FROM THE EDITOR

With this issue the **International Journal of Sociology of Agriculture and Food** changes format by abandoning its traditional opening section, the "Forum." This change has been motivated by the emergence of a variety of relevant substantive interests within the area of sociology of agriculture and food. Accordingly, a journal issue which presents differing yet interrelated topics is preferred to one devoted to a principal theme complemented by related articles. The section on "proposed research" has been preserved to underscore the continued commitment of the Research Committee on Sociology of Agriculture and Food's members to share ideas about on-going scientific activities. Simultaneously, the effort to publish articles addressing points of view generated from various regions of the world has been maintained along with the bi-lingual character of the journal. As in the past, the objective of fostering a global dialogue remains at the forefront of the RC40 agenda.

This issue opens with four articles conceived within the discourse of globalization. The opening article by Luis Llambí discusses the relationship between the development of a global system, the emergence of superstates and the growth of transnational corporations (TNCs). He argues that the process of globalization has been paralleled by the rise of three large geopolitical and commercial superstates (the United States, Japan and the European Community) and by the consolidation of transnational corporations. TNCs may differ in national origin, Llambí argues, however they are all interested in global sourcing and in taking advantage of new economic opportunities worldwide. Simultaneously, they are interested in consolidating their positions regionally through the expansion of their powers within the three superstates. The satisfaction of this objective mandates TNCs' actions toward increasing their presence in the region of origin (superstate of origin) and/or penetrating other superstates. As far as the superstates themselves are concerned, Llambí contends that each of them pursues two common strategies. The first involves maneuvers to secure the most favorable global order. The second consists of actions aimed at enlarging their individual economic and geopolitical sphere of influence.

Aspects of the process of globalization are further discussed by Mónica Bendini and Marta Palomares. In their article "Globalization and Production Units' Strategies in the Fruit and Vegetable Sector: Their Effects on Small Producers," these authors discuss the concomitant phenomena of concentration and disintegration fostered by globalization. Focusing on the Argentinean case, they maintain that in the fruit and vegetable sector the integration of Argentinean production in global circuits has generated the subordination of agricultural activities to industrial capital along with processes of marginalization of small producers and family labor. Furthermore, they argue that the marginalization of small producers has negatively affected both the operations of large producers and the conditions of hired workers. They conclude by stressing that this crisis demands that existing

neo-liberal policies be overcome.

The relationship between the establishment of global production and consumption circuits and consequences at the local level is explored by Alberto Arce in his article "New Tastes in Industrialized Countries and Transformations in the Latin American Countryside." Adopting the cases of Mexico and Chile, the author analyses the connections between the growth of the demand for fresh fruits and vegetables in the developed North and responses that this situation creates in the developing South. More specifically, Arce takes a closer look at the position of actors and communities in Mexican and Chilean fruit and vegetable producing regions and at the ways in which the production of export oriented commodities reorganizes everyday practices. Departing from more common analyses of globalization, Arce emphasizes cultural, spatial, social and political dimensions and the manners in which they become central for the historical manifestation of globalization at the local level.

The fruit and vegetable sector is further discussed in Robert Schaeffer's "Standardization, GATT and the Fresh Food System." Schaeffer illustrates the contradictions encountered by this sector in its attempts to establish "quality of products." Quality is identified through standardization, which refers to the fresh fruit and vegetable industry's attempts to establish product standards and, at the same time, produce standardized commodities. These efforts, Schaeffer argues, are contradicted by the introduction of GATT's "Codex Alimentarius" as the entity responsible for setting product standards. This move, it is maintained, extends patent protection to agricultural technologies, reduces agricultural tariffs and subsidies, eliminates restrictions on agricultural exports and, in so doing, counters the possibility of introducing higher production standards.

The regional dimension of the agricultural and food system is addressed in the four remaining papers of the "articles" section. In the first of these Pascal Byé and Maria Fonte reflect on the relationship between territorial concentration of agricultural production and the development of industrial techniques of production in agriculture. Employing the case of Western Europe, the authors maintain that segmentation of rural space and regional depopulation have been key consequences of the evolution of the above mentioned relationship. Furthermore, they demonstrate that "Fordist" techniques are unable to address the new emerging demands, such as those for a better environment, healthier products and recreation. A call for information intensive modes of management is identified as a possible alternative avenue.

Concern for the future of the rural environment is expressed by Frank Vanclay and Geoffrey Lawrence in their article "Environmental and Social Consequences of Economic Restructuring in Australian Agriculture." The process of agricultural restructuring in Australia has resulted in patterns similar to those experienced in other countries. In essence, it has been characterized by the expansion of corporate farming, the growth of subcontracting and the development of new biotechnology. Moreover, these developments have been paralleled by the disappearance of a significant number of family farms and the concomitant crisis of these remaining. The authors argue that the process of restructuring entails considerable environmental degradation and, as such, it should be re-evaluated at the policy level if preservation of the environment is the desired objective. It is also maintained that agricultural restructuring generates significant negative consequences which jeopardize the nature of farming and the nature of settlements in rural areas.

The article by Olivier Delahaye "New Agents in the Agricultural Land Market in

Venezuela" shifts attention to Latin America. Delahaye argues that the agrarian reform in Venezuela has failed its formal objective of distributing land to small and medium family producers. Through an analysis of the evolution of land ownership since the late fifties, the author argues that land property has been increasingly concentrated in the hands of companies and professionals. International organizations have demonstrated a growing interest in the land market which, however, has not been translated into direct intervention due to resistance at the local power structure level.

Land tenancy in Latin America is further discussed by Sonia Bergamasco in her article "Family Agriculture, Modernization and Rural Development in Brazil." Through the study of two settlements in rural Brazil, Bergamasco analyses strategies for the persistence of farmers on the land. It is argued that settlers who have been part of programs with minimal coordination from the State have demonstrated more interest in the use of modern technologies. This condition, combined with a complex set of other characteristics, has allowed farmers to have a better chance of remaining on the land. Conversely, settlers who have gained control of land through programs with higher levels of State intervention have displayed a somewhat diminished ability to remain on the land.

The final paper of the "articles" session discusses the issue of relationship between agricultural transformation and colonialism. Seung Woo Park and Gary Green compare the economic development of a fast growing country, Korea, with that of a underdeveloped country, the Philippines. Through an examination of internal class dynamics and external world economic forces, it is maintained that structural transformation in agriculture and rural class relations were crucial factors in explaining the different developmental path taken by the two countries. More specifically and departing from previous analyses which underscored differences in the role of the State, business-government relations and psychological factors, the authors stress that an adequate understanding of the issue at hand cannot be reached without considering the differences in the colonial experiences of the two countries.

The "proposed research" session contains a report by William H. Friedland on "The Globalization of the Fresh Fruit and Vegetable System." It summarizes the results of a workshop held in Santa Cruz, California in December of 1991 aimed at both developing a better understanding of the global evolution of the industry and establishing a common future research agenda. In regard to the latter, the creation of a network of researchers interested in this topic and the systematization of analysis of the sector were identified as immediate needs. At the substantive level, the workshop underscored the truly global evolution of the sector. This conclusion is substantiated by the multiplication of anti-seasonal and/or exotic products in "Northwestern" markets, the growth of international consumption of fruits and vegetables and the development of non-traditional export agriculture in the "South." A summary of the discussion on the implications that the globalization of the sectors has at the social, environmental and economic levels is also presented.

Global Agro-Food Restructuring: The Role of Transnational Corporations and Nation-States

Luis Llambí

The objective of this article is to illustrate the concomitant processes of globalization and regionalization in the agro-food sector. This task is accomplished through an emphasis on the comlex interplay between geo-political and geo-economic factors. In this context, the current global restructuring is viewed as the result of deliberate strategies on teh part of pwerful nations and transnational corporations as well as the unwanted consequences of their multiple interrelations.

Luis Llambí is Associate Professor at the Venezuelan Institute of Scientific Research (IVIC), Caracas. He is the author of *La Moderna Finca Familiar* (1988) and of numerous scientific articles which have appeared in both Spanish and English.

Introduction[1]

In all big supermarkets or delicatessen stores at any city worldwide, it is possible to find today the widest variety of food products and beverages typical of no matter what culture or region of the planet. In this "global village," the food products we consume and the way they were produced tend to be progressively similar, even though most of the time we have doubts about the ethnic or culinary authenticity of such products.

Paradoxically, in spite of (or due to) this globalization process, new trade and investment links between neighboring countries strengthen the emergence of the three big regional (geopolitical and commercial) blocs which tend to fragment this new world structure.

How can these two simultaneous processes of globalization and regionalization in the establishment of a new world order be explained, particularly in the agro-food sector? What players and social forces act behind these processes? My statement is that both the transnational corporations and the three superstates that emerged at the end of the cold war (US, Japan and the European Community) actively participate in the establishment of a new world structure; and in the process, they are restructuring the agricultural and food systems.

Transnational corporations, though

different in "national" origins and in the various moments of the globalization process in which they appeared, usually focus their investments towards global sourcing and supplying. However, in an scenario depicted by the establishment of regional blocs, these corporations also develop strategies addressed not only to consolidate their position in their bloc of origin, but also to obtain a solid position in the two other blocs before it is too late.

On the other side, each of the three post cold war super-states keeps a double-strategy in the current juncture: (a) at the multilateral fora, an agenda for building the most convenient global order for its interests as a world power; and, (b) in its own backyard, an agenda for building the enlarged space (economical and geopolitical) in which it believes to be in the best of its capacities to compete in the new global scenarios. To identify these multiple strategies, the way in which they interact, and, how in the development of the events, the new general and agro-food global order is shaped, are the main objeetives of this paper.

I am fully aware that these are not the only institutional agents that participate in the establishment of a new global order and in the restructuring of agro-food systems. The small (in economic terms) and weak (in political terms) states surrounding each one of these blocs design and implement their own strategies to avoid being excluded from these processes. Also, the multilateral agencies (e.g. IMF, World Bank, and the regional development agencies) politically strengthened after the debt crisis and the fall of the Berlin Wall, have become important agents in these processes. Finally, but no less important, the different social and political movements (i.e. environmentalists, unions, consumer and neighbor associations), each having their own agenda, also actively participate in these processes. Nevertheless, for reasons of time and space, the analysis of the roles of these agents goes beyond the scope of this paper.

The Role of Transnational Corporations

There are major differences among the type of enterprise that, because of frugality in the use of language, we used to refer to as transnational corporations. Particularly, the agro-food transnational corporations (ATNCs) are differentiated from a **generational** point of view (because of their start in different moments of the globalization process) and by their **national origins** (by the political economy of their country of origin).

Two main points are developed in this part of the paper. First, that the current restructuring of the world agro-food systems is a very complex process that involves not only the restructuring of the ATNCs' first generations, but also the emergence of new and flexible forms of transnational investment and marketing ventures. And, second, that the strategies adopted by each one of these transnational type of organizations vary according to the different and shifting scenarios (in time and space) in which they are immersed.

A Long-term View of the Transnational Phenomenon

United Fruit Company, founded in 1899, is a typical example of a type of venture oriented to supply an increasing demand of the industrialized countries for tropical products (banana, coffee, tea, rubber, jute and sisal) coming from the plantation agricultures of the colonial or neo-colonial regions at the end of the 19th century. This represented the **first generation** of agro-food transnational corporations (ATNCs). The point I want to stress is that although "global" in their market

orientation, the geographical domain of their supply was determined by their country of origin's area of geopolitical influence (colonial or neo-colonial) (Borner, 1986; Cantwell, 1987).

The end of World War II radically transformed the economic and political environment in which the globalization process was proceeding, creating the conditions for the emergence of the **second generation** of ATNCs. On one hand, the Bretton Woods and GATT agreements--fixed exchange rates and gradual tariff barrier reductions--set up the rules of the post-war economic order (1945-1972). On the other hand, the Yalta agreement and the post-war European and Japanese reconstruction under the umbrella of the US military and political influence, secured the political framework in which the US transnational corporations reached their unquestionable world hegemony. Furthermore, although rhetoric and practice were largely divorced, the United States--as a world hegemonic power--promoted a global order based on the principles of national sovereignty, free trade, and unobstructed mobility of capital and private initiative. Within this framework, taking advantage of the US State's economic and political hegemony, US transnational corporations successfully exported their agricultural technical package--which was originally developed to serve the needs of its country of origin; and, their food consumption patterns--which were gradually associated with "development" and the "American way of life."[2]

The typical form of this **second generation** of ATNCs was the large grain-based trading conglomerate (feed grains and oilseeds)[3]. What is important to note here is that, whereas the "banana" trading corporation was typically oriented to domestically and globally supply a commodity produced in a "third world" plantation economy, from the beginning, grain-based conglomerates were focused on satisfying global demand by marketing a product which is mainly produced under the conditions established by the post-war industrialized world (cf. Borner, 1986).

From the 1950s on, the US food processing industry, initially oriented to supply the domestic market, started to experience a profound restructuring giving rise to a **third generation** of ATNCs. Since the beginning of the century, some local food processing firms successfully organized national processing and distributing networks, due to the rapid expansion of the country's transportation systems and achievements in food storage and distribution in the US. Yet, at the end of the decade, only a few companies had ventured abroad, most still retaining a strong domestic orientation. However, with the passage of the Clayton Act, anti-trust legislation was strictly enforced. As a consequence, many large US corporations, being increasingly constrained at home, began to search for opportunities of investment and market abroad (Barlett, 1979). Gerber, Del Monte, Campbell's and Heinz are examples of ATNCs, that after the '50s--during the period of import-substitution industrialization--decided to locate canneries in Latin America through supply contracts with local growers.

In Europe, by contrast, food processing evolved in a completely different way. The diversity of culinary cultures and the numerical significance of small-scale family farms avoided the development of large US-style agro-food conglomerates. Exceptions to this general statement are agro-food transnationals from Switzerland (e.g. Nestlé) or from the Netherlands (e.g. Unilever), which, probably because of their small home markets, were globally-oriented from the start (ILO, 1989).

The Transnational Phenomenon within the Current Agro-Food Restructuring

Two main trends influence the current restructuring of the global agro-food system: first, the **industrial restructuring** of the first

three ATNC's generations; and second, the emergence of a **fourth generation**, constituted by extremely flexible and de-centralized forms of organization (i.e. the new export networks of fresh fruits and vegetables).

Industrial Restructuring of "Traditional" Agro-food Transnational Ventures.

Two recent events in economic policy have exerted an enormous influence in the process of industrial restructuring of the "traditional" agro-food transnational ventures. On one side is the deregulation of world markets (financial and commodity) due to the rise of neo-liberal doctrines in the highly industrialized countries. And, on the other side, **are market openings** in the indebted countries of the third world and former socialist economies resulting from the implementation of structural adjustment policies endorsed by the multilateral agencies of the new global order.

In this new scenario, the strategy of "traditional" corporations has changed, with the purpose now being to achieve an increased market share in local, regional or global markets, even if it is necessary to waive short-term profits. Mergers, acquisitions and leveraged by-outs, as opposed to expanding horizontally through direct foreign investments, have become the preferred tools for a rapid industrial restructuring.

This growing pattern is not new in the agro-food sector. During the 1920s, the US food processing industry went through a period of mergers and acquisitions in which many of today's large food conglomerates were formed. Mergers were also the hallmark of the industrial restructuring movement in the late '60's (Kohls and Uhl, 1990; ILO, 1989). What is new within the current juncture, however, is the large scale and the global dimension of the majority of these takeovers.

Let's take some examples. Three firms, Kohlberg, Kravis & Roberts, Philip Morris and R.J. Reynolds [4], through a series of takeovers during the 1980s, have now acquired gigantic size. According to Kneen (1989:110),

> Until late in 1988, the biggest leveraged take-over in history was that of Beatrice Foods by Kohlberg, Kravis and Roberts, a private New York company, for $6.2 billion, in the summer of 1986. Shortly afterwards, the same private firm bought Safeway (USA and Canada) for $4.2 billion. These records were broken in the fall of 1988 with the purchase of Kraft by Philip Morris for $13.1 billion, creating the world's biggest consumer products company. In the same vein, Nestlé bought Carnation for $3 billion in 1985, Weston bought Cadbury, and the list goes on. Finally, in December 1988, Kohlberg, Kravis & Roberts succeeded in buying RJR-Nabisco for $25 billion.

ATNCs' Fourth Generation: Flexible Networks of Trade and Investment.

Another important transformation of the transnational phenomenon, within this new period of the globalization process, is the emergence of the ATNCs' **fourth generation.** Opposed to the "traditional" transnational ventures (which tended to disperse their assets through multiple locations), these new transnational ventures--adapting to today's risky market environment--prefer to follow a more cautious approach to enter new markets. The typical approach is to establish, at first, trade relationships only through local agents or brokers. Later, and gradually, the next step is to move to rather flexible forms of investment like franchises, long-term contracts, or joint-ventures with local firms. These flexible combinations--frequently, corporative networks of a transnational nature--allow new risk and profit sharing arrangements, while taking advantage of the domestic firms' access to local resources and knowledge plus the expertise of transnational corporations in the organization of global markets (Handy and Epps, 1990; Giger and

O'Brien, 1989; Borner, 1986).

Laura Raynolds (1991:14) illustrates this type of transnational operations in her article on the recently created agro-exporter sector in Dominican Republic:

> Oriental vegetables, including such crops as Chinese eggplants and yenchoy, were first introduced by entrepreneurial capitalists of Asian origin who by the early 1980s had established over a dozen small export enterprises. These export firms were able to maintain relatively low levels of investment, ranging from less than US$ 150 thousands to US$ 3 million, by limiting their direct costs for land and labor. While a few firms produced part of their own supply of vegetables, most relied on production contracts with a total of 2-3 thousand peasant producers .... Through these contracts, exporting firms were able to control their produce supply and take advantage of ecologically diverse land areas, while limiting their exposure to the high production risks and heavy labor requirements of vegetable cultivation .... Oriental vegetables were shipped to brokers in the major eastern ports of the US to be sold through minority marketing connections to growing Asian migrant communities and ethnic restaurants.

The unstable nature and possible risks for "host" countries of this type of transnational ventures, are also illustrated by Raynolds' article:

> At its height in 1987, oriental vegetables accounted for roughly one-quarter of the total non-traditional agricultural export earnings of the Dominican Republic; now legal exports have virtually disappeared. The majority of oriental vegetables produced in the Dominican Republic have been restricted from entry into the US, their major market, due to a persistent failure to meet standardized import requirements .... The [Dominican Republic] has done little to respond to growing pest and pesticide residue problems in oriental vegetables .... In contrast, oriental vegetable exporting firms have acted quickly, demonstrating their production flexibility and mobility. Since firms have limited fixed investments in land or direct employment, most operations were able to close down virtually overnight. Enterprises run by ethnic minorities with few local ties had left the country within a year to set up in another Caribbean Basin country from which oriental vegetable exports are not restricted. (Raynolds, 1991:14-16)

The Role of Nation-States

Since 1971, when the US abandoned the Bretton Woods agreement, all nation-states--despite their size--were forced to adjust their policies to a now uncertain and highly unstable global scenario. Similarly, they were forced to implement their own strategies to be part of the emerging new global order. Only those powers that emerged at the end of the cold war (the US, the European Community and Japan) have the strategic capability to effectively exert some influence in the development of events.

In the agro-food sector, the design of the new rules and relations of the game at the global level constitutes one of the main components of this story [5]. The other element is the gradual development, by each one of the nation-states, of their own enlarged agricultural space; a process which, after 1982, accomplished its consolidation with the gradual shaping of the three global/regional blocs.

United States: In Search of Lost Hegemony

Rise and Downfall of the Post-World War II Agro-food Hegemony

With the purpose of fully understanding the US strategy (agro-food and general) within the current juncture, it is necessary to take a brief look at the agro-food history of the post-World War II period.

