditions for smallholders.

In the case of Bolivia, the factor limiting economic opportunities for smallholding settlers is unsuccessful resource competition with regional elites. While there are linkages of various types between northeastern Santa

Cruz and the national and international economies, the arena for resource competition is the region itself. Thus, the problems confronting smallholders can be addressed at the regional level. The difficulty here is that large-scale commercial agriculture and lumber interests dominate the regional economy and monopolize access to development resources. One can expect that regional elites will attempt to protect their position from those who might encroach on their economic priorities. Thus, improvements in the physical conditions of production and marketing for smallholders would need to be accompanied by institutional support that permits them to represent their interests more effectively in the arena of regional resource competition.

The RUE approach offers two important advantages to development planners. First, it permits the rapid identification of limitations on production and marketing and facilitates planning for how to overcome these. Second, because the spatial features of a region reflect the social relations that bind the people engaged in production and marketing, it suggests ways in which modifications of the spatial arrangement of a market system may have their impacts enhanced or limited by patterns of resource competition. In this role it moves consideration of social issues from a relatively abstract level to one in which social relations are tied to concrete, observable feature of the market system.

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