US post-war global agro-food hegemony was decided in 1947, when it was granted a GATT waiver for article 22 of the Agricultural Trade Act of 1935 authorizing protective measures against imports allegedly endangering US domestic policies. In other words, the US short-term national interest was able to prevail over the long-term international agreement to create a global economic order based on the classic free trade doctrine.

Every once in a while, however, history surprises the winners. The same GATT loophole opened by the US allowed the European Community (EC) to design its own food security policy: the Common Agricultural Policy (CAP). Results were rapidly seen. By the end of the 1960s, the EC achieved food self-sufficiency and intra-EC agricultural trade rapidly developed. The CAP, however, opened a gap in the US post-war agro-food hegemony. By the same token, it also started the US-EC agro-food rivalry to define the rules of the global agro-food markets (Friedmann, 1987, 1991; Friedmann and McMichael, 1989).

Since the mid-1960s, Japan has also become self-sufficient in rice production--its basic food staple--as a consequence of the 1961 Agricultural Basic Law guaranteeing a captive market to the Japanese farmers. However, despite this food security policy, Japan had to unwillingly accept dependence on the feed grain (especially soybeans) imports from the US. In 1973, the tension created by this double food policy (grain security/feed dependence) was manifested, when the US imposed an embargo on its oilseed exports to assure domestic supply to its poultry producers. Even though US soybean exports to Japan were never interrupted, the embargo caused panic in Japan. As a result, the protectionist legislation already in force was strengthened and a new policy for diversifying import supplies was gradually implemented, creating a new challenge to the US agro-food supremacy (Hillman and Rothenberg, 1988).

During the 1970s and 1980s, other success stories--this time within the third world--also challenged the US market supremacy in the global post-war agro-food system. First came the so-called Green Revolution, which was, in fact, a food security policy through which various Asian and Latin American countries--former grain importers--rapidly became self-sufficient in basic wheat, corn or rice staples. Second was the emergence of what Harriet Friedmann (1991, 1992) termed NACs -new agricultural countries- that became dangerous competitors with the US in important world agro-food markets[6].

As a result of these hazards, early in the 1970s, the US started designing a big-push offensive to recover its lost hegemony in these markets. In 1971, the dollar devaluation, a consequence of the Bretton Woods disclaimer, was meant to increase foreign demand. In 1972, massive grain exports to the USSR confirmed the US' intentions to strike back. At last, in 1973, the Agricultural Act, linking US farm loan rates to world market prices and providing "deficiency payments" when those prices were below a target or support level, became part of the agro-exporting offensive (McMichael, 1992; Watkins, 1991; Seevers, 1991; Kohls and Uhl, 1990).

Despite these efforts, the dollar's upsurge between 1979 and 1985--plus the hike in interest rates of the 1979-82 period--simultaneously wiped out the farmers' position domestically as well as the US market share in most agricultural commodities worldwide (Hiemstra and Shane, 1988). At the same time in Europe, agricultural surpluses continued to accumulate as a consequence of the CAP, leading the EC to finance dumping into world markets through export subsidies. In doing so, the CAP, originally a domestically-oriented food security program, became an aggressive export program, challenging once again the

US post-war agro-food hegemony.

The years 1985 and 1986 marked a turning point. In 1985, the Congress of the US passed the Food Security Act, creating an export subsidy--the Export Enhancement Program (EEP)--with well-defined economic and geopolitical goals. First, declaring a subsidy war on the EC's export dumping, the EEP made the CAP more costly thus strengthening US bargaining positions in bilateral and multilateral negotiations. Second, by targeting North African and Middle East markets (considered part of the EC's economic sphere), the program directly challenged the EC's export policy. Finally, by granting priority to target markets like the third world, China and the USSR, the program was intended to dissuade food self-sufficiency and food security policies, thus reinforcing these countries' dependence on US grain imports (Watkins, 1991; Ackerman, 1991). Complementing the EEP's export offensive, the US foreign economic diplomacy also initiated a series of unilateral pressures to open up key Asian and Middle East markets. Increasing US rice exports to Iran and Saudi Arabia, as well as recent market opening agreements with Japan (citrus and meat), and South Korea (meat), confirm these efforts (Handy and Epps, 1990; Kohls and Uhl, 1990; Grub and King, 1991).

Moreover, in 1988, the Congress of the US approved an amendment to the Trade Act of 1974 (known as Super 301), authorizing the US Government to **unilaterally** impose penalties against exports of those countries that supposedly violate US laws. Super 301 is a domestic legal artifice, without any international legitimacy, which--according to most countries--violates the principles and directives of GATT, at least as currently known.

But the key tactics of the US export offensive were the summons to the Uruguay Round of Multilateral Trade Negotiations at GATT, and the parallel bilateral negotiations to create a hemispheric free trade zone (the Caribbean Basin Initiative, the FTA with Canada, and NAFTA). The latter is both a goal in itself and a weapon to achieve a better bargaining position at GATT.

The US Strategy at GATT

In 1986, on the pretext of seemingly increasing non-tariff barriers to world trade, the US called for bilateral negotiations at GATT. Unlike previous rounds, this time the main US target was not to bargain new reductions in trade tariffs for manufactured goods. From the US point of view, trade tariffs were neither the main barrier for world trade nor the cause of its financial and trade deficit. There were two new priorities on the US agenda. One was the deregulation of "agricultural" markets, "agriculture" meaning only those commodities in which the industrialized countries had acquired competitive advantages during the post-war period (grains, oilseeds, meat and dairy products). The second was the addition of three new fields to GATT regulations: services (banking, insurance, telecommunications, etc.), foreign investments and intellectual property rights. Other significant areas of negotiation for the rest of GATT's members were conveniently declared separate "Negotiation Groups" (e.g. tropical products, natural resources and textiles). Major concessions in these areas were linked to progress in the groups of real concern to the US.

The US agricultural proposal includes:

> A complete phase out of all agricultural subsidies within 10 years, including an immediate freeze on the quantities that can be exported under subsidies; a 10-year phase out of all import barriers; [and] harmonization of health and sanitary regulations, based on internationally determined standards and processing/production methods. (Avery, 1992:25).

Excluded from these proposals were direct

subsidies paid to the farmers as compensation for lost incomes, de-linked from incentives to production or marketing; and domestic and international food aid programs.

The US proposal of adding services to the GATT agreement basically involves granting "national treatment" and "rights of presence" to foreign firms. With the negotiating groups "Trade Related Investment Measures" (TRIMS) and "Trade Related Intellectual Property Rights" (TRIPS), the US has a double-purpose; on one hand, it is trying to gain international recognition for its own royalty laws while on the other hand trying to nullify all the regulations that currently limit direct foreign investment at national or sub-national levels.

The US move could not be wiser. In a single stroke it proposes to the EC and Japan to make a common cause to get rid of the budgetary burden conveyed by their domestic agricultural policies, in exchange for direct compensation to their farmers. On the other hand, to the temperate "Southern" countries [7]--endowed with comparative advantages in these commodities, but unable to equal the generous subsidies that "Northern" countries offer to their farmers--the US offers a rapid international market liberalization in return for the opening of their domestic markets and resources (including labor force and genetic materials) to foreign investments, as well as guaranteeing royalty payment in high-tech products.

The US is playing for high stakes, but what economic and geopolitical calculus is behind this gamble? First, if its proposal is approved, GATT would become a new global regulatory framework on investments, services and technical knowledge; instead of just a multilateral agreement on trade and tariffs (McMichael, 1993). Second, the US proposes a new international division of labor, in which it will gain access to world markets for its knowledge-intensive and service sectors--precisely those activities in which the US assumes it holds the greatest comparative advantages (biotechnology, new materials, telecommunications, software, etc.), in exchange for resigning some of its international market share in "agricultural" commodities (especially grains and oilseeds). Third, GATT would become the institutional axis of a new global order in which national regulations would be subject to decisions made by a central authority controlled by the three super-states [8].

Role of a Hemispheric Bloc within the US Strategy

The North-American Free Trade Agreement (NAFTA), signed in December 1992 by the Presidents of the US, Mexico and Canada [9], clinches the US global strategy to recover its lost hegemony.

NAFTA principles and US proposals at GATT are remarkably similar. In NAFTA, the three countries accept following the same rules regarding: access to markets, tariffs, quantitative restrictions, marketing standards, support to domestic producers, export subsidies, food safety standards, and plant and animal health requirements. Depending on the product, tariffs and quantity restrictions would be eliminated immediately or gradually--from 5 to 15 years. Programs supporting domestic producers would be temporarily translated into tariffs. Food safety standards and animal and plant health requirements would be adapted to the criteria provided by the World Health Organization and FAO's "Codex Alimentarius" [10].

NAFTA also creates a new supra-national institution, the Free Trade Commission, that will supervise the execution of the agreement, decide on future reformulations and establish the rules and procedures to avoid conflicts. Concurring with similar proposals at GATT,

the NAFTA Commission will have the power to create boards of experts to solve conflicts without the mediation of any other authority or national tribunal of these three countries involved (McAllister, 1993). Regardless of the results at the Uruguay Round, NAFTA reaches, at a regional level, some of the US strategy targets at GATT.

NAFTA is a fine-tuned weapon aiming at two different targets. At a global level, the Agreement serves as a warning to the EC and Japan on the risks of delaying an agreement at GATT (Greenway et al., 1989). At the hemispheric level, NAFTA and an eventual FTA belong to a strategy aimed at reinforcing the structural adjustment programs imposed in Latin America by the IMF and the World Bank during the last decade, as well as redefining the international division of labor between the North and South American countries.

It is evident, as Pantoja-García (1993:) states, that:

> Success in the NAFTA and throughout the Western Hemisphere would in turn have increased their [US] leverage in the GATT negotiations, as European and Asian international service and financial companies would be put at a disadvantage in competing throughout the American Hemisphere.

On the other hand, a decade of structural adjustments in Latin America--frequent currency devaluations, plus deregulations of labor, financial and land markets--has been redefining each country's international competitiveness, which is based not only on geographical location criterion, but also on the downfall of actual wages.

One wonders, however, if these are the best conditions for the insertion of Latin America into the new global and hemispheric economic order currently developing. In the recent past, this experience has not been very encouraging.

As an example, let's take a look at the contradictory results of the Caribbean Basin Initiative (CBI), the first attempt by the US Government to organize a regional economic space and the only one whose impacts can be fully assessed so far. The CBI preferential trade agreement, signed in 1986, provided duty-free treatment to the exports of twenty-four Central American and Caribbean countries (Ballenger et al., 1991). In a preliminary evaluation of the whole CBI agreement, Hillcoat and Quenan (1989:57) concluded that:

> The process has not produced positive results in the external trade sector of the Caribbean economies in general.... In fact, there has been a sharp decline in CBI exports, in value terms, due to the fall of the raw material export crisis, particularly in commodities such as oil and sugar. There has been, however, a radical shift in the structure of exports and in the nature of foreign investment in the region.... While traditional primary exports fell, a vigorous upsurge of nontraditional exports occurred in products which were already exported such as textiles but which have experienced a considerable boom, or in new exports which were practically nonexistent in 1983 such as jewels.

It is true, however, that the US imports of some horticultural exports from a rather small number of CBI countries (e.g. Dominican Republic, Costa Rica, Guatemala and Honduras) rapidly grew. Nevertheless, even in these cases, the agricultural net balance has been negative. A significant element in the explanation of this phenomenon is the fall of sugar world prices. Let us consider why.

Sugar was by far the most important export commodity for many Caribbean economies. A system of quotas regulates US imports of the sweetener since 1934. After 1959, the US reallocated the former Cuban quota to other Central American and Caribbean countries,

generating an economic boom throughout this sub-region. Coincidentally, during the 1960s, the EC was becoming a net sugar exporter. At the same time, corn sweeteners and artificial sweeteners were making major inroads into the US market, particularly in the production of soft drinks. As a result, according to Nakamoto (1990:25), "CBI countries have seen their allocated quota for US sales cut by 75% between 1984 and 1988."

The issue, therefore, becomes whether non-traditional fruit and vegetable exports-- where the comparative advantages of most Latin American countries lie, according to both the IMF and the World Bank--will experience in the short-term the same fate as that which made traditional exports collapse.

It could be argued that the extreme economic imbalance between the US and the CBI countries is not a good example to illustrate the difficulties inherent to a US-centered economic bloc in the Americas. Yet, some Canadian criticisms to the Canada-US Free Trade Agreement (FTA) also point to similar concerns.

Canada's natural resources economy [11] benefits from an agreement like the FTA, which provides a secured access to the huge US market, particularly in the event of increased US protectionism (Wilkinson, 1991). From a Canadian point of view, the problem is that "[t]he US exerts much greater leverage over Canada than vice versa.... Because of its much greater size and lesser dependence on Canada than Canada has on it, the US is in the strongest position." (Wilkinson, 1991:64).

This assessment discloses the main barrier that, in my opinion, the construction of a US-centered regional bloc in the Americas would have to face. Particularly, it expresses the concerns of any less developed and politically weaker country to become more dependent on a stronger political and economic neighbor, and in the process losing its cultural identity and national sovereignty.

The European Community: Atlantic Rivalry and Construction of an "European" Enlarged Space

The European global strategy of the last decades embraces two main projects. The first is to constrain the US influence at home. The second part is to develop an enlarged space (economic and geopolitical) in its own back-yard.

The signing of the 1957 Treaty of Rome started the process. The French-German alliance aimed not only at overcoming old quarrels that divided the continent, but also at developing a domestic political coherence and economic scale capable to hinder US assets' offensive and military presence.

The Common Agricultural Policy (CAP) was part of this strategy of "domestic" security of an economic and geopolitical nature. Thus, when the US called the Uruguay Round of GATT, with the explicit purpose of resisting the European challenge to world agro-food markets by eliminating the CAP, the EC delayed the process by trying to shape it to their own interests.

What are the main discrepancies in the long conflict between the US and EC at the Uruguay Round? First of all is the approach to the international agricultural trade issues of temperate countries. Aware of the need for a truce in the subsidies war in order to reduce their fiscal deficit, the EC agreed to decrease their supply and to offer direct transference to producers to compensate their income loss. However, unlike the US extreme neo-liberal position during the past administration, the EC proposes domestic stabilization measures and multilaterally coordinated market mechanisms.

In contrast, regarding "tropical" products negotiations, the EC proposes a dramatic liberalization of international markets, except for the products (e.g. bananas, palm oil, rice and roots and tubers) in which it tries to protect preferential trade agreements with former colonies.

However, in several other areas there is an implied consensus between the EC and the US. In topics like the inclusion of services, foreign investments and intellectual property rights, a coherent common front has been developing among the three super powers versus the rest of the world.

The second European strategic goal is the reconstruction of an "European" enlarged space beyond their boundaries. During the 1970s and 1980s, through "preferential trade agreements" with their former colonies, the EC achieved the consolidation of a series of concentric layers of peripheral association with a Western European core. In 1972, the "Mediterranean policy" granted preferential market access to the North African (Maghreb) and Middle East (Mashrek) countries. Between 1975 and 1984, the Lomé Conventions created a preferential trade area, including some former Asian, Caribbean and Pacific colonies (the ACP), although excluding others [12]. In both cases, the agreements outlasted the former, ancient divisions of labor between metropolis and colony.

Agro-food relations are one of the deciding pieces of this undertaking. The "Mediterranean policy," for instance, provided duty-free access to tropical commodities like citrus, tomatoes and olive oil from countries like Israel, Tunisia or Morocco, which have an extraordinary significance in the regional geopolitical European scenario (Schraeder, 1990). The Lomé Conventions, also provided preferential access to European markets to other key agricultural products. The "sugar protocol," for instance, allocated a quota of 1.3 million tons of white sugar (or its equivalent) to different countries within those three continents. This fact did not restrain the EC from becoming a net sugar exporter, even through the re-exportation at dumping prices of the product imported from ACP countries. Similarly with the "meat protocol", Botswana, Kenya, Madagascar, Swaziland and Zimbabwe became big suppliers of the common market, although these countries complain about the EC dump the same commodity to other African and Middle East countries.

Agro-food exports also contribute to reinforcing a geopolitical presence, hampering eventual competitors. Wheat, dairy and poultry products have strengthened the European influence in Persia Gulf oil countries and Mediterranean nations (Mobius, 1988). Geopolitical interests also are frequently associated with food aid. US wheat flour sales to Egypt, after the Camp David agreements in 1978 illustrate this statement. Raikes (1988:129), for instance, claims that:

> An integral part of the US policy [in the area] is to facilitate the Egyptian government its [domestic] "cheap bread" policy, provided that in its relations with Israel it will 'honor' correct positions.

At the beginning of the 1990s, the end of the cold war and the now evident emergence of competitive blocs in America and Asia made the EC face a new predicament; should growth be "horizontal"--as proposed by Margaret Thatcher to neutralize the movement towards an increased political integration--or "in-depth" --moving forward to reinforce an authentic multinational state (e.g. Maastricht)? Who must be integrated and who must be left out is the quandary of the new European strategy. Should east European countries be integrated as member states of the Community? Or, at least temporarily, should they become associated members of an

"enlarged economic space"?

The second strategy was adopted, and between 1991 and 1992, the EC signed association agreements with Poland, Hungary, Romania and Bulgaria (The Economist, 1993). One of the most well-known outcomes of the so-called "European Agreements" was the progress made towards an agricultural "European" space. Fruits, vegetables, meat and dairy products from Western Europe gained gradual access to the common market, a 10 per cent annual increase for a period of ten years (The Economist, 1993).

Despite all these agreements, most EC agro-food trade--particularly tropical products--is not disclosed in the "formal" framework of its enlarged economic space. For instance, Brazil and Colombia are still the main coffee suppliers of the Community without mediation of any treaty [13]. There is evidence, however, that this situation might be changing. In February 1993, the European Agricultural Council resolved to establish an annual 2.2 million ton quota on banana imports from Latin American countries, granting priority to banana imports from ACP countries. This fact denotes tendencies toward the reinforcement of an enlarged European space, in dismissal of trade with the rest of the world. *Fortress Europe* vs. global opening seems to be the new European predicament.

Japan: National Security and Rivalry for the Pacific Rim Hegemony

The Second World War military defeat gave the Japanese a sharp perception of their own vulnerability as a nation, plus a powerful political will to restore their geopolitical and economic influence in world scenarios. Again, two national aims are the thread weaving the Japanese strategy into the current world juncture. First, internal security is being strengthened with the purpose of neutralizing the inherent vulnerability of the extremely limited supply of natural resources in Japan. The second aim is to reassemble the enlarged economic space most convenient to Japanese geopolitical interests in the Pacific (and globally).

The performance of Japanese negotiators in the agricultural bargaining at the Uruguay Round shows that Japan is completely aware of the US dual approach at the global level, which is to call for a complete deregulation of international agricultural markets, while the subsidy war and bilateral pressures to open Asian markets are intensified. This dual approach is a strategy addressed not only at collapsing the European CAP, but also toward opening deep gaps in Japanese domestic food security policies. Nevertheless, the Japanese negotiators' low profile scarcely conceals a strategy no less decided than the European one. Japan considers its subsidy policy to rice producers--absolutely necessary to continue the domestic supply of their basic food staple--an intrinsic element of its food security policy. Therefore, even though they unwillingly accepted an immediate subsidy freezing, they only agreed to make gradual cuts in the short-term depending on progress made in other areas negotiated. In this sense, Japan is Europeans' best ally. In contrast, at the negotiations on the insertion of services, foreign investments and intellectual property rights into the agreement, "maximalist" Japanese positions are highly supported by the US, with only some endorsement from the EC.

The other major Japanese aim-- reassembling an enlarged economic space in Asia and the Pacific rim--also brings Japan into conflict with the US, its military enemy of World War II. In this scenario, Japan intends to rebuild its former economic and geopolitical hegemony, while the US is reluctant to give up its global hegemony, which has been declining for a long time. The current agro-food restructuring

process in the Asian/Pacific region is a significant element of this story.

The post-war economic "miracle" in Japan was significantly supported by a cheap food policy--sustained by US grain and oilseeds imports at preferential costs--which aimed at obtaining a low-priced labor force with the purpose of increasing international competitiveness of Japanese industry. Aware of its shortage of natural resources, its trade deficit with the US and the geopolitical conditions of the period, Japan assumed a calculated risk by accepting dependency on US grain and oilseeds imports (McMichael and Kim, 1992).

In 1973, the US soybeans embargo gave Japan a pretext to start an agricultural supply diversification policy. This new policy made Japan less vulnerable in its food dependency on the US, while increasing its presence in regional and world markets. In short, the new South East Asian agro-exporters (NACs) and, recently, China, became major suppliers of soybeans, corn and some other agricultural raw materials cutting back the former US undisputed supremacy at domestic markets [14].

In 1986, after launching the Uruguay Round, the US started unilateral pressures on Japan to remove some restrictions on its domestic food markets. In 1990, the US obtained some unilateral opening of the Japanese market in meat and citrus, although Japan has kept so far its rice policy virtually intact and its "opening markets" regional strategy firmly in place (Grub and King, 1991; Riethmuller, 1992).

Today's US "Pacific Rim" strategy highly contrasts with Japan's global/regional hegemonic project. From a US perspective, worldwide sluggish growth, Japan's large trade and financial surpluses, and the South East Asian NACs are the pretext to stress the economic opening of exports to US goods and services in order to reestablish a delicate balance.

On its own, the Japanese state tries to recycle its trade and financial surpluses boosting intra-regional trade [15]. However, Japanese initiatives in the region are not without hindrance. Most Asians still remember Japan's aggression in World War II and therefore feel threatened by the eventual emergence of a Japan-centered bloc. However, whether a formal bloc is created or not is largely irrelevant because a *de facto* trading bloc is already developing (Nanto, 1990).

In particular, Japan's food processing enterprises and its general trading corporations (*sogo sosha*) have played major roles in the emergence of the ASEAN [16] NACs (cf. Cooper, 1990; Langhammer and Rieger, 1988). The increase in Japan's high production costs with each yen revaluation, together with ASEAN countries' low wages, cheap natural resources and geographic proximity, are incentives for Japanese food firms to establish production facilities abroad, basically geared toward exporting the Japanese market. The Japanese government also actively encourages these trends through tax rebates, subsidized loans, and the provision of technical inputs by state-owned research institutes (Pearce, 1987; Fransman, 1988; Goodloe and Normile, 1988; Nanto, 1990; Riethmuller, 1992).

Thailand is probably the best South-East Asian success story of a farm-based export-oriented growth strategy. During the 1960s, Thailand became the world's leading exporter of rice and in the mid-1970s of cassava. In the 1980s, however, increased market protectionism and lower commodity prices encouraged government initiatives to provide incentives for joint-ventures with foreign capitals to boost non-traditional exports, mainly addressed to the Japanese market [17](Langhammer and Rieger, 1988, Barghouti et al., 1990, Riethmuller, 1992).

In addition, Australia and New Zealand, being left out of the large regional blocs, are

re-designing their economic strategies and re-orienting their exports toward Japan and its enlarged economic space. As a result of these policies, today--in spite of US export subsidies--Australia shares the Japanese wheat market with the US. In 1988, trade agreements signed by Japan, Australia and the US, prompted Japanese investments in feed lots, slaughterhouses and processing facilities in Australia geared to South and South East Asian markets. This trend stirs concern among some Australians about their country's future role as a provider of cheap raw materials within an emerging Japan-centered regional bloc (Hayes et al., 1991).

Conclusion

Finally, I would like to pull out some theoretical considerations and obtain possible practical implications of this long trek through the recent history of agro-food restructuring. International markets are not, as suggested by theoretical statements, self-regulated mechanisms determined by abstract supply and demand rules. They are institutions actively built-up by the main social agents of each historical period. In particular, since the end of World War II until this point, world agro-food systems have been the result of deliberate actions of nation-states and powerful transnational capitals. Also, to some extent, world agro-food systems have been the non-intentional result of the complex interaction of previously mentioned deliberate actions.

At the current juncture, if the European Community--particularly France--is successful in its efforts to nullify, or at least lessen, the market liberalization proposed by the US at GATT, it is highly feasible that a long period of neo-protectionism based in three large blocs will shape the new world order (cf. Constance et al., 1992). On the contrary, if GATT reforms--as proposed by the US--are approved, the ATNCs will have much more favorable conditions to move their capital to whatever region or location of the world in search of lower production, financial and trade costs damaging any other social, environmental or political consideration (Commings, 1992).

Within this framework, multilateral development agencies and the US promote a free trade doctrine according to which all countries will be favored specializing in those export commodities for which they have short-term comparative advantages, while purchasing abroad foreign goods and services that cannot be "efficiently" produced domestically at a lower cost.

Food, however, as found out by Japanese and Europeans not long ago, has a strategic significance that goes beyond short-term economic "efficiency". It is connected to society's relationship with nature, to the survival of cultural values that might be dear to a nation, and--definitively--to a society's ability to control its own destiny. Therefore, supposing that the "free play" of market forces should determine the allocation of resources among the economic activities--particularly in such a strategic sector as the agro-food relationships--is not only naive but suicidal. Paraphrasing Robert Reich (1990), President Clinton's Economic Assistant: "To clearly establish our priorities requires an essential change in our way to view things...."

Notes

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2. Harriet Friedmann's (1982, 1991, 1992) seminal works on international food relations

identified two "food regimes" during the 20th century. The first, based on grain and meat exports from the settler states (US, Canada, Argentina, Australia, New Zealand), started to displace tropical exports, and along with them, the previous colonial system between 1870 and 1914. The second regime, sponsored by the US, gave rise to a "durable foods" complex, to the "intensive meat production" complex, and to the dumping of food surpluses throughout the world under the disguise of food aid programs.

3. It is important to point out that currently 85% of the world grain market (feed grains and oilseed) is handled by six big corporations: Cargill (US), Continental (US), Louis Dreyful (France), André/Garnac (Swiss), Bunge & Born (Brazil/Argentina) and Mitsui/Cook (Japan) (cf. Friedland 1991).

4. It is important to notice that these two latter firms, anxious to diversify their investments in the tobacco industry, became leading agro-food corporations (ILO, 1989).

5. Harriet Friedmann names this group of rules and relationships a "food regime" (cf. Friedmann, 1992:1)

6. Thailand, for instance, became the world's leading rice exporter and the largest cassava exporter for livestock feed; while Brazil beat the US in the leadership of the soybeans and frozen concentrated orange juice markets.

7. Associated in the Cairns Group are Australia, New Zealand, Argentina, Brazil, Chile, Uruguay, Colombia, Fiji, Indonesia, Malaysia, the Philippines, Thailand, Canada and Hungary. Note that these last two countries are not geographically located in the Southern Hemisphere; however, they share similar concerns with the rest as non-subsidizing agricultural exporters.

8. This statement coincides with Arthur Dunkel's (former GATT General Director) 1991 proposal, in which he suggests creating a World Trade Organization to guarantee the accomplishment of new agreements. In this document Dunkel particularly emphasized a proposed mechanism to solve conflicts in the heart of the institution. Under this proposal, decisions would be made through boards of experts appointed *ad hoc*, who could only be revoked unanimously by all the members of the organization.

9. At the time of writing, it was not sanctioned by the corresponding Congresses.

10. The Codex establishes standards of voluntary accomplishment by the signing countries; standards that according to US environmentalist groups and consumer associations are below those adopted by the different national regulating organizations.

11. According to Cohen (1991:88), "natural resources account for about one-half the value of all (Canadian) exports."

12. Well-known cases of exclusion were Australia and New Zealand in the Pacific, Canada in North-America, and India and Pakistan in Asia.

13. This commodity is equivalent to 30 percent of the EC agro-food imports.

14. Nevertheless, these changes should not be overstated. The US continues to be a major supplier of wheat, corn and soybeans to Japan, but the US agro-food preeminence in post-war Japan seems to be an episode of the past.

15. Take, for instance, the New Asian Industries Development Plan, sponsored by MITI, and the ASEAN Development Fund addressed, respectively, to East and South East Asia (cf. The Economist, July 15, 1989).

16. South East Asian Economic Cooperation Agreement, signed by Singapore, Malaysia, the Philippines, Thailand, Indonesia, and Brunei.

17. Exports of canned pineapples, frozen fruit and vegetables and dried fish became important foreign currency earners for Thailand.

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■

RESUMEN

Reestructuraciones mundiales de la agricultura y la alimentación: el papel de las transnacionales y los grandes Estados

El objetivo de este artículo es explicar los simultáneos procesos de globalización y regionalización particularmente en el sector agroalimentario. El artículo provee una explicación no-economicista de este doble proceso. Una explicación que enfatiza la compleja interrelación entre los factores geopolíticos y los geoeconómicos. La actual reestructuración mundial es vista como el resultado tanto de las estrategias y acciones deliberadas de los grandes estados y de las empresas transnacionales como de los resultados no-intencionados de sus múltiples interrelaciones.

***Luis Llambí** es Profesor Asociado (Investigador) del Instituto Venezolano de Investigaciones Científicas (IVIC) en Caracas. Es autor de **La Moderna Finca Familiar** (1988) y de numerosos artículos en publicaciones académicas tanto de lengua inglesa como castellana.*

Globalización y Estrategias Empresariales en la Fruticultura: Sus efectos en los Pequeños Productores

Mónica Bendini y Marta Palomares

Este artículo indaga el alcance teórico del concepto de globalización centrándose en sus particularidades en la etapa actual del capitalismo monopólico y los concomitantes procesos de desintegración que aparecen. Se analiza la expansión económica de la actividad frutícola en la zona del Alto Valle del Río Negro caracterizada por la existencia de una franja irrigada en la que predominan las explotaciones de frutos de pepita (manzanas y peras) y las distintas etapas del modelo de acumulación dominante. Se trata de establecer una categorización de empresas agroindustriales en función de las estrategias que implementan en un mercado cada vez más restringido y concentrado. Asimismo, se analiza por un lado, las formas de articulación del capital internacional con las empresas de base nacional y, por otro, las relaciones que se establecen con una base extendida regional de pequeños productores.

Mónica Bendini es Profesora titular de sociología y coordinadora del Grupo de Estudios Sociales Agrarios de la Facultad de Derecho y Ciencias Sociales de la Universidad Nacional del Comahue (Argentina). Ha investigado temas sobre la metodología de diagnóstico y estudios de caso, el campesinado de altura y la agroindustria frutícola. **Marta Palomares** es Investigadora del Centro de Estudios y Promoción Agraria (CEPA) y asesora de la Dirección General de Cooperación del Ministerio de Relaciones Exteriores, Comercio Internacional y Culto (Argentina). Muy recientemente ha investigado y publicado estudios sobre mujeres rurales y la agroindustria frutícola.

La globalización, su alcance teórico

En los últimos años diversos autores se han ocupado de precisar el alcance teórico del concepto globalización en el discurso económico-político.

Para Mustafá Koc la globalización no es simplemente una construcción teórica sino que implica procesos históricos concretos y la interpretación ideológica de los mismos. A pesar de su reciente aparición como vocablo, este fenómeno, en tanto proceso, es inherente al desarrollo capitalista con especificidades en cada fase del mismo.

> ...las dinámicas de acumulación, los agentes de expansión y sus oponentes no han sido siempre los mismos. En cada fase del desarrollo del capitalismo diferentes regímenes de acumulación y modos de regulación han modelado los patrones de expansión. Las dinámicas de los diferentes escenarios del desarrollo del capitalismo o de los regímenes de acumulación no fueron simplemente determinados por las leyes específicas del proceso mismo de acumulación. Más bien las condiciones de acumulación han sido redefinidas y renegociadas en forma continua por los distintos actores sociopolíticos a nivel nacional e internacional. (Koc, 1992:3).

Koc analiza las particularidades de este fenómeno en cada una de las etapas del capitalismo, a los fines de este trabajo nos centraremos en la fase industrial monopólica y

en los alcances de la globalización en el actual discurso neoconservador. Los actores más dinámicos de esta fase son las corporaciones internacionales que desarrollan estrategias globales de acumulación con las ventajas de la movilidad de los factores de producción de los mercados.

La fuerza globalizante actual conlleva a una gran concentración de los flujos de capital productivo y financiero en determinadas áreas geográficas y a una sincronización de las producciones de valor a nivel mundial a través de un sistema informático y de comunicación que transmiten en tiempo real toda la información para que ello sea posible (Matellanes, 1993).

No obstante, en los mismos escenarios en que estas fuerzas globalizantes se desarrollan, aparecen procesos de desintegración (desagregación política, conflictos étnicos) como resistencia a la "homogenizante indiferencia de la globalización" (Koc, 1990:12).

En los países desarrollados, las políticas asociadas al proceso de globalización comienzan a ser revisadas indicando un retroceso de la hegemonía discursiva y política del neoliberalismo (crisis del compromiso social de las fuerzas de coalición y del consenso político).

En los países periféricos y semiperiféricos (Wallerstein, 1974) la transición del populismo proteccionista y estatista al neoliberalismo ha sido relativamente rápida y brutal en sus consecuencias sociales con falta de redefinición del compromiso social y ausencia de respuesta estatal para problemas planteados en la agenda social (Franco y Sojo, 1992).

En la Argentina no se cuestiona la inserción en la economía mundial. Pero no hay una forma de inserción predeterminada, la inserción es un espectro de inserciones, y cada inserción tiene una dinámica industrial que le es propia y una dinámica política y social que también es propia lo que está explicando el carácter diferenciado y hasta contradictorio de la globalización.

Si bien la industria de alimentos, y, en este caso la fruticultura no está ampliamente trasnacionalizada como la industria automotriz, se pueden distinguir, siguiendo a Friedland, tres segmentos o sectores básicos: 1) productores (son aquellos que directamente producen el producto), 2) comercializadores -marketers- (son aquellos que entregan el producto directamente al consumidor) y, 3) distribuidores o intermediarios (los que se encuentran en un proceso diferencial de globalización). Sólo el segmento de los distribuidores está verdaderamente trasnacionalizado, los otros dos sectores muestran algunas tendencias de trasnacionalización de carácter más regional (Friedland, 1992:1).

En el caso de la fruticultura argentina debe llerse el segmento de distribuidores incluyendo a los agentes de acondicionamiento y conservación, e industrialización.

La actividad agroindustrial frutícola de pepita (manzana y pera) ha sido durante las últimas décadas una de las actividades productivas más dinámicas del país, desarrollándose principalmente en el Alto Valle del Río Negro[1].

La agroindustria frutícola y los sujetos sociales

Como en otras zonas frutícolas de la Argentina (Bajo Paraná, Cuyo), en su génesis, la actividad productiva en el Alto Valle ha estado caracterizada por el uso intensivo de mano de obra y por una estructura productiva predominantemente familiar. La penetración del capitalismo en la fruticultura no ha sido homogénea, imponiendo en cada zona distintos ritmos de expansión siendo mayor en

aquellas zonas cuya producción se halla vinculada al mercado externo. Los sectores sociales articulados al comercio internacional se constituyen entonces en el elemento dinamizador del proceso de expansión (Bendini y Palomares, 1990).

Este proceso de expansión económica[2] de la actividad frutícola en el Alto Valle no ha sido homogéneo. Más allá del grado de diferenciación en la estructura agraria preexistente, se desarrollan con nitidez, a partir de principios de los 70[3], nuevos procesos de diferenciación social en el sentido de desaparición y descomposición de sujetos sociales y surgimiento de nuevos. Estos nuevos sujetos están asociados a la integración vertical y horizontal y a la creciente concentración agroindustrial. El surgimiento de los "fruticultores" (fruteros o intermediarios integrados) además de los "chacareros" (medianos y pequeños productores primarios) como sujetos empresariales con connotaciones específicas se traduce asimismo en la aparición de organizaciones gremiales nuevas y diferenciadas como expresión de las distintas fracciones (Bendini, 1990).

En la década de los 80 se profundiza el modelo y comienza la de los 90 con fuerte incorporación no generalizada de tecnologías de punta, transformaciones en la organización del trabajo, crisis en los mercados e indicios de un cambio en el modelo frutícola.

En el estudio de la estructura agraria del Alto Valle, resalta históricamente la presencia de un sujeto social "el chacarero" que originariamente facilitó el desarrollo del capitalismo de principios de siglo a partir del corrimiento de la frontera agropecuaria por campañas militares y de la penetración del capital británico en infraestructura, tecnología y distribución. Es desde fines de los 70 cuando el chacarero como sujeto se encuentra erosionado en sus posibilidades de expansión y en una crisis permanente que sortea coyunturalmente a través de estrategias de sobrevivencia (arriendo, venta de fruta de descarte a industria, diversificación productiva, créditos). Sin embargo, su presencia como productor primario es predominante (constituyen el 70% de los productores y producen el 50% de fruta de pepita)

A los fines de desagregar la categoría empresarial "fruticultores" pueden señalarse en términos de empresas:

1) Las empresas regionales frutícolas medianas o altamente integradas (la secuencia en el tiempo de estas empresas es la siguiente: importador/exportador de fruta, frutero -compra de fruta a terceros-, instalación de empaque y frigorífico locales e integración hacia atrás, actualmente en expansión a nuevas zonas).

2) Las empresas trasnacionales de desarrollo reciente relativamente con menor integración hacia atrás. entre ellos, merece especial atención el caso de una empresa argentina exportadora líder, que formada en la década de los 70 como exportador de fruta comprada a terceros, a partir de 1987, mediante acuerdos tipo joint ventures con empresas trasnacionales que le abren las puertas al mercado europeo a través de la cadena de supermercados minoristas, se expande en forma acelerada concentrando importantes volúmenes de producción e incorporando otros rubros frutícolas y hortícolas a nivel nacional. Esta expansión se extiende hasta la participación en la adquisición de uno de los puertos de salidas de frutos del país. Unas pocas empresas trasnacionales controlan aproximadamente el 18% de las exportaciones de fruta fresca de pepita.

Modelos de acumulación y estrategias empresariales

Aumentos en la productividad

En tanto agroindustria dinámica, el

aumento de la productividad es creciente pero diferencial en cuanto a su periodización y a su alcance.

En la producción primaria el período 1960-76 es relativamente el más significativo en torno a esta estrategia de expansión como orientación empresarial. La producción de manzanas y peras se triplica en ese período en tanto que la superficie cultivada se expande en aproximadamente un 40%, mientras que los volúmenes destinados a exportación aumentan en un 50%. La productividad de la mano de obra en la producción primaria se duplica en ese lapso para luego mantenerse constante hasta la fecha. En el empaque puede suponerse un comportamiento similar si bien no se cuenta con datos confiables para la década de los 70, la información para la década de los 80 nos revela un incremento constante de la productividad de la mano de obra, destacándose el período 1986-1990[4] y en el frigorífico dicho aumento se registra más significativamente entre los años 1975-1979 coincidiendo con la consolidación de la integración acondicionamiento y conservación en frío (galpón de empaque-frigorífico).

No obstante estos aumentos en la productividad del sector no fueron uniformes. Un análisis comparativo de los datos estadísiticos entre 1981-1991 revela que para esta década se tiende a estabilizar los volúmenes de producción y sin embargo la renovación de tecnología en producción primaria es notoria. Se observan cambios varietales, se extienden los sistemas modernos de conducción, y principalmente, se incorporan paquetes tecnológicos para el manejo del monte. "No podemos apreciar un gran desarrollo del área plantada en la última década pero las cifras del Censo de 1981 ya indicaban lo que ha venido sucediendo durante la década: la acelerada reconversión frutícola en orden a la situación varietal y de las técnicas de conducción...Este cambio se ha acentuado por lo que tenemos un sustancial aumento de la producción sin haber crecido el área plantada. No podemos hablar de aumentos en la productividad global, porque a medida que se convertían los montes en alta densidad se registraba un proceso negativo para quienes no asumían este cambio y continuaban con el monte tradicional: la mayor productividad mejoraba la relación costo/precio, los productores más eficientes podían mantener un nivel de precios aceptable para la industria y el empaque pero este nivel era ruinoso para quienes no habían logrado reconvertir."(Miquel, 1992:59) Como señala el autor citado este proceso ha sido selectivo, sólo los productores más capitalizados, en su mayoría integrados, pudieron invertir en la reconversión.

Profundización del proceso de integración

Si bien el proceso de integración agroindustrial se inicia a fines de 1960, es en la última década de los 80 cuando se consolida la integración con un alto grado de concentración empresarial especialmente en las tareas de acondicionamiento y conservación.

A fines de la década del 70 las diez firmas frutícolas líderes en exportación donde predominan las que integraron desde la producción primaria hasta el comercio exterior, comercializaban el 40% de los volúmenes de peras y manzanas destinados al mercado externo. Las cifras del período 1985-88 señalan que esa misma fracción de las remesas al exterior fueron cubiertas por las primeras cinco empresas en el ranking de exportadores (GESA, 1992).

La integración vertical que implica, según Cariola y Lacabana "la participación de un agente social en dos o más etapas del sistema, en una forma de inserción múltiple que, como tal, aumenta las posibilidades de acumulación" (Soverna, 1990), comenzó a generarse a partir

de la década del sesenta.

Por otra parte, la agricultura de contrato también presente, permite una articulación entre productores primarios y empresas agroindustriales sin borrar la independeucia jurídica de los actores involucrados. Mediante este mecanismo las empresas industriales controlan los aspectos decisivos del proceso de trabajo y las condiciones de la producción sin asumir directamente los riesgos de la producción agrícola.

En los sectores de acondicionamiento y conservación, a pesar de que cada uno requiere una división técnica del trabajo específica, se inició en los 70 y se generalizó en los 80 la vinculación técnica de ambas etapas funcionando como una unidad de producción. La industria de jugos vino a absorver el creciente porcentaje de fruta de descarte derivado de los sistemas más estrictos de clasificación en un primer momento, y luego su crecimiento alcanza un apogeo con la descapitalización de los pequeños productores (fines de los 80 y primeros años de los 90).

La siguiente cita corresponde a las declaraciones de un dirigente gremial del grupo de los empresarios integrados regionales y expresa la necesariedad de la integración e inviabilidad económica del pequeño productor independiente o aislado "Podemos afirmar entonces que la producción y exportación de frutas se ha convertido en una actividad que remunera excelentemente a los factores que intervienen en el proceso integrado desde la producción hasta la comercialización externa, pero rinde pocos recursos para la producción en sí" (Miquel, M. 1992:59).

Expansión a nuevas zonas

Como fenómeno reciente de la orientación empresarial y acompañando las dos estrategias que se mencionaron anteriormente, se observa el desarrollo de grandes explotaciones hacia zonas no tradicionales (tierras no cultivadas anteriormente) en donde se han instalado establecimientos frutícolas de grandes dimensiones con incorporación intensiva de capital (tecnología de punta y diversificación tendiente a la canasta frutícola), y con un alto grado de integración. Si bien es un fenómeno iniciado por empresas líderes afincadas en la región (regionales y trasnacionales), en la actualidad ha concentrado a capitales altamente concentrados y diversificados de orden nacional.

No hay estudios ni datos estadísticos suficientes que proporcionen información acerca de las economías de escala a nivel de explotaciones de gran tamaño en esta actividad productiva.

Algunas consecuencias sobre los pequeños productores

La consolidación del modelo agroindustrial en la fruticultura de pepita ha provocado una subordinación diferencial de los pequeños productores a la etapa industrial.

Si bien en el período de xpansión general de la actividad, los pequeños productores se capitalizaron y modernizaron, el ritmo de acumulación no fue suficiente como para permitir un salto cualitativo de "chacareros" a "fruticultores".

Los beneficios de la expansión, por lo tanto, fueron apropiados por los empacadores y productores integrados quienes al integrarse hacia atrás por compra o arrendamiento de tierras debilitaron el poder de negociación de los pequeños productores[5]. Asimismo, estos últimos se ven obligados a comercializar sus cosechas en forma individual y aislada en un mercado de primera venta oligopólico obteniendo precios residuales y efectivizados a través de formas de pago que suelen ser desventajosas ya que los mayoristas e industriales suelen tomarse largos plazos para efectuarlos, obteniendo beneficios adicionales provenientes del deterioro del dinero (Bilder y Zambón, 1990).

A su vez, los requerimientos de calidad del mercado externo han llevado a los empacadores y exportadores a modernizarse tecnológicamente disputándose la fruta comprada a terceros y seleccionando a los mejores oferentes; lo cual se convirtió en un factor diferenciador entre los productores primarios. Al elevarse los requisitos de calidad, aquellos productores que por insuficiente acumulación de capital no acompañaron este requerimiento mediante adopción tecnológica iniciaron un proceso de erosión cuyos indicadores actuales son: falta de rentabilidad, notable retraso tecnológico, y acentuado proceso de descapitalización.

Desde el punto de vista productivo estos productores se caracterizan por: poseer plantaciones viejas y con sistema tradicional de conducción, no disponer de variedades y clones requeridos, tener bajos rendimientos y altos costos de producción, haber reducido drásticamente las labores culturales básicas (Castello, 1990). De este modo, entre el 50% y el 80% de su producción es calificada como descarte por los procesadores o es remitida por el productor directamente a la industria (principalmente jugos) con precios relativamente menores al de la fruta fresca.

Concomitantemente a la subordinación al capital industrial, se observa un proceso de marginalización del trabajo familiar en las chacras (Figuereido, 1989); hay una falta de incentivo en los hijos de productores para continuar en la actividad. Esto ha generado migraciones a las zonas urbanas y desatención de las explotaciones, su arriendo o venta.

En este momento el sector frutícola de pepita está atravesando una crisis coyuntural que combina descenso en la demanda externa y bajos precios relativos agravado con condiciones climáticas adversas. En las crisis frutícolas anteriores, el sujeto social que soportó en mayor medida sus consecuencias fue el pequeño productor. La singularidad de la crisis actual es que el pequeño productor no se ve eximido de sus efectos pero también afecta a los empresarios, segmentándose al interior, y a los trabajadores, con un gran deterioro de sus condiciones de trabajo.

El modelo agroindustrial empresarial descrito muestra sus deficiencias más allá de la modernización tecnológica en términos de estrategias de comercialización y competitividad, de integración no sistemática y sin consideración precisa de las economías de escala, sumado a falencias organizacionales de gestión y administración empresarial. Si bien es difícil precisar los alcances y salida de esta crisis, la opinión del conjunto de los actores sociales individuales y colectivos incluyendo el Estado coinciden en señalar los límites del modelo" ...la del 93 fue la última cosecha de un modelo (económico) que se agotó" (caracterización hecha por el Ministro de Economía de la Provincia de Río Negro, Diario Río Negro, 1993:9).

Desde el estado provincial, se está proponiendo un modelo de concertación frutícola entre empresarios agroindustriales, pequeños productores y trabajadores, que en alguna medida excede lo meramente productivo y muestra los límites de la política neoliberal. Ante la magnitud de la crisis que amenaza con pulverizar la estructura productiva de la región aparece la intencionalidad del estado provincial con una respuesta de compromiso social.

Desde los pequeños productores se espera que el nuevo modelo supere la defensa de la economía regional en su conjunto garantizando su inserción en condiciones de negociación más transparentes. Las alternativas de sobrevivencia de los chacareros en tanto pequeños productores están supeditadas a la existencia de crédito subsidiado para la reconversión productiva (mejoramiento o diversificación) o expansión de la agricultura por contrato con las empresas

transnacionales y con las regionales que superen la crisis.

Notas:

1. La producción de los cultivos de pera y manzana en la región representa el 74% y el 85% respectivamente de la producción nacional.

2. En tanto expansión cuantitativa como profundización del proceso de acumulación a través de la integración de las etapas de producción agraria e industrial (GESA, 1992).

3. En la década de los 70 se consolida el modelo frutícola agroindustrial coincidiendo con la máxima expansión en términos de volúmenes de producción y difusión de innovaciones técnicas a lo largo de todo el circuito.

4. Se incrementan las exportaciones de fruta embalada en un 113% entre 1986 y 1990. En ese mismo período se redujo el porcentual de trabajadores en un 23%, lo que significó una disminución de 2800 puestos de trabajo y su productividad aumentó en un 176% (GESA, 1992).

5. En la actualidad las empresas posicionadas en los diez primeros puestos tienen un alto porcentaje de producción propia, por ejemplo: Tres Ases posee 40% de fruta de su propia producción; McDonald, un 50%; Zettone y Sabag, entre un 80% y 90%; Kleppe 90%; Gasparri 90%; Moño Azul, entre 50% y 70%; Estrella Alpina 60%; Expofrut 60%. Se consolida de esta manera su poder de negociación entre los pequeños productores (GESA, 1992).

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ABSTRACT

Globalization and Production Units' Strategies in the Fruit and Vegetable Sector: Their Effects on Small Producers

This article investigates the theoretical importance of the concept of globalization. The task is accomplished by focusing on some of its characteristics in the current monopolistic phase of capitalism and concomitant emerging processes of disintegration. The economic expansion of the fruit and vegetable sector in the area of the Alto Valle del Rio Negro is analyzed. The case of the Alto Valle is characterized by the existence of an irrigated area in which the production for export of eggplants and pears is dominant. Production units are classified according to the strategies they adopt in an increasingly constricted and concentrated market. Finally, the forms in which international capital interacts with both national enterprises and small producers are illustrated.

Mónica Bendini *is professor of sociology and coordinator of the Group of Social Studies in Agriculture of the National University of Comahue (Argentina). She has investigated topics concerning quantitative and qualitative methodologies, peasants in the high lands and the fruit agro-industry.* ***Marta Palomares*** *is Researcher at CEPA (Center for Agricultural Studies and Development) and advisor at the General Headquarters of the Ministry of Foreign Affairs, International Commerce and Cult of the Republic of Argentina. Recently she has studied and published in the areas of rural women and the fruit agro-industry.*

New Tastes in Industrialized Countries and Transformations in the Latin-American Countryside: An Introduction to the Local Cases of Mexico and Chile

Alberto M.G. Arce

The recent reemergence of agriculture as one of the most dynamic sectors of the Latin American economy has once again stimulated research interest in the rural sector. Of particular contemporary interest are the social and political effects of the new export agriculture at the local level. This paper explores the relationship between the social demand for fresh fruits and vegetables from the North and the variable responses of actors and localities engaged in the production of food. It takes the production of new agricultural exports in Mexico and Chile as examples of the ways in which commodity circulation is re-organizing everyday practices while assessing some of the social consequences. The new rounds of interconnectivity between the South and North present opportunities to develop a more comprehensive analysis which includes spatial, cultural and social variability as one of the characteristics of the globalization tendency in agriculture. In conclusion, the paper presents some cultural, social and political issues surrounding the process of fruit and vegetable globalization and the significance of studying social discontinuities in rural sociology.

Alberto Arce is Lecturer in the Sociology of Development at the Agricultural University of Wageningen, the Netherlands. Some of his recent publications include a chapter co-authored with Norman Long, entitled "Bridging Two Worlds: An Ethnography of Bureaucrat-Peasant Relations in Western Mexico" in Mark Hobart's *An Anthropological Critique of Development, The Growth of Ignorance.*

Introduction

We are living in an increasingly diversified and commodified rural world. Rural areas in the South have traditionally been regarded as 'mirror images' of the main centers of economic growth, and following opposite social and economic processes. This paper questions this assumption. Exploring the cultural character and the social implications of recent agricultural demands in the industrialized countries, and the social and physical space transformations of some Latin American countries, this paper will address the issue and nature of the globalization of agriculture, its local manifestation, and the translation of this process by local actors.

The new production of agricultural commodities in Latin America has been part and parcel of the restructuring process affecting the world in the last decade under the rubric of structural adjustment and liberalization policies. No new and improved agricultural reality has emerged, however, from the character of the local transformations; on the contrary, a debate has emerged over how we should characterize this new scenario.

At this early stage in our thinking, the precise nature of the connection between concepts, and how these processes affect the local level, cannot be predicted outside the specificities that link the contemporary cultural transformations and the politics of value of

commodity exchanges required in the present situation. This paper is thus concerned with the changing of patterns of consumption in industrialized countries and the cultural representation of what is natural in agriculture. Recently, however, the demand for fruits, vegetables and quality agricultural products from the industrialized centers of consumption have subordinated third world localities into new consumption markets. The character and nature of this incorporation is very much the focus of a set of fundamental research questions garnering political and academic attention in rural sociology (see Llambi, 1990; Arce and Marsden, 1993).

In this paper I will argue that the new agricultural globalization process is not necessarily leading rural localities into the uniformity of production predicted by the followers of the internationalization school (Sanderson, 1986). Instead, this 'new style' of export agriculture seems to become an important element in the 're-localization of rural localities' and in the diversified social and physical patterns surrounding export agriculture.

Farmers are confronted by an entirely different kind of consumption pattern, characterized by fragmentation of markets, different forms of production and quality, diverse delivery access points and complex and diverse sets of genetic and biotechnological reconstituting processes involving freshness, color, shape and size. These constitute a quasi-invisible trend, since it shows the transformation of agriculture from the production of a standardized commodity to the art of using the quality and 'content' of agricultural knowledge to add value through the naturalization of these commodities rather than their industrialization. Exotic agricultural products, such as grapes, avocados and passion fruit have acquired an immediacy for the consumers in industrialized countries, while they maintain an essence of distant novelty and a segmented all year around quality market in America and Europe.

The places of agricultural consumption (supermarkets, restaurants, shopping centers etc.), influence the coordination of production time and actively encourage diverse styles of farming to satisfy specific segments of the food market. The ideology of healthy eating is spread through the diffusion of knowledge from food market places, and the use of 'intelligent shelving'. At the same time, the environmental effects in supply agricultural areas, and the variability of organizational forms of local enterprises, as well as the transformations in the labor market and the conditions associated with land based production, are all distanced processes that are presented in the West as a 'new' phase of agriculture development. These processes, conveniently detached from the social effects of commoditization at the local level, usually concentrate on the reconfiguration of time and space to supply consumers with a reliable all year around agricultural commodity. In brief, our perception of contemporary agrarian transitions in Third World countries should take into account the global demand for new agricultural products, local differential responses and the social effects of this restructuring of agricultural production-consumption in the social construction of our contemporary representation of food.

The issues introduced here demand considerable theoretical and empirical depth of treatment and debate. What becomes important here are the ways in which the study of food consumption in industrialized countries helps us to explain some of the contemporary social processes of rural re-localization in an era of agricultural globalization. In particular, it allows a focus upon the changing nature of social consumption, production and marketing in industrialized and Third World societies and as well as a concentration upon the ways in which global processes connect cultural and

social transformations associated with agriculture. This paper intends to start to explore these issues albeit in a limited way. The first part of the paper deals with some key issues of the cultural context and nature of exchange of the new agricultural commodities in industrialized countries. In the second part, the impact of export-oriented agriculture in Chile is explored. In the third part a case study from an irrigated area of Jalisco, Western Mexico is used to show the diversity of local responses to agro-export demands. Finally, the paper concludes with some remarks on how to characterize these uneven global processes and local differential responses of contemporary agricultural transformations.

Supermarkets, Fresh Vegetables and Fruits: The Social Construction of the Food Market

Cathedrals, monuments, and buildings such as train stations, hotels, malls and market places, have a direct impact on people's actions and conduct. At the same time they have a discursive influence on how we construct a world view and our cultural practices. Likewise, the new agricultural demand for fresh vegetables and fruit in industrialized countries has its cultural context in the supermarkets.

The overall pattern of UK consumption of fresh vegetables and fruits has shown an upward trend since the 1970s, contributing significantly to a widening trade gap in the early 1990s, and a concomitant downward trend in the consumption of beef and veal, which fell by 19% between 1980 and 1986. Fiddes (1990) recently suggests that these changes can only be understood in relation to "the cultural context of the ideas that inform individual actions." He argues that food selection is an ideological process (1990:230). Changes in consumption are contextualized in the ideas and awareness of people. Therefore, the question here is what are the organizational transformations and key ideas that have triggered such changes in consumption patterns.

The restructuring of patterns of food consumption has to do with how the social disjunction between food, culture and politics has been linked, reorganized and packaged in industrialized societies by institutions and actors. This contextual transformation has coincided with the reconstruction of the old market and retail trade contexts. In industrialized and middle income countries more people now purchase their food from supermarkets. Supermarkets have reinforced the importance of consumerism in modern societies; this relatively new consumer environment has the characteristic of presenting an abundance of choices, and unlimited possibilities for shoppers to display their lifestyle and taste for food (nutrition, kitchen store capacity, etc.). This new cultural context has facilitated a situation where consumers' choices are not just directed to saving money but in general to allowing them to superimpose on the market their high, or low, standards of quality. In this sense, within this new cultural context of shopping, food purchases are associated more and more with the quality of life of consumers.

Clunies-Ross (1990), examining the production of organic food in England, argues that although supermarkets do not pay high prices for products, and their 'cosmetic quality' demands are very strict, for producers they offer the advantage of selling a large quantity of their products. Most fresh vegetables and fruit from Latin America are marketed through such supermarkets. Supermarkets, with their techniques that stimulate consumer choice through advertising and diffusion of knowledge, have been in the forefront of the fresh vegetables and fruit market expansion in Europe and America (Wrigley, 1992). Supermarkets have decided that, in order to refor-

mulate the value relations between changes in pattern of consumption, taste, knowledge and price, they have to produce evidence of the variations of the product, catering for the individual character of consumer choice. Wine is a good example of how supermarkets have socially constructed specific situational niches for individual choices.

The strategies of supermarkets in England have been very influential in encouraging people to consume fresh vegetables and fruits. Nevertheless, it must be underlined that consumers cannot be considered passive subjects, who simply respond to advertising inputs. The extent to which various consumer organizations have emerged in Europe to demand a safer and better quality of food shows that the process is interactive. Supermarkets make strict demands on farms, processors and distributors to time the supply of food of the right quality and appearance, as well as the right volume at the right price. Supermarkets are concerned with being seen as responding as sensitively as possible to consumers' demands.

It is possible to illustrate this idea by briefly presenting a recent public controversy affecting bananas in the UK (April-May 1992). Supermarkets, on behalf of the consumers, launched a campaign highlighting the nutritious and healthy quality of bananas. The first point in this campaign was to emphasize a 'statistical reality', i.e. that England was consuming a third less bananas than Germany. The supermarket discourse was constructed around two notions of value. The first illuminated the intrinsic value of the banana on nutritional and health grounds. The second argued that the banana was overpriced in the market. The implication was their overvalued price was stopping consumers from eating more of them, and therefore they were being denied the chance to incorporate more 'natural goodness' into their everyday diet.

The overvalued price of the banana in the British market was explained by the BBC International Service as a historical consequence of the days of colonialism. More specifically, by the end of the 1850 and beginning of the 1860s the Caribbean countries found that their main commodity crop, sugar cane, was becoming a redundant commodity in the international market. The British established a new colonial cash-crop, the banana. This venture has been a success story because of the protectionist measures that have insulated the Caribbean producers from competing with the larger Latin-American producers.

The supermarket discourse argues for an end to protective policies and for bringing free competition into the banana trade. This conflict is somewhat in line with the EC's attempts to stimulate banana consumption. The rationale here is, that with competition, the price of the banana will drop and the market will expand. On the other hand, the Caribbean countries feel vulnerable, knowing that they cannot compete on equal terms with their Latin American banana counterparts. The Caribbean countries argue that it is a moral duty for the UK government to maintain protectionist policies in favor of Caribbean banana producers. In this discourse, the Caribbean producers have strongly emphasized the need to maintain the aims of the Commonwealth. This political nostalgia of past colonial relations have been used so far effectively to counter-attack the present moves for an extreme liberalization of trade relations.

The nationally powerful supermarket lobby argues that political independence occurred a long time ago; therefore Caribbean countries have no right to expect preferential treatment in the UK internal market. While they recognize that bananas are important commodities in the economy of the Caribbean countries, they argue that it is not the responsibility of the UK consumer to subsidize Caribbean development. According to them, support for

overseas development is the responsibility of the British Ministry of Overseas Development and not of the consumers.

The banana issue represents an example of how important supermarkets have become in representing both their own and consumer values and interests. So far, supermarkets, by focusing on protecting their consumers' interests have managed to identify and politically use this contradictory frame of values to criticize state regulation policies. This situation, as an icon of the global fruit trade, presents us with a clear demonstration of how commodity and non-commodity relations are not simple properties of objects, but are attributes that are relative to the social life of a food commodity in a global situation of exchange. However, whether the supermarkets or the state manages to regulate policy over bananas, accumulation still occurs. For the producers, the cultural context of this conflict of interests and values will have different consequences. For instance, if supermarkets regulate bananas, they will introduce a free banana trade policy that will create a new source for competition and conflict not only between producers in the Caribbean and Latin America, but also between producers of agricultural commodities that traditionally served different markets from within the EC, Latin America and the Caribbean.

In the above chronicle of the banana case, it is clear, that the supermarket, as a consumption space, has used a combination of cultures and interests of consumption with the opportunity to elaborate a stress discourse. Supermarkets are asking for more complex political relations with the state and its existing political food regulations. In the controversy about the banana, particular actors attempted to impose their own values on the food commodity. However, their actions triggered a sequence of further actions from the people affected. The effect of this was a commodity (bananas) charged with different values. This value contestation forced to the forefront the identity and actors' interests and then obliges them to renegotiate their relationships around the commoditization of the product. In seeking to assist the explanation of value contestation in different spaces, we need to pay attention to local processes of internalization of the global demand for fresh vegetables and fruit, but before we turn to that, it is important to describe the re-organization of 'food tastes' at the level of actors in industrialized societies. The aim here is to provide an insight into the social agencies that are socially constructing this new contemporary agricultural demand in an era of global and discontinuous social change.

Actors' Representation of Food and their New Tastes

An expression of the interweaving between economy, culture and politics is the rising of public consciousness and better understanding of the importance to live healthily. This knowledge has been coupled with a recognition on the one hand, of the cultural and environmental consequences of our modern relationships with nature (Goodman and Redclift, 1991), and on the other, at an individual level, that the meaning of trust and risk are embedded in the consequences of modern life (Giddens, 1990) and in the regulatory process of food in a period of public critical assessment of modern farming practices (Flynn and Marsden, 1992). At one level the green representation of health and food has been very effective, because it has linked, culturally and politically, the importance of the green issue to the everyday life of people. Nevertheless, this issue of the individual and health responsibility is a complex one.

As Fiddes (1990) argues, health as a rational, scientific pursuit, which has always been controlled by experts has been too distant from the everyday practices of individuals. A

useful contribution in this connection is the work of Turner (1984) on the impact of science on the regulation of human bodies in modern societies. In this line of analysis Turner argues that medicine is the key institution in the secular regulation of bodies. In his view

> [t]he necessity to regulate labor provided a materialistic and historical perspective on the development of disciplines. The dietary regime appeared to be a perfect way into this analysis, partly because the term 'regime' permits one to connect a medical-life-plan with the large notion of a government. (1992:6).

This relationship is apparently significant when people are forced, as a disciplined population, to adopt the discourse of the health experts. "Medicalization, secularization and rationalization appeared to be the great forces which have operated on the body, or more precisely on the body-in-the everyday-world" (Turner, 1992:4-5). Therefore, the contemporary and complex associations between cultural, political and ethical considerations about health, nature and agriculture represent the social need to consume green commodities, as a way of regenerating ourselves, and the will of the individual self to take control of one's own body. In this sense, consumption of fresh vegetables and fruit expresses a rejection of modernization beliefs and a dietary regime that is not based on high calories and cholesterol. Fears of modern agricultural technology and chemical residues on food must be interpreted in the wider social context, where new social and moral values are challenging the unrestricted exploitation of the natural environment.

In this context, fresh vegetable and fruit consumption is a practice and expression representing how consumers are internalizing the emerging discrepancies between state policies, the economic sphere and the transformations of the agricultural and food sectors. In short the globalization of agriculture and the recomposition of production processes across national boundaries, has facilitated consumers, who, while once regarded as merely part of the reproduction of labor, through their food consumption activities share direct responsibility in issues of health without the mediation of medical experts. Furthermore, the environment, as a public issue in industrialized countries, has been socially constructed around a range of everyday life practices. Food consumption is one of these.

Information about the production process, origin and content of green commodities in the supermarkets of Europe and America has created a new cultural landscape, where grapes, apples, pears, peaches, plums and wine from Chile; tomatoes, melons and watermelons from Mexico; and snow peas, broccoli and parsley from Guatemala surround consumers from high- and medium-income countries with 'new meanings', associating exotic places, different type of values, and what people in industrialized societies believe is 'natural and green' together. The concatenation of these beliefs and practices, some of them contradictory to the existing institutions, have constructed a new spatial materiality for consumers. However, green consumerism which dictates the form in which the various supermarkets must modify their trade contexts to provide information to the consumers, is less specific about the local effects of this global food re-organization in Third World localities. As industrialized societies have changed socially and economically, consumers' perceptions of agriculture, nature, health and tastes have changed. These in turn generate a dynamic of scale which motivates different local rural responses in an era of global re-organization of the food context.

Let me turn now to assess the significance of export agriculture, as a global tendency that

has intensified the production of non-traditional food commodities, a processes that has favored the assembling of differential processes at the local level. The interrelation of these local processes has started to modify dramatically the contextual circumstances of rural production in some Latin American countries. To illustrate this point I introduce in the next section the case of Chile. This classical example of agro-export production in Latin America allows us to portray the significance of these local processes.

The Chilean Case

In the specific case of Chile, major policy initiatives to expand exports and reduce the vulnerability of the country from traditional exports initiated a dramatic transformation of agriculture. The international demand for fresh fruits and vegetables generated a local dynamic, whereby the production of commodities such as grapes, apples, pears, peaches, and wine became valuable and important food commodities. They represented the flagship of Latin America export diversification. In the case of Chile, the value added by agriculture to the national account (the average annual growth rate) was 3.9% during 1981-1989, while within the decade 1961-1970 it was just 1.9% and during the time period of 1971-1980 only 2.2%. The Chilean case has been presented in development economics as one of the most successful experiences in this type of export agriculture. During the period of 1985-1986 the agro-export activities in Chile were reported to contribute 27% to the total foreign currency earnings of the country.

By 1987 the main international market for Chile was the USA, consuming 53.9% of its production of fresh vegetables and fruits, followed by Holland 17.7%; (South Arabia) 6.2%; UK 4%; Italy 3%; Germany 3%; the Arab Emirates 2%; Belgium 2%; Sweden 2% and other countries 8%. Chile has become the most important agro-export producer of Mediterranean fruits in the Southern Hemisphere. According to FAO figures, in 1991 alone Chile produced 50% of grapes, apples, pears and peaches, surpassing countries such as Argentina, New Zealand and Australia (Gomez y Echenique, 1988).

There are at the present time some 250,000 permanent, and 300,000 temporary jobs provided by export agriculture in the Chilean agricultural sector. The expansion of jobs in agro-export activities is dependent on the expansion of export volumes; thus, it has already led to some important social and cultural changes at the local level. One of the most significant is the incorporation of women into agricultural labor markets. Of the labor force working in vineyards, orchards and packing plants, 60% is female (Cruz, 1986). There is no doubt that the dynamism of Chilean agro-export agriculture is a direct legacy of the authoritarian Chilean state privatization programs (Rivera, 1992; Yotopoulos, 1989; Gomez y Echenique, 1988; Silva, 1987) and the implementation of neo-liberal policies (Van de Valle, 1989). The effect of these policies pushed the commoditization of Chilean agriculture to an extreme. The introduction of different sets of values with serious social costs produced the reconstructed agricultural sector, and finally established a new discipline of production over the existing land ownership system. By 1979 about one-half of the beneficiaries of the land reform had lost their access to land (Foxley, 1982; French-David, 1983).

Since 1983 emphasis was given to export incentives. Among the new economic measures was a strengthening and reorganization of the state's export development agency PROCHILE. According to Moran (1989) during 1984-1986 agricultural exports increased by 19% per year, compared to the 8.4% increase

during 1980-1984.

While there is plenty of evidence and something of a consensus that new frameworks of value have been internalized in the Chilean countryside by the actors' involved in agro-export activities, there is very little information about the local social processes refashioning rural Chile itself. Peasants expelled from their old places of residence (see Chonchol 1990) have been forced to reconstitute their local knowledge in order to relocate themselves and their life-worlds. This process of the newly commoditized reality is an area of importance that requires study. As Cruz and Rivera have shown (1984), peasant life is evolving as perceptions and nostalgia of the old land reform past meet the experiences and tensions of modern times. In the producers' representations different value notions have mingled with the past and the more recent Chilean political experiences. The ongoing commoditization process of social relations and the dance of different frameworks of valuation and contradictions are confronted with the new actors' abilities to construct the Chilean countryside. These social constructions constitute a fragile and heterogeneous confluence across different interests and rationalities. It is in this process of mediating and internalizing the commoditization influences that a sociologist can find the meaning to the changes of the Chilean countryside and to the transformation of actors' struggles. It is at this point where the specificity of Chilean agrarian transformation can be revealed in an era of globalization.

An Overview of Local Processes in Chile

1. *The Role of State Policies:* Transformations in Chilean agriculture have been a direct result of state economic readjustment policies that were directed toward strengthening the production of tradable commodities. These policy instruments consisted mainly of a reversal of the agrarian reform land distribution program, and in facilitating the institutional context for accelerated capitalist modernization of agriculture. These two processes were possible because of the authority of the military Junta in strictly controlling the implementation of an economic neo-liberal framework of policies. The final reconstitution of the local countryside was achieved through the strict control of credit, and with the arrival in 1986 of financial domestic and international groups that started to organize the production of fruits, buying agricultural land and linking localities to the growing international market of vegetables and fruits.

2. *Changes in the Agricultural Labor Market:* The establishment of the agro-export activities has produced important changes in the agricultural labor market. Rodriguez found in 1985-86 in the Aconcagua Valley, that during the two months of maximum employment, the ratio of temporary to permanent work was 5:1. In the months of least activity, the ratio of temporary to permanent work was equal or lower. In the period of high labor demand, a large number of urban students and women joined in harvesting activities and fruit packing. One of the most significant phenomena of agro-export activities was the incorporation of women in large numbers to the labor market. This process has important social consequences for the redefinition of marital and family responsibilities in the changing households.

3. *The Urbanization and Style of Existence in the Countryside:* Peasants expelled from their homes have settled in small *poblaciones* outside the agro-export unit of production. These settlements are established on marginal public lands, sometimes on abandoned railway stations, around their former villages or on the edges of towns. In 1980, the population of these small rural shanty towns was estimated to be between 200 and 250 thousand families.

This constitutes approximately a population of one million people that has initiated in the rural areas the process that is to found in Third World urban-development.

Lacking adequate basic services, these settlements, with more than 55% of their labor population working as temporary workers in the fruit export sector, and another 45% working in the informal sector or depending on minimum government employment programs, today constitute one of the new social environmental features of the agricultural transformations in Chile (Cruz and Rivera, 1984; Ortega, 1987; Campana, 1988; Gomez y Echenique, 1988; Martinez and Suvayke, 1990; Chonchol, 1990; Rodriguez, 1987). The population of these new settlements have urban patterns of consumption, they consume commercially prepared food and use modern systems of transport to commute to their agricultural jobs.

4. *Food Choice:* The stimulus for agricultural development has favored a shift of local consumption habits, both in relation to the 'traditional' forms of food provision (households) and to the establishment of a dietary regime that has permitted a new style of life connected to the larger notion of the changes in the labor market. While in Chile there has been a long tradition of consuming pasta and canned food, the association between supermarkets and the indigenous production of food for mass consumption is a relatively new development. The main potential market is represented by consumers who can no longer produce or prepare their food in their households. Food consumption has changed as a proportion of their total expenditure, and as the standard of living has deteriorated, food consumption has also changed in content. These trends have been assisted by the incorporation of women into the agro-export sector, and the dramatic changes that have occurred in food retailing.

5. *Transformations in the Traditional Chilean Rural Landscape:* Agro-export production has transformed the landscape of rural Chile. Local entrepreneurs have replaced traditional fruit varieties with faster growing trees, especially in the irrigated and more productive agricultural areas. The introduction of expert agricultural technical systems has overcome the local environmental constraints by reducing the logistic difficulties that the traditional tree varieties presented, whilst increasing tree homogenization of fruit production. The design of efficient systems of fruit production has allowed the domestication of trees to fulfill the tastes and standards required by the international market.

Local people have responded to these processes, actively trying to solve their own problems through interpersonal networks, local social relationships, and acceptance of the intervention of non-governmental organizations, either as individuals or in groups. Local actors have not passively adapted to these changes. A failure to theorize the specificity of these processes (internalization) can make us fall back into structuralist or universalist interpretations of the effects of rural changes in an era of agricultural globalization.

In the next section I will take the issue of how agriculture as a global tendency is internalized and interpreted by local actors. This specific difference of contemporary agriculture is a complex process, which I intend to introduce by presenting the main range of entrepreneurial variations that agro-export agriculture generates at the local level.

Local Variation of a Global Demand: A Case from Western Mexico

Fruit and Winter Vegetables

Highly appreciated by American consumers, Mexican melons, watermelons and tomatoes have constituted an economic modality

that has traditionally favored the north-west regions of Mexico. Nevertheless, the production of these valuable crops in the last twenty-five years has been established in other regions, such as western Mexico. Export agriculture has expanded and become an important element in the Mexican strategy of economic recovery.[1] Moreover, the work of Rama (1985) suggests that export agriculture has evolved from comparatively crude efforts to grab private profit into more sophisticated systems of agricultural production managed by 'techno-science' and up-to-date forms of administration. Seen in this light, export agriculture becomes an important mode of transformation[2] requiring careful local case studies in order to establish its significance and its consequences for the environment and the local economic and social systems.

The areas of research on which this section of the paper is based are two contiguous valleys in the southern part of the State of Jalisco, some 200 kilometers south of Guadalajara City. This location has experienced in the last ten years a process of spatial integration into the export-oriented network of fruits and tomatoes for the US market. Over a short period of time, in the valleys irrigated by the rivers Armeria, Ayuquila and Tuxcacuesco, a diversity of small and medium-scale producers and local private entrepreneurs backed by foreign contacts and capital have ventured to satisfy the demands of the US consumer market.

In 1982, this region witnessed the inauguration of a five year cycle of melon and watermelon production that exhausted the fertility of the soil and brought foreign companies into direct contact with local producers. A dramatic transformation of the local view of nature occurred, bringing about a shift from a behavior that valued rain, the soil and clean water to a fetishism of these 'green' crop commodities. This process stimulated the 'manufacture' of local traditions such as the regional celebrations of the melon (*la fiesta del melon*) and the yearly masses to worship watermelons. These festivities incorporated local people, their political institutions and the Catholic Church into relations with American export companies, regional entrepreneurs and the Mexican beer and soft drink companies based in Guadalajara. The latter usually provided the financial sponsorship for these celebrations. Although this bonanza lasted for just five years, it did manage to establish among local people a new 'situational logic' and the emergence of new 'bodies of knowledge'.[3]

Towards the end of the 'boom' period, the production of fruits and vegetables in the area of Autlan, El Grullo and El Limón was affected by crop diseases and an increase in the costs of production, but fortunately, so far, the region has been able to avoid total collapse. Serious organizational problems affecting producers arose with the commercialization of the products, with corruption and with the growth of local conflicts. The diversity and complexity of different types of property relations (i.e. ejido, private property and agro-industrial enterprises), the different labor processes in the area (i.e. State--organized, Mexican-private and ejido enterprises, and US/transnational enterprises), and the maintenance of a highly diversified agricultural pattern of crops, mitigated the economic and social effects brought about by the termination of the fruit and vegetable bonanza. This experience obliged producers and the State to reorganize their strategies in relation to export agriculture. These elements are the effective starting point of my local analysis.

The Local Context of Export Agriculture

The agro-export system of production in Autlan, El Grullo and El Limón is an external

expansion into the local horticultural and fruit cultivation system. People in the area have known for a long time how to take advantage of the hot climate and irrigated agriculture. In some instances this knowledge can be traced back to the hacienda period (Heijdra, 1988). However, local producers tend to identify the 1950's as the relevant time to which they trace their recollection of the origins of the horticultural production system.

Don Miguel, ejido president from the agrarian community of Ayutita in the municipality of Autlan, remembers:

> Our ejido used to supply tomatoes, cabbages, lettuces, radishes, chilies and herbs to the old market in Autlan. Autlan was the vegetable center for the coastal area until 1955, but this eventually came to an end, because we lost the old market [a fire] and in 1968 the first foreign company arrived here. (1987)

Don Miguel's interpretation is that in the 1947 fire, the small local producers lost not only their old market building, but also their control over the local and regional vegetable market. Don Miguel argues that after 1955, local traders started to buy vegetables in Guadalajara, advantageously using the truck route to the coast of Jalisco that went through Autlan.

The second important development in Don Miguel's view was the character of the economic operations of the foreign companies. According to him, companies used to send first class tomatoes to the US market, but second and third class tomatoes were dumped into the local and regional markets. This form of operation induced local traders to reject local production. Eventually, small producers were forced to rent their lands to the companies. The best land ended up under the control of the companies and the ex-independent small producers were either forced to rent less fertile land in the valley, or to migrate in search of work.

Don Miguel strongly disapproves of the technology used today for the production of vegetables, especially the application of chemicals in the tomato plantations. Don Miguel argues that the serious problems of plant contamination in the valley have their causes in these modern horticultural techniques. Despite these observations, Don Miguel concludes that the companies have done a lot of good for Autlan, mainly because they have been able to provide new jobs for the local people.

The valley of Autlan offered the companies local experience in horticulture and a centralized irrigation system constructed during the 1955-60 period. The irrigation system was restored between 1974 and 1978; today it covers approximately 9,000 hectares. When the companies moved into Autlan they did not expect to encounter any political resistance. However, opposition did come from traditional local politicians. The local political response was to encourage the cultivation of sugar cane, to the extent that 5,000 out of 9,000 irrigated hectares were eventually devoted to its production. As a consequence, the incoming agro-export companies were forced to organize their ventures on non-irrigated land, which meant that they had to invest in the drilling of artesian wells. Paradoxically, it was this need to drill wells that persuaded ejidatarios to rent their plots to the companies (Verhulst, 1988).

Generally speaking, while the local horticultural tradition has continued in the valley, it is the agro-export companies who control today's vegetable trade. However, this control is not absolute and small producers and government personnel are aware of the risks and possible benefits of the companies' domination and, consequently, seem to be interested in the generation of strategies to regain control over production and commerce. According to official figures from The

Mexican Ministry of Agriculture (SARH), tomato production and the agro-export system contributed nearly 30% of the total agricultural value generated in the Autlan District in 1987, while the sugar mill activity generated over 70%.[4]

The vegetable production is in the hands of five main firms; of these one has 100% US capital investment, one has 50% government credit (FIRA) and 50% US capital, two companies have 60% government credit (FIRA) and 40% local private capital, and one has 100% capitalization from private Mexican sources. Out of the total production of tomatoes, 33% goes to the US market (normally beef-steak and cherry tomato varieties are exported); 20.1% is directed to the Guadalajara market; 23.5% ends up in the Mexico City market; 16.7% is sent to Monterrey; and 6.7% remains in Autlan for local consumption.[5]

Of the companies mentioned, three buy production from local small producers and are important local brokers trading with US firms. The company that has 100% US capital investment has acted as the agent of the Griffin and Brand Company. In this capacity, it first specialized in the melon and watermelon trade and later in the export of vegetables. This firm was one of two that developed refrigeration equipment to pre-cool fruits. The other is the company constituted by Mexican capital, Vergeles, which is enjoying a rapid process of expansion. The third company, depending partially upon US investment, has managed to generate a direct link with middle and small US brokers of vegetable products, a commercial situation that has allowed this Mexican agro-industrialist to take advantage of US crop demand.

The preceding discussion constitutes a brief introduction to the context of the agro-export system in the Autlan area. However, the social life of the agro-export system is a complex process, which I intend to elucidate initially by presenting some of the types of entrepreneurial organization that are found at the local level. This allows us to focus upon the interplay of different life-worlds and the bodies of knowledge of the actors directly participating in the agro-export system. I analyze three of the five main agro-exports companies in the locality.

The Entrepreneurs of Autlan, El Grullo and El Limón

The owners of the agro-export companies constitute the local archetypes for the image of an entrepreneur. As such, a real coming to terms with these actors requires a dialogue with some of them. I intend to achieve this by drawing upon material collected by research colleagues and myself during 1987.

Case 1: Diego

Gonzalez (1989), in a study of the life history of an entrepreneur from Autlan, provides us with a window for understanding some of the elements defining the identity of one of these actors. According to Gonzalez, Diego, the entrepreneur, spent his childhood and youth in an coastal area of Western Mexico. From this experience he had a memory of how strong men had cut down trees, burnt the forest and opened the land for cultivation of cereals and later established cattle ranching. In the entrepreneur's model, nature appears on the boundaries of Mexico's 'human' society. Ejidatarios (peasants) are perceived as political creations of the state against whom it was futile to fight because one can never beat the Mexican political system. Consequently, Diego's own meaning of agriculture is constructed by a practice that subjugates nature and makes the soil a producer of commercial crops.

Diego's entrepreneurial career started after he finished secondary school. He cultivated

watermelons for the American market on his father's farm in Michoacán. From this experience he learned about the importance of brokers in the marketing of fruit in the US. His good economic results motivated him to intensify his involvement in this line of production. Following on from this experience as a producer of fruit, Diego became an important organizer of the first local Association of Horticultural Producers. His aim was to negotiate directly with US companies with a view to establishing a system of credits and a minimum guaranteed price for the fruit at the beginning of every production cycle.

Eventually, Diego was elected first president of the Regional Union of Horticultural Producers and through this organization he became a member of the National Union. Within four years, a network of producers from different localities started to have enough power to deal with the American companies and to be a political factor to be reckoned with in the region.

One of Diego's most ambitious projects was to establish a warehouse in the US as a distribution point for directly supplying fruit to supermarkets. This project failed. Eventually, in 1980, the agrarian reform was applied to his property and Diego was forced to start a new venture in Autlan. Diego entered into a partnership with his wife's brother, who at the time was supervising tomato cultivation for a company backed by Mexican and American capital. They worked together for three years, Diego then becoming an independent producer. During these years, Diego learned about tomato cultivation and invested in machinery. Using his previous experience with the international market, he visited the US and managed to secure annual contracts. These contracts finally consolidated his situation as an entrepreneur. Diego started his operation with four hectares of tomatoes; after seven years he was cultivating 250 hectares of tomatoes in Autlan and opening up new areas in other states. Today, his is the fourth most important agro-export company in Autlan.

Gonzalez's study presents Diego as a clear case of a local innovator, showing how the entrepreneur developed his business, assembling along the way various political, institutional and technical advantages that he had extracted from different environments in order to achieve what he wanted. Diego introduced a new system of sprinkler irrigation in the valley after the levels of underground water had become critically low. He also brought from the US some new experimental seeds to increase tomato productivity. Diego, as a very articulate economic actor, was also able to generate a social discourse to enroll ejidatarios into the expansion of his enterprise. He used the Agrarian Law with imagination and implemented a system of benefits through a 'legal' paper organization named the Local Solidarity Association (Associacion de Solidaridad); this was a clever device to rent land from the ejidatarios under very convenient terms.

Case 2: The American

A different contribution, outlining the organizational capabilities of the entrepreneurial activity in the valley, arises from the work of Torres (1989). Torres points out that it is in the everyday interaction practices of the actors working for these companies that we may find reasons to explain the relative success of some of these agro-export enterprises. Torres argues that there is a process of company appropriation of the local styles of knowledge. The second point in Torres' analysis is the presence of flexibility in the company's process of decision-making. These two themes are present in his investigation of the room for maneuver which exists within these enterprises. Torres explores these topics with the view of studying

the impact of these processes upon the workers.

The room for maneuver is concretely illustrated by a case study. The case concerns a change in management style in the agro-export company. The old style of management was introduced by an American, an ex-Second World War fighter pilot and a former tomato producer in Cuba prior to 1959.

To an important extent the American's entrepreneurial success seems to have been due to his ability to organize the company's working system in such a way that local conditions and the practical knowledge of the labor force were taken seriously into account, while at the same time effectively targeting tomato production for a combination of US and Mexican markets. However, the very success of the company eventually generated an internal struggle between conflicting organizational tendencies. This further stage is illustrated by the new style of management which arrived following the departure (retirement) of the American manager.

The new supervisor in the company was a young Mexican, recently graduated from the university. He was perceived by the company workers as having no practical experience. The workers resented the way he chose to impose his authority upon them, especially those workers trained under the American's original style of management. One specific and dramatic conflict arose between the new administrator and a senior worker who had 11 years of experience handling the greenhouse operations. As a result of this conflict, the worker eventually was demoted from the greenhouse operations to the company laboratory; the supervisor, to make the meaning of this move absolutely clear to the rest of the labor force, ordered a reduction in the worker's salary.

The new administrator placed a young woman, a recent graduate in agronomy from the university, in charge of the greenhouse operations. In this position she was confronted by workers' resistance to her techniques. The workers argued that the tomato plants were healthier, more resistant to disease, and offered a higher yield under the old system. The young agronomist perceived this opposition as a natural reaction against her gender. The fact that the company failed to obtain good results in production was explained in her view as the result of three extraordinarily bad agricultural years. She also argued that all the companies in the valley had suffered the devastating effects of a prevalent virus. In this way, she explained the company's problems by reference to external factors and thereby dismissed the importance of the changes in working practices and the position of the labor force.

The demoted worker and a section of the labor force had a different opinion. According to them, poor production was a consequence of applying ill-chosen techniques and erroneous decisions in the running of the greenhouse operations. According to their beliefs, it was essential that the tomato plants be 'domesticated' and nurtured for production within the greenhouses. For them, an overly impersonal and scientific treatment of the plants would produce sub-optimal results. Therefore, for the workers, the company's three years of disappointing output were an empirical demonstration that university training was not very important; rather, experience was the only way to acquire real knowledge.

Eventually, the workers felt vindicated, and had their views reinforced, by the removal of the young Mexican supervisor and the arrival of a new administrator. The new administrator re-called the old worker and reinstated him in charge of the greenhouse. The worker accepted, on condition that his salary would be the same as that of the university graduate arguing that his skills had

the same value as hers.

According to Torres, these situations reveal the capability of the workers to generate intermediate social spaces; these spaces are semi-autonomous fields of action where the workers can defend their knowledge, values, position and wages while the company gains the necessary flexibility to effectively integrate non-commodified labor relations into the strategy to overcome competition and internal conflicts.

The rest of this section draws on my own material and analyzes the way in which one of these companies has managed to expand and consolidate its operations in the nearby area of Tuxcacuesco. I take the point of view that some company entrepreneurs do not need to have a strong agricultural background nor, for that matter, is there a uniform requirement for organizational flexibility. In some cases, the organization of an enterprise depends on the manipulation of interpersonal networks and the capacity to exercise non-economic (e.g. political) pressures on different groups of people. In these situations, powerful forces external to the locality are organized by the entrepreneur to establish a network of relationships involving different local actors whose needs have been shaped by the entrepreneur and whose individual projects have become linked to the maintenance of the company's agricultural operations. This form of social molding accommodates the pursuit of personal interests within a scheme of local productive activity ultimately controlled by, and to the benefit of, the company.

Case 3: El Diablo

I first met the entrepreneur Ricardo Villadeoro, locally nicknamed *el diablo*, the devil, at a reception organized by the local *cacique*, the political boss of Tuxcacuesco, to celebrate the regional meeting of the Jalisco Small Producers Association. Ricardo Villadeoro said:

> As you probably know, I am not from Tuxcacuesco. I am from Autlan and I have been here for ten years and I love it so much that I decided to live here. In Tuxcacuesco I am the person in charge of the Vergeles management. In my company I have everything, so we don't need government assistance; if I need technical assistance I can bring the best expert here in less than twenty-four hours. Let me tell you a fact. Last year I made a profit of around $1,000,000. The profit was not made from the production of tomatoes but from the production of zucchini. We obtained an average of 17 tons per hectare. We sold the production in the export market (US) and in the Guadalajara market.
>
> It's a risky venture to produce tomatoes; for instance, last year [1986], I didn't sell a single box of tomatoes in the US, because the government implemented an import ban on Mexican produce. The real problem for us is the international and national market, not the virus. [Laughing, he added, just before leaving] I know how to control the virus, but the market is well beyond my control.

This conversation advanced my knowledge of Tuxcacuesco's local entrepreneur, but it was not until I started to work through the other social actors and their relations with the company, that his detailed personality finally started to emerge.

The next day, on a field trip to see an ejido, the local SARH official told me that all of the area that I had seen was under the control of Ricardo and Vergeles. They had bought more than 100 hectares of land under different names. "He controls the largest irrigated unit in Tuxcacuesco", he added.

> From my point of view this is good. When the land was under the ejidatarios' control, they never had resources to cultivate the land or pay the electricity bills for operating the pumping station. Ricardo, on the other hand, always pays on time, and he has brought about important

changes in Tuxcacuesco. Villadeoro rents a lot of land to small private producers. In fact, he doesn't need us [i.e. government support] because he has excellent economic resources and technical support. Ricardo was the first here to use women as labor and although he pays them a little less than the official salary, one fifth less for their *jornal* [a day's work of 8 hours], this is because in practice you cannot make a woman work more than six hours; nevertheless, this innovation has been a very good thing for the local households.

The official then continued to list for me some of the entrepreneur's innovations. First in the list was the application of powerful insecticides using tractors. Second, an intensive system of production was introduced. During the dry season, Villadeoro cultivated watermelons, melons, tomatoes, chilies and zucchini and, during the rainy season, sorghum. The last of his achievements was to establish a demand for labor which he drew into the Tuxcacuesco area from nearby poor agrarian communities. At this point I took my inquiries about the entrepreneur to one of the community's suppliers of labor. In El Guamuchil[6] Don Salvador, a small producer and one of the two truck owners in the community, said to me:

I organize the people from El Guamuchil for *el diablo*. When he needs workers, *el diablo* waits for me in the town and asks me to bring people the next day. So I tell the people in the community through a notice I put on the ejido's house. I say that anyone interested in working in Tuxcacuesco should be ready at five in the morning in front of the ejido house. I take them to the field and in the afternoon, I bring them back to the community. *El diablo* pays me for the truck journeys, but what is more important, he changes my tires absolutely free. We need the work at Vergeles, because several families in the community have no access to land and others do not have the money for agriculture. Some people used to work in mining, but since the accident, in which several young people died, no one wants to work in this any more. Now they prefer to work in the fields.

There are some 10 women and 20 men who regularly work for the Vergeles Company. The majority of them are landless young married couples. One of these laborers said that he does not like to work for *el diablo*: "The work there is hard and sometimes dangerous because of the strong pesticides they use". A producer who sporadically works for Vergeles commented: "I don't like to work for others (*en lo ajeno*), I prefer to find my food fishing in the river, but sometimes you need money, so *el diablo* is the only source of cash". Households are in constant need of cash. One reason is to pay for medical attention for family members; the cost of prescriptions is a constant source of worry. In a critical family situation a member of the household will get into debt and after the crisis has passed, he or she will work for Vergeles until the debt is repaid; only then will the sporadic worker resume his or her independent activities.

Scrutinizing the personal characteristics and identity of Ricardo Villadeoro, I moved my inquiries to the town again. There I interviewed Nati, ejidatario and cantina owner, 43 years old, born in Tuxcacuesco and member of one of the oldest families in the area:

Vergeles came to Tuxca around 1981-82, they introduced better irrigation techniques and they started the use of herbicides and insecticides here. Soon after that, producers started to use plastic hoses to irrigate their plots. Before the arrival of Vergeles we used lime and brimstone dust against plant infections, you see, we were really very ignorant here. One of our beliefs was to make large fires to combat mosquitoes, another was to observe the swallows so if they made their nests in the highest places, that was a sign that the year was going to be bad. We used to observe the purple ant; if we saw them wandering around with their offspring that was because the rainy season was going to be good. All that now is in the past; today the people don't talk any more about these beliefs. If you

go to the square, people there will be talking about the latest insecticide and the best way to tackle the virus. We have lost the old ways. I still remember how the old ones told me their experiences and the way to get a good harvest. They used to tell you about life. Today people have lost the meaning of a good conversation.

The foregoing account shows that people like Nati are ambivalent. On the one hand, they see improvements through the introduction of new forms of technology and control over nature; on the other hand, they are a sad witness to the loss of local knowledge. Ambivalence about the effects of Ricardo in the area can also be seen in Nati's next description.

Vergeles has created land conflicts. Ricardo, as representative of the local Society for Rural Production [a paper organization] has clashed with the sons of the ejidatarios. These are fighting to have access to land and they are campaigning to obtain Vergeles property. They have spent 17 years fighting. Last year they occupied Ricardo's land. The municipal police protected the producers who started to open the land up for cultivation; on the third day, the Preventive State Police [*los azules*] arrived here in seven pick-ups. These took control of the town, expelled the landless from Ricardo's land by force, and fought with the municipal police. They forced the municipal president to sack the local police commander and after that they brutally beat him. *Los azules* ordered him never to put foot in Tuxcacuesco again or he would face death.

Ricardo is seen by Nati as personifying local conflicts. Following the land problem, Ricardo was seen as an influential actor able to involve the state police in restoring the 'legality' of his agro-export company. This show of strength manifested itself through the political mobilization of external forces and influential people. This action revealed a new style of politics in Tuxcacuesco. The traditional cacique's style had in contrast been to isolate the area politically rather than to bring outside influences to his support.

Ricardo's extra-local political associations could be said to be derived from his entrepreneurial actions. Through one of the directors of Vergeles, who had a quasi family relation with the district representative of the Ministry of Agriculture based in El Grullo, Ricardo had access to the Secretary to the Governor of Jalisco. This SARH representative was the brother-in-law of the Secretary. The Secretary to the Governor in Jalisco, has direct authority to deal with internal problems of order, and in this capacity, he controls the Jalisco state police. The unusually quick and brutal form of intervention in an agrarian problem exemplified in the above case can only be explained as the action of a political authority who not only wants political tranquillity in the region but also wants to be seen as making this tranquillity possible. This role gained special significance from the fact that the Secretary originally came from Autlan and was a member of the caciqne's political lineage. Nati argues that *el diablo* is part of a new reality constituted by the increasing importance of cash in the local economy. It is this process of commoditization of social relations that is revealed in the aftermath of the land conflict.

In another conversation, Nati kept coming back to the role of the 'invisible hand' in the process. He remembered how *el diablo* once demonstrated the company's importance to the local people. He sacked the brothers and sisters of those who had participated in the land conflict and he proceeded to refuse to buy the vegetables of those producers who had relatives involved in the conflict. According to Nati, the economic effects of this action were felt in the commercial sector of the town: With no income, people stopped buying things, leaving local shopkeepers with excess stock. Reflecting on this situation, he said: 'Could you imagine how many years we would go

back if Ricardo and Vergeles were to leave Tuxcacuesco?'.

In view of the preceding case-study, it is evident that the strategy leading to the successful establishment of the Vergeles Company included three crucial elements: the commoditization of the local economy, a new political style of control, and the introduction of technological innovations. These elements were brought together by the 'agency' of the entrepreneur who incorporated the company production system into the region. This process entailed the organization of local labor force circuits and the ability to inject cash resources into the local economy. These factors finally established Ricardo's company in the region and consolidated him politically with the traditional cacique group. Despite evidence of people's dislike and opposition to his economic and political activities, the different views share, more or less, a perception that is better for them to have *el diablo* and Vergeles in Tuxcacuesco than not to have them.

In conclusion, this section has examined three types of entrepreneurial agencies present in the area. In the first case, Diego, the emphasis was placed upon the individual socialization and political-institutional experiences of the entrepreneur; these elements pointed to the importance of extra-local influences and especially to the development of economic contacts with the US. In the second case, the focus was an American entrepreneur, who, though his style of administration was based on his personal experience, created 'social space' within his enterprise. In the third case, Ricardo Villdeoro, *el diablo*, using external political associations, managed to instill in others the need to participate in his enterprise. By successfully redefining the meaning of local needs, he was able to carve out a position of local indispensability.

While to some extent the aspects highlighted in each case may be present in all of them, I submit that the three stories reflect, to an important degree, the range of variation in agro-export entrepreneurial forms at the local level. This range represents a trend towards a new socio-economic organization of the locality. In essence, the demand of fruits and fresh vegetables in an era of globalization has been internalized by actors. This process of translation encourages a recomposition of the organization of the local production processes. Clearly, the agro-export expansion in Mexico involved not only transnationals but also 'innovative' local entrepreneurs. It gave rise to an alliance consisting of multinational, domestic entrepreneurs, the state, and local horticultural growers. In spite of their different interests these actors all appeared to have a common stake in the continuation of agro-export agriculture. Therefore, we need to ask, if it is possible to spread the benefits of agro-export production to other rural actors without alienating the interests of the most powerful members of the agro-export network. This is one of the central issues for local rural development in an era of agricultural globalization.

Conclusions

This paper has presented and examined some of the central issues of an era of agricultural globalization. Beginning with the issue of new patterns of consumption in industrialized countries, we attempted to suggest that contextual transformations, i.e. from the old market to the supermarket, have contributed significantly to the social construction of a new type of consumer in the industrialized countries, one who is more willing to display in his/her everyday behavior the lifestyles and tastes for healthy food.

Emphasizing the interweaving between

economy, culture and politics, the paper indicated that new agricultural demand for fresh vegetables and fruits in industrialized countries is part of an ideological process associated with consumers becoming aware of the discrepancies between state policy and state regulations, expert knowledge, environmental issues and the contestation of values in the economic sphere. In short, the basis for any study of agricultural transitions is to be found, I argued, in the study of the local effects of the globalization of agriculture and in the understanding of the recomposition of local production processes across national boundaries. This raises important questions about the diversity of local responses in an era of globalization and about the social and political nature of the **new local processes**.

The globalization of fresh fruit and vegetable production has brought together distant spaces of production and consumption, diverse styles of local entrepreneurship, the interaction of diverse environments through the actions of a corporate food industry and the construction of new networks to provide a whole range of different food commodities for the urban and suburban consumer of the West.

In this paper, we examined the local processes that have arisen from the production of non-traditional food commodities. In the Chilean case, local and dramatic modifications in the landscape of the countryside, together with the advent of actors' deployment of new value-attributes to material resources, food choices, family re-organization, the adoption of new lifestyle etc. have constituted a new **social agrarian configuration** in which actors need to redefine their local social identities and culture.

As the Mexican case shows, it is the social organization of the food production in an era of globalization which needs to be studied and explained. Why do the preconditions of agro-export agriculture have to be expressed in a large range of diversity at the local level? Whether or not this agro-export mode of agriculture is sustainable, and to what extent the new local and international entrepreneurial activity networks are flexible and durable enough to avoid the uncertainty and volatile circumstances of the international food markets is an important issue in rural sociology. To what extent Latin American entrepreneurs, national producers and government policies can avoid risks, distribute the benefits and maximize the options open to these food products is difficult to judge at this particular moment.

Nevertheless, from the brief overview in this paper, we can suggest that while the internationalization phase of agriculture has affected peasant farmer strategies through the integration of spaces (Sanderson, 1986), agriculture in an era of globalization has intensified the production of non-traditional food commodities, a process which has favored differential responses and processes at the local level. As I showed earlier with the Chilean case, these local interrelated rural processes have started to modify dramatically the contextual circumstances of rural production in some Latin American countries.

It is necessary to study the social construction of the 'new' Latin America countryside space in an era of globalization, but stressing the importance of examining how actors use global tendencies in practice, and how this affects the process of local rural development. We need to study the distribution of power and legitimation in rural local contexts under these on-going agricultural transformations. Is power to be seen as a fixed property in an era of globalization or as a flexible outcome among several actors? Is power a consequence of the 'new' interfaces between economic, culture and politics? Is the translation of actors from industrialized countries an important factor

influencing the negotiations between the corporativist food sector and the producers of fresh fruit and vegetables in the South? Is this approach relevant to explore in contemporary rural sociology the relation between power and authority within the global network of fresh vegetables and fruits?.

This paper points to the importance of studying how actors from industrialized and from developing societies, through their everyday practices and interactions with their local environment and culture have created temporary and fragile bridges across international value discontinuities that may have initiated a new process of agrarian transitions in Latin-America. Globalization is different from the era of internationalization of agriculture. Today the exchanges of values at a global level are only possible with the organization of diverse local processes of agricultural production change. This is a controversial development path that seems to reject the use of only one form of value.

Notes

1. Agricultural export crops, including coffee, strawberries, tomatoes, horticultural products, cattle and sugar, are reported to have increased from US$ 1.89 billion to US$ 2.16 billion from 1987 to 1988 (*Financial Times Survey*, 12 October 1989).

2. 'Mode of transformation' is a concept used by Elwert and Bierschenck (1988) to deal with the process of change. They suggest that transformation is a dynamic model "insofar as the incorporation of new elements may transform the mode of transformation itself" (1988: 100). They argue that "outside interventions are not predictable in a precise [instrumental] way. The self-organized characteristics of a system are not an interplay of different [group] interests, strategies, sets of norms, social perceptions whereby the social actors create legitimate norms, compromises, cease-fires and modes of conflicts which together form the social structure" (1988:102).

3. 'Situational logic' is a concept used by Prattis (1988) that refers to the ability of people to share a common view about how to take advantage of any opportunity in a particular reality. For an attempt to evaluate the significance of knowledge in development studies see Arce and Long (1987) and Arce (1989).

4. Official meeting to evaluate institutional policies during 1988. This meeting was organized by the CNC in the local 'Club of Leones' of El Grullo (11-7-87). This meeting was chaired by the district head of the Ministry of Agriculture (SARH).

5. The five main export vegetable companies in the area are: Los Leones, Autlán, De la Costa, Bonanza, Vergeles.

6. From the same community, see Arce (1989)

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RESUMEN

Las nuevas preferencias en los países industrializados y la transformación en el área rural latinoamericana: una introducción a los casos particulares de México y Chile.

El reciente resurgimiento de la agricultura como uno de los sectores más dinámicos de la economía latinoamericana ha vuelto a estimular el interés por la investigación en el área rural. Los efectos sociales y políticos de la nueva agricultura de exportación a nivel local son en la actualidad de interés particular. Este trabajo examina la relación entre la demanda social desde el Norte de frutas y vegetales frescos y las diversas reacciones de los actores y las localidades involucradas en la producción de alimentos. A la vez, toma la producción de las nuevas exportaciones agrícolas en México y Chile como ejemplo de las formas en que la circulación de mercancías está reorganizando las prácticas diarias, al mismo tiempo que evalúa algunas de las consecuencias sociales.

Los nuevos giros de la interconexión entre el Sur y el Norte representan buenas oportunidades para hacer un análisis más comprensivo, que incluya la variabilidad espacial, social y cultural de la tendencia a la globalización de la agricultura. En conclusión, este trabajo presenta algunos de los problemas sociales, políticos y culturales que surgen alrededor del proceso de globalización de las frutas y vegetales frescos y la importancia de estudiar en la Sociología Rural las discontinuidades sociales.

***Alberto Arce** es Profesor en el Departamento de Sociología del Desarrollo en la Universidad de Agricultura de Wageningen, Holanda. Algunas de sus publicaciones más recientes son "The Social Construction of International Food: A New Research Agenda," con T. K. Marsden en **The Journal of Economic Geography**.*

Standardization, GATT and the Fresh Food System

Robert Schaeffer

This paper examines Fresh Fruit and Vegetable Industry struggles to define "quality and consistency." It uses a theory of "standardization"--the dual process of adopting product "standards" and developing "standardized" commodities--as a way to conceptualize these struggles. And it analyzes the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) negotiations in this context, arguing that the adoption of GATT proposals to make Codex Alimentarius responsible for setting industry standards, extend patent protection to agricultural technologies, reduce agricultural tariffs and subsidies and eliminate restrictions on agricultural exports will affect industry efforts to raise standards and standardize commodity production.

Robert Schaeffer teaches global sociology and sociology of the environment at San Jose State University in California. He is currently conducting an on-going investigation of the General Agreement on Tariffs and Trade.

Introduction

The fresh produce industry is obsessed with the terms "quality" and "consistency." In trade publications like *eurofruit* and *Produce Business*, growers, transporters, wholesalers and retailers all insist that they are committed to both quality and consistency. California Walnut Commission spokesman Mark Dorman argues that California Walnuts "are *consistently* of much higher *quality* [emphasis added]" (eurofruit, 1990c:93) than Chinese and Indian varieties. And Bill Heintz, president of the Dole Fresh Vegetable Company, insists, "[Dole is] regarded as the highest quality shipper in the industry. We're certainly the most *consistent* shipper of *quality* [emphasis added]" (Drum, 1990:42).

But the obsession with "consistent quality" and with "Total Quality Management"--the organizational strategies and management tactics designed to achieve this--is a bit odd because "quality" and "consistency" refer to two rather different objectives. The "quality" of a food refers to what distinguishes it from other foods, while "consistency" refers to a food's similarity to other foods, its uniformity. So logically, when people use the terms together, they are talking about foods that possess two different attributes: food that is superior to others, but also equal to others.

This terminological confusion is compounded by the fact that there is little agreement among people who profess a commitment to "consistent quality" as to what quality

really means or how it might be measured. As *Produce Business* columnist Max Brunk observes,

> Everyone talks about quality, [but] when asked, few people can come up with a consistent answer. Two traders speaking on the telephone can be talking about quality with little or no understanding because each trader has a different point of reference in mind. This is the cause of much conflict in marketing. Quality, standing alone, without appropriate descriptive adjectives, has little meaning (Brunk, 1989:69).

The pervasive concern with quality and consistency, and the inability to define either, indicates that participants in the emerging fresh food system are wrestling with a serious problem. Their obsession reflects a deeper economic and political struggle over the definition of standards for a newly emerging, global fresh food industry, which is comprised of an affiliated network of commodity chains. This fight is expressed in different forms. On the micro level, the participants debate whether to adopt a uniform pallet size, how kiwi fruit should be graded, whether various packaging is "recyclable" according to new German legislation, and what the term "organic" means (eurofruit, 1990b:4; 1991b:2; 1990a:4). At the macro level, participants debate the impact of the current round of General Agreement on Tariffs and Trade (GATT) negotiations, ask which regulatory institution will be responsible for setting standards affecting their business and wonder whether the standards it adopts will be high or low.

Standardization Theory

For the most part, struggles to define "quality" are really attempts to raise "standards" that can be used as a common point of reference. Once standards are adopted and the quality of products defined, trade can more easily occur between buyers and sellers who do not meet face to face. And struggles to produce goods "consistently" are really efforts to "standardize" commodity production and produce uniform goods. These two simultaneous processes--the effort to raise widely recognized "standards" and develop "standardized" commodities--can be described as the process of "standardization."

This language--of standards, standardized and standardization--is a useful way to conceptualize these processes because it shows how efforts to achieve both quality and consistency are linked. It is an appropriate terminology because "standard" is a complicated word that conveys different meanings, depending on how it is used.

As a noun, "standard" refers to something that "stands above." A standard typically serves as an arbiter of values, either moral or physical, a sort of yardstick against which other values are measured. As Raymond Williams has noted,

> The word [is]...associated with a concept of a graded progress within a hierarchy.... It is often impossible, in these uses, to disagree with the assertion of standards without appearing to disagree with the very idea of quality.[1]

Indeed, the adoption of a standard implicitly creates a hierarchical system of values, with the standard at the apex and other values arranged below.

By contrast, in its verb form, "standardize" has a very different meaning. It is associated with the process of making different things the same, making them uniform. Typically the verb describes processes that "make, cause, adjust or adopt to fit a standard" (American Heritage Dictionary, 1985:1188). Standardizing is often associated with the "leveling" process in industry. The verb "standardize" usually has a derogatory meaning, referring to a "lowering" of values.

Taken together, the term "standardization" can refer to a system in which values are simultaneously raised vertically and extended horizontally. Applied in this fashion, standardization can be used to understand developments that are common to capitalist development. Indeed, Karl Marx argued that standardization was a generic feature of commodity relations. In *Capital* (Marx, 1967:47-70), he argued that commodity relations depended on the development of a system in which values are simultaneously standardized and integrated into a hierarchy of values according to a standard of money. In this system, commodities set in a "hierarchical" relation by the standard of money become "equally" exchangeable, one with another, though at different prices. So from this perspective, standardization permits the development of a system of commodity relations that could be described as an "egalitarian hierarchy."

In more practical terms, this kind of system is functional to the expansion and development of commodity relations and of trade. As William Cronon (1991) shows in *Nature's Metropolis,* the adoption by Chicago grain traders of standard wheat grades and the shift from storing and transporting grain in individual sacks to railroad cars and silos, which created a uniform, standardized commodity, made possible trade between buyers and sellers who did not meet face to face. These developments contributed to the rise of commodity markets and the Chicago Mercantile Exchange. As Cronon says,

> The shift from sack to elevator enabled grain traders to come indoors, to a market called 'Change where sheets of paper would stand as surrogates for grain bought and sold in millions upon millions of bushels. The shift to standard grades meant that those sheets of paper represented not real physical grain but abstract conventions whose homogeneity was the condition that made them interchangeable. Interchangeability in turn made it possible to sell grain not only over great distances of space but over extended periods of time as well, for the futures market depended for its existence on the standardized fictions that enabled traders to buy and sell grain they had never seen because it did not yet exist. Those who dealt in futures extended the abstraction of Chicago's market by dealing not in grain, not even in elevator receipts, but in the prices that future elevator receipts would bring when they finally came into being several weeks or months later (Cronon, 1991:145-146).

The development of sophisticated and extensive commodity relations for grain depended on its standardization, the extension of uniform values and their insertion into a hierarchy of values. This is a common feature of capitalist development. Most newly emerging industries go through a period when there are competing standards and multiple definitions of quality. The manufacturers of High-Definition Television, for example, are currently going through just such a period. Eventually, common standards and mutually agreed upon definitions of quality are adopted. So, for example, after some years of competition between Beta and VHS formats, the video player industry adopted VHS as its standard, which helped "rationalize" the market for producers, distributors and consumers alike.

Industry Standards, Standardized Foods

In the same way, producers in the expanding fresh food industry seek to develop a functional system of global commodity relations. And these relations require common, mutually agreed upon standards. In Max Brunk's terms, producers need to adopt a common point of reference, so they know what "quality" means, so that trade can occur between buyers and sellers who do not meet face to face, product in hand.

Generally, producers agree on the need to adopt standards. As Ed Del Beccaro, vice president of marketing for Castle and Cooke Foods, said, "There is no question that the government must set and enforce uniform standards of identity--grading, sizing, condition--for the protection of all levels of our industry and the consuming public" (Campbell, 1981:1,3).

But there is considerable disagreement as to what particular standards should be adopted. It matters, for example, whether the industry adopts a New Zealand kiwi as the standard against which kiwi from other parts of the world are measured or whether Red Ruby grapefruit from Florida is adopted as the industry standard. The adoption of one over another has considerable consequences for different producers and for the character of the commodity chain as a whole. This is why participants fight so fiercely over standards and attempt to raise their own standards as the standard for all. They are struggling, in a sense, to create a system of commodity production and exchange that is advantageous to themselves.

It is often said by the winners of these contests that the standards adopted had some intrinsic merit and deserved to be chosen because they were "superior" in some fashion to other would-be standards. Today, for example, the adoption of the Greenwich Meridian as the global standard for time and space is treated as a "rational" way to fix longitude, assign time zones and set watches around the world. But there is no intrinsic reason why Greenwich should have been selected as the Prime Meridian and not one of the 30 other places used as a prime meridian prior to its adoption in 1884 (Schaeffer, 1982:69-90). The adoption of the dollar as the standard currency, English as the standard language, VHS as the standard video format, CD as the standard audio format and the metric system as the standard for scientific measurement are all products of intense intramural economic competition and political struggle. The struggle is fierce precisely because it is not about "intrinsic" qualities, but about profit, market share, premium prices, consumer loyalty, and monopoly rents. And because much of the struggle over standards is intramural and conducted off-stage--not in the marketplace but in private or obscure public standard-setting institutions--it is not the object of scholarly research or public scrutiny.

Participants in the emerging fresh food industry attempt to raise and adopt common standards while simultaneously struggling to develop standardized food products that consistently occupy a place in the emerging hierarchy. Although producers talk about producing food that meets the highest quality standard, they understand that once the standard is set, consistent production at lower levels of quality may also be profitable, sometimes more profitable. As Brunk discovered when he examined annual sales of Florida celery, "wholesale prices were indirectly related to grades....The highest grades received the lowest sales dollars, and the lowest grades received the most sales dollars," which was a consequence of the fact that "when growing conditions are most favorable, supplies [of high grades] are most plentiful...[while] produce [of low grades] bring high prices [in the off season]" (Brunk, 1989:69).

So long as standards are known, producers can find a "niche," even if their product is inferior to the standard. So, for example, Bananic International recently introduced a new banana brand: "Tropy." They admit that Tropy doesn't meet high Central American banana standards, so Director Pedro Baltodano says, "Tropy for us means consistent arrivals" (eurofruit, 1991a:26; 1989a:19). The delivery of a uniform product, even of a lower quality, can be a profitable activity (indeed, it can be more profitable than high quality production,

as Brunk indicates). What matters for producers is not the level of quality so much as the consistency or uniformity of the product at a given level.

Producers seek to develop standardized products because they have discovered that it is easier to make uniform products with a given technology and relations of production than variegated ones. This was the insight of Frederick Taylor, Henry Ford and Alfred Sloan (Friedland, 1991b:3). Producers understand that the key to successful sales and profits is the ability to deliver goods that consistently meet consumer expectations. Because uniformity is functional to high volume production and repeat sales, producers generally prefer to produce standardized products rather than produce uneven-quality or tailor-made goods.

The problem, of course, is that the production of fresh food is very difficult to standardize, particularly when it is grown in different parts of the world, where the soils, climate and biology vary enormously. And it is hard to produce standardized goods for markets where consumers have different "tastes" or sets of expectations.[2] Indeed, one of the important features of the fresh food industry is that it uses fairly "flexible" systems of production on the farm--using large-scale or small-scale farmers, in different geographical settings, and employing a wide variety of contractual arrangements and labor processes--to produce commodities consistently. It should be noted however that systems of transport, distribution and exchange are not nearly so flexible, but conform instead to the more uniform system of production characteristic of other branches of industry.

The rewards for consistent production are considerable. And some producers are better able to standardize production than others. By virtue of their ability to develop flexible systems of production, some transnational firms--Chiquita International, Dole, Polly Peck, Geest, Pandol Brothers and Albert Fisher--have been better able to standardize the production of some kinds of food than other firms (Friedland, 1991b:3). The attempt to standardize production involves not only a struggle within firms, what may be called an organizational struggle, but also an intramural struggle between firms large and small. And like the struggle over standards, struggles to standardize products have important consequences for the shape and character of fresh food commodity chains that emerge around the world.

Of course there is a tension between attempts to raise standards and produce standardized goods. It is usually easier to produce low-quality goods consistently than it is to produce high-quality goods. To deal with this problem, firms try to use trademark identification and name brands to insist that standardized products are also of the highest quality. But this is a difficult task, requiring an enormous marketing effort. In addition, the attempt to do both is complicated by the fact that there are so many kinds and varieties of food products involved.

The Impact of GATT

Industry struggles will be greatly affected by agreements reached in the Uruguay Round of negotiations to revise GATT. The sweeping revisions of GATT now being proposed for the first time address issues related to agricultural production and trade. Because GATT proposals would grant standard-setting authority to Codex Alimentarius, extend patent protection to agricultural technologies, reduce agricultural subsidies and tariff barriers, and eliminate restrictions on food exports, they would have a profound impact on the fresh food industry's attempts to adopt standards and standardize commodity production. This in turn will shape the character and location of fresh

food commodity chains around the world (Schaeffer, 1992:27-31).

Although the GATT revisions are enormously complicated and have not yet been adopted formally by the 100-plus member countries (this could come in 1993 if the agricultural subsidy disputes that delayed negotiations during 1991-92 are resolved), there are four proposals that would directly affect standard setting and standardizing in the fresh food industry.

First, the revised GATT would assign responsibility for setting "phytosanitary" standards for agricultural products to Codex Alimentarius, an obscure UN. agency based in Rome (Ritchie, 1990: 214-220). And because GATT dispute-arbitration mechanisms could be used by member countries to compel compliance with Codex standards, this proposal would make Codex the site where industry struggles over many standards would be contested. Although GATT proposals would facilitate the adoption of common standards for the fresh food industry--what GATT negotiators describe as a process of "harmonization"--it would shift standard-setting authority away from the variety of public and private institutions to Codex. As Jean Marc Luc, director of the agricultural division of GATT, has argued, "The current developments underway within the Uruguay Round of Multilateral Trade Negotiations offer the exciting prospect of the Codex standards being used as the basis for the harmonization of national regulations as a long-term objective under GATT" (Ritchie, 1990:219-220).

Currently, voters in California use the referendum process to set standards for agricultural producers and retailers, and government agencies in many countries issue regulatory standards. And private firms, such as Nutriclean, which is based in Oakland, California, conduct field inspections, sample products and certify for retailers and consumers that produce from individual farms meets pesticide-free standards (Proval, 1991:219-220).

Indeed, it is the proliferation of various public and private standard-setting institutions that motivated US trade officials to propose that GATT consolidate standard-making authority in Codex. Many of them believe that US standards are too high. As the California World Trade Commission has argued, "In its zeal to lead the world in regulating chemical use, California may become so out of step with the competition that it will put its $17 billion agriculture industry out of business" (Ritchie, 1990:219). And former US Agriculture Secretary Clayton Yeutter has said, "If the rest of the world can agree on what the standard ought to be on a given product, maybe the United States or European Community will have to admit that they are wrong when the standards differ" (Ritchie, 1990:217).

This consolidation may at first appear "rational," a fair way to harmonize differing standards based on their intrinsic, "scientific" merit. But the shift to Codex will likely shift standard-setting authority away from institutions whose work is now subject to public scrutiny to an autonomous agency that permits little public participation in its decision making and sets standards at a fairly low common denominator. Because official government delegations to Codex are typically composed of scientists representing government regulatory agencies and transnational firms with an interest in low-level standards, the standards set by Codex tend to be low. For example, Codex standards permit imported bananas to contain 50 times the amount of DDT residue now permitted by the United States.[3] (DDT use is banned in the United States, but producers elsewhere continue to apply it to agricultural crops.)

Although most fresh food producers want to consolidate standard-setting authority, they differ over who should assume this

responsibility and whether the standards adopted should be high or low. Small-scale producers of organic fresh foods, for instance, would like the US Congress to assume responsibility for defining the meaning of the term "organic," and producer associations, some retailers and consumer and environmental groups want fairly strict definitions set.[4] Large-scale, inorganic fresh food producers, by contrast, want Codex to assume this responsibility and have it set fairly low standards, which will be easier for them to meet. The outcome of struggles to assign standard-setting authority and determine the levels at which standards are set will greatly affect different fresh food producers' ability to compete.

Second, GATT proposals would extend and protect patent and trademark monopolies around the world.[5] For the fresh food industry, this would provide protection for hybrid seeds and pesticides, the products of biological engineering, and food technologies--everything from food irradiation to invisible bruise technology--that are essential to the "cool chain."[6]

The extension of patent and trademark protection would facilitate the development of standards because many standards possess some technological characteristic that makes them "superior" to others.[7] But while technology contributes to the raising of certain standards, not all standards are based on superior technology. Indeed, standards embodying inferior technology often win out.

For the fresh food industry, the extension of patent and trademark protection to their technologies and products puts them in a better position to advance their own standards. If they can develop technologies that can improve quality--such as a machine that can detect deep bruises that are invisible to the naked eye, or food irradiation technologies that improve shelf life--they are in a better position to insist that products embodying these qualities be adopted as industry standards. And if they own or control patents to these technologies, they would then be able to reap monopoly rents and royalties from other producers who need to use these technologies to meet new standards.

The end of subsidies for agricultural research (see below) may also shift research and development from land grant universities in the United States to private industry or create a division of labor between "basic science," which would be conducted at public institutions, and "applied" or patentable science, which would be undertaken by private firms. So, for example, Superior Farming of Bakersfield, California, which currently owns "the largest privately funded research and development programme for stonefruit and table grapes in the world," recently announced that it had set up "a new research advisory committee comprised of some of the world's leading scientists and researchers for plant biology and breeding" (eurofruit, 1989c:4). This sort of positioning may indicate a real shift away from public to private research, which GATT proposals may further assist.

Third, GATT proposals would phase out, reduce or eliminate government subsidies for agriculture and reduce tariffs and duties on imported food products. For the fresh food industry, these measures would facilitate the development and extension of standardized commodity production, which would help producers make goods more "consistently."

Subsidies and tariffs affect consistency because they affect the location of commodity production. Subsidies and tariffs encourage producers to locate in places with high subsidies and/or high tariffs, typically in Japan, the United States and the European Community. Although producers reap some economic benefits from this, it hurts their ability to produce foods consistently. When the sites for commodity production are geographically

limited, it is difficult to produce a wide range of products throughout the year or to switch to alternative sites in the event of poor weather and other variable factors of production. By eliminating subsidies and tariffs, it becomes easier to develop commodity production in different areas of the world and to create flexible systems of production that can, in a pinch, maintain constant levels of production.

The fresh food industry has already developed fairly extensive commodity chains around the world, which can produce some standardized foods consistently. But the GATT proposals would accelerate this development and make it possible for the industry to develop commodity chains for a larger number of food products.

Part of the problem for producers is that intensive agriculture, particularly a heavy reliance on pesticides, may force producers to relocate regularly, either because pesticide resistance results in declining yields or because pesticide residues begin to exceed import standards. Either development would make it difficult to maintain consistent production.

The extension of commodity chains that produce foods for export to core markets has important consequences for people where export production is located. As many others have noted, an increase in land devoted to export production in many Third World countries typically results in the displacement of small-scale farmers and subsistence production, which contributes to hunger among residual rural and displaced urban populations. Export-oriented agriculture is promoted by First and Third World governments alike as a way to promote exports to earn cash for non-agricultural industrial development. They argue that by specializing in export agriculture, Third World farmers will earn what they need to buy cheap grains imported from producers in the core. This might work if Third World producers received high prices for their export produce and if rural and urban populations could obtain the kind of work that would pay them enough to purchase "low cost" grains. Because these conditions do not often occur, many go hungry.

And fourth, GATT proposals would reduce or eliminate governments' ability to restrict the export of food products or natural resources, even in the event of domestic food shortages. These proposals, like previous ones, would enable fresh food producers to develop more extensive commodity chains because producers would be assured that their goods would not be expropriated or nationalized in the event of a local food crisis. Because producers need consistent production, they want to minimize possible disruptions before making large-scale investments in commodity chains that reach across numerous political jurisdictions. For producers, the elimination of export restrictions greatly reduces possible disruptions of food-based commodity chains. These measures guarantee food security for consumers who can pay for food. But this security is purchased by making food supplies insecure for those with less buying power.

Conclusions

In sum, GATT proposals would affect the fresh food industry's efforts to raise standards and standardize production and shape the character and geography of emerging commodity chains. These developments have important consequences for producers and consumers around the world. For example, a fresh food system constructed around "organic" standards and standardized production by small-scale producers would look very different from one built around "inorganic" standards and standardized production by large-scale producers and transnational corporations.

Although GATT proposals are being advanced by the latter, who would likely benefit from them, the battle over the meaning of quality and consistency is not yet over. Small-scale organic farmers, some retailers and consumers are attempting to give quality and consistency a different meaning, and they are making headway, if only because the standards of "quality" being advanced by inorganic producers have failed conspicuously in recent years. The public reaction to the use of Alar on apples indicates that the standardization process is the object of considerable struggle and that the outcome is not pre-determined.

Notes

1. Williams notes, "It is very significant that the popular use of standards--laudatory--is at odds with the popular use of standardization--derogatory" (Williams, 1977:248-249).

2. As Gerhard Prosi, director of the Institute of Economic Policies at the University of Kiel, said, "In this world where differences occur naturally between each and every nation, uniformity is impossible to achieve" (eurofruit, 1989d:5).

3. See a comparison of Codex and US standards for pesticide residues in various fresh foods in Ritchie, 1990:216.

4. Legislation introduced in the US Congress would set minimum national standards for produce grown using "organic" methods and have the Department of Agriculture certify farms meeting these standards. Supporters of the measure debate whether the standards should be high or low. "If standards are too loose," argues Robert Bildreg, president of RLB Food Distributors, "it would destroy the market [because] anyone could sell produce as organic" (Brumback, 1990:43).

There is also considerable debate over whether states would be permitted to adopt stricter standards. "I would strongly encourage federal preemption," says Jim Wiers, a member of the Vegetable Association's organics task force. "The pressure for that will come from retailers. Retailers need to have a consistent supply, and to do that, they need products from several states. So they need consistency" (Brumback, 1990:43).

5. US negotiators want to increase the duration of patents from 17 years to 50 years and guarantee them worldwide. The United States is keen on this issue because multinational firms want to clamp down on the "piracy" of trademarks and patents by other countries. In 1991, for example, the film industry announced a unilateral boycott of the Soviet Union because Hollywood films and videotapes were regularly pirated there. And US Trade Representative Carla Hills recently imposed sanctions on China for its infringement on US trademarks (Bradsher, 1991:C1).

6. According to Bruce Upchurch, an agricultural engineer with the US Department of Agriculture, scientists have developed "a special camera filter and a specific computer programme [that can be used] to identify bruises that can't be seen with a naked eye (eurofruit, 1989b:2).
The "cool chain" is a system of technology and expertise used to maintain food under chilled conditions from the point of production to the point of consumption (Friedland, 1991a:2-3).

7. For example, the "chronometer," a timepiece accurate over long periods of time at sea, made it possible for the British navy to map the world using the Greenwich Meridian. Without the technological means to make accurate charts, the British attempt to raise Greenwich as the global standard of time and space would have been stillborn.

British chronometers were not the technological equal of French-built chronometers, which were markedly superior to British watches. But superior French technology did not help the French raise a Paris meridian as the global standard because the French navy, bottled up in French ports by the British fleet during the Napoleonic Wars, was unable to chart the world's oceans with French watches in hand.

"What did Britain gain by securing the means to determine longitude and establishing the meridian at Greenwich? For mariners the means to determine longitude at sea promised safer navigation, cut losses to the shipping industry and reduced insurance costs, which, with the growth of Lloyds, enabled Britain to secure a larger share of policy-writing worldwide. The development of the marine chronometer stimulated the watchmaking industry

in England. The investment in the research necessary for the development of standardized time and space aided scientific inquiry, particularly in the fields of math and astronomy, and lent prestige and monetary support to the scientific community. Improvements in cartography made possible accurate sea charts but also more detailed land surveys, which were essential to the subsequent development of railroads and industry. Important military advantages accrued to this standardization. For example, the Admiralty's survey of the eastern seaboard of North America was completed just in time to aid the British naval forces during the American War of Independence....The ascension of the Greenwich standard of time and space reflected the gains Britain had made in producing a system of time and space on a global scale, which in turn reflected on Britain's ability to dominate other fields throughout the world" (Schaeffer, 1982:81,82).

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RESUMEN

La Estandarización, el Gatt y el Sistema de Alimentos Frescos

Este trabajo examina las luchas en la rama de las frutas y vegetales frescos (FVF) por definir «la calidad y la consistencia». Utiliza la teoría de «estandarización» --el proceso dual de adoptar productos «estándar» y el desarrollo de mercancías «estandarizadas»-- como una forma de conceptualizar estas luchas. A la vez, dentro de este contexto, este trabajo analiza las negociaciones de la Ronda de Uruguay y el Tratado General sobre Tarifas y Comercio (GATT), argumentando que la adopción de las propuestas del GATT de elaborar un Código Alimentario responsable del establecimiento de estándares industriales, extender la protección de patentes a las tecnologías agrícolas, reducir las tarifas y los subsidios agrícolas y eliminar las restricciones a las exportaciones agrícolas afectará los esfuerzos industriales para elevar los estándares y uniformar la producción de mercancías.

***Robert Schaeffer** enseña sociología de la globalización y sociología del medio ambiente en la universidad de San Jose State, en California, EEUU. Acualmente trabaja sobre el Tratado Norteamericano de Libre Comercio.*

New Functions for Rural Space in Western Europe: A Challenge for Agricultural Techniques

Pascal Byé and Maria Fonte

Concentration of production in an ever more limited territory and urbanization have shaped the evolution of "industrial techniques" for agriculture in this century. Consequences of these processes are the *segmentation* of rural space, the *disappearance* of indigenous cultures and techniques, and the *depopulation* of vast areas. Dynamics of rural spaces are disconnected from agricultural development, because space is no longer the *physical place* where polyvalent forms of production and social organization are composed. Instead, food is produced in the *economic space* for optimal allocation of resources. The diffusion of industrial techniques in agriculture, while successfully increasing production and yields, nonetheless is limited in its ability to manage excess farmland and to guarantee an efficient reproduction of natural productivity and renewable natural resources. Economic and social crisis, as well as growing urbanization, have allowed new social demands for rural space to emerge, particularly for health and environmental protection and recreational activities. Even adjusted "Fordist" techniques do not seem able to satisfy them. Finally, the co-evolution of economic, social and technical factors may favor the emergence of a new *science-based* and *information intensive* technical paradigm, for the management of diversified and sustainable models of agricultural development.

Pascal Byé is professor of Sociology at INRA-ESR, Montpellier, France. He has researched the role of science and technology in agriculture and change in the agricultural sector. **Maria Fonte** is professor of sociology at the University of Naples, Italy. She has recently researched the symbolic dimension of the food system and biotechnological research in agriculture.

Introduction[1]

Two factors profoundly transformed the relationship between agriculture and rural activities: increasing productivity per unit of land on one hand, urbanization on the other (Jacomy, 1990). Concentration of production in an ever more limited part of the territory is considered an essential component of agricultural revolutions in Europe (Bairoch, 1989), and is accentuated as industrial inputs increasingly substitute for inputs traditionally mobilized in agriculture and in rural spaces. The use of renewable natural resources and the valorization of natural productivity of cultivated ecosystems are replaced by an external contribution of energy (Delucchi, 1990). Through constant improvement of land-using techniques any *spatial* constraint in agro-food production is overcome (Mendras, 1984), so that land progressively loses its character as a "limiting factor." Policies aimed at limiting supply by imposing a "quota of production" ratify, in fact, the success of land intensification. They reinforce the conviction that agriculture may continue to increase volume, while decreasing occupied land.

Concentration of production also accelerates the disappearance of indigenous cultures and knowledges, leading to *depopulation* of vast part of the territory on one hand (Gravier, 1960; CEC, 1987) and *rurbanization* on the other (Bayer and Roux, 1976). Space mobi-

lized by production systems, social organizations and cultures based on the valorization of the *ager*[2] (Mendras, 1984) are substituted by productive, social and cultural organizations linked to urban development (Chamboredon, 1985). Increasingly, the dynamics of rural spaces are disconnected from agricultural development, insofar as *space* is not anymore the physical place where polyvalent forms of production and social organization are composed at the local level and food is produced in the optimal allocation of the *economic space* of technical and social variables. Intensification of exchanges substitutes for optimal management of local resources.

Among the consequences of the diffusion of the industrial model of production in agriculture is, then, the inability of the economic system to guarantee the rational management of a vast part of the territory. The concentration of population in the urban-industrial areas raises, on the other side, new social demands, particularly in connection to health and environmental protection and recreational activities. All these demands imply a rehabilitation of nature and natural resources. (Leynaud, 1971; Maclouf, 1985; Kayser, 1990). The question we pose is concerned with the ability of the prevailing agricultural technical model to satisfy them[3].

The exposition of this article is organized in three parts. First of all, we would like to show how the social functions fulfilled by agriculture in the last forty years have brought about a *segmentation of rural spaces* in western Europe in general, and in France and Italy in particular. In the second part, we shall analyze the relationship between space segmentation and the evolution of industrial techniques, leading to an *increasing surplus of farmland*. Considerations in the third part are concerned with the emergent constraints of the diffusion of the "Fordist" model of production in agriculture. Finally, the problem of diversification and redefinition of agricultural techniques is posed.

Urban Growth and the Segmentation of European Rural Space

After decades of rural exodus, the demographic trend in Western Europe seems to indicate a new interest in rural areas. In France, the 1982 population census reveals that the rural population increased three times more quickly than the urban population (Chapuis and Brossard, 1986). But demographic and economic evolution in the rural counties are primarily a function of increasing urbanization, rather than being linked to the dynamics of agriculture (DATAR, 1988). The weak demographic growth of the "peripheral" areas--the more distant ones from the big metropolitan areas--where the small mixed farm is dominant, is contrasted with areas of "industrial" and "periurban" agriculture in which rates of growth are increasing (Jayet, 1988). Modes of articulation and integration into the economic system as a whole are the key variables in differentiating rural areas (Pernet, 1990; Fabiani, 1991), which are either under the influence of their industrial and urban environment, or in a process of marginalization.

Urbanization as an Element of Spatial Restructuring

The unequal access to modern agro-food production techniques and to the urban development model is the main criterion of differentiation of rural space in the EEC. The Commission of European Communities (CCE, 1988) distinguishes three groups of regions in its territory. The first group is defined as *under the pressure of modern evolution:* this area comprises the regions around metropolitan areas (the South-East of England, the Paris-Brussels-Bonn triangle), the large plains in

developed areas (the Po Valley in the north of Italy, East-Anglia, The Netherlands, Northern Germany, etc.) and the coastal areas, which benefit from high population density, diversification of employment and modern agriculture. A second group is in a situation of *rural decline*: agriculture is still an important economic activity, but farms are small and active populations emigrate towards urban areas so that the remaining population is older. The elderly farmers cannot find any complementary employment as a source of additional income. The third group is the extreme case of *particularly marginalized areas* , the less well-endowed mountainous areas and islands, particularly hit by depopulation and land abandonment.

Schmitz (1988; CEC, 1988) delineates, on parallel bases, three main axes of development in agriculture and forestry in the European Communities (EC). The first comprises staple food crops and bulk wood with a low value-added component, which are determined by the imperatives of mass industrial supply and the constraints of world competition. Procedures of intensification (mechanization, high yield) should continue to apply to them. The second axis of development will involve products with a much higher value-added component, and would include *quality* or *regional* food or non-food products. The potential areas for these products are located around the metropolitan areas, where the access to high-income consumers, who are ready to pay more for quality, is concentrated. This production is also largely based on intensive techniques. A third line of development involves site planning and development of sports, tourism, leisure activities and environmental preservation pursuits. In this area, industrial agro-food technology is not adequate for a strategy of development. It is, then, necessary to redefine strategies of natural resource preservation and management, which satisfy the new environmental and social functions.

The Marginalization of Agricultural Spaces

While in the dynamic agricultural areas we find a "modern, structured, competitive agriculture" (C.G.P., 1989)--which with the forecasted increases in productivity could in the short term provide the essential share of agricultural production--weak rural areas continue to expand. Estimates for western Europe show that "just a small fraction of agriculture has been modernized in the last twenty to thirty years, about 20% of the agricultural population providing about 80% of total production." Agriculture is no longer a dominant activity in any EC region. In only four regions out of sixty, does agricultural production represent more than 10% of the total regional added value (Schmitz, 1990; CCE, 1988 and CEC, 1988).

In France, demographic growth in the "deeply rural areas" (Pernet, 1990) is four times less rapid than in other rural areas. The phenomenon is cumulative and expands as these are the areas where farms are disappearing in greater numbers (SCEES, 1988). Moreover, agro-food industries are increasingly concentrating in industrialized areas. Bontron (1987) finds that, from 1975 to 1982, the evolution of employment in agro-food sectors in France reveals a re-location of these activities from peripheral areas to the west for dairy industries, to the central-northern regions for industrial crops and to the south-west for specialized crops. This spatial concentration of industrial plants is accompanied by the concentration of investment. Between 1983 and 1986, 60% of the investments in excess of 15 million Francs were concentrated in five regions[4].

Italian agriculture is differentiated in three main zones. In the northern regions, agriculture is specialized in milk, meat, cereal, grains

and industrial produce (Lombardia and Emilia Romagna, for example, produce 75% of the total Italian milk product; Piemonte and Lombardia almost all the rice, etc.) and is strictly integrated in the industrial upstream and downstream activities. In the *central area*, agriculture can be considered a complementary or integrated activity to the *industrial district*, socially characterized by a strong development of cooperative associations. In the *southern regions*, specialized mainly in Mediterranean products such as vegetables and fruit, wine, and olive oil, the marginalization of agricultural activity, correlated with an unsuccessful industrialization policy, had dramatic desertification and social disruption effects (Formica, 1975; Fabiani, 1991). This segmentation reproduces itself in a cumulative fashion, not only because EEC policies have always been more favorable to continental products, but because the technical, organizational, financial, marketing, preservation and transformation--i.e. the agro-industrial--capacities are increasingly concentrated in the most advanced regions of northern and central Italy (Mingione and Mottura, 1987).

In these conditions, the reproduction of agriculture in areas where family farms are dominant seems ever more difficult. Rural activities--trades, small firms, services--decline rapidly, following the decline of agriculture, which is the traditional base of the social and economic structure. However, the tendency towards the marginalization of agricultural space goes together with the development of an "interstitial agriculture", i.e. agriculture situated between rural and urban space, in the peri-urban areas.

Peri-Urban Agriculture: an "Interstitial" Activity of Urban Growth

The development of agricultural activities plays an important role in the urban area, in terms of the function of an urban consumption model. This type of agriculture, one that occupies the interstitial space around the metropolitan areas, adopts intensive industrial techniques and assumes new functions. Its development in Western Europe evolves in two forms: in the periphery of metropolitan areas, as a response to demand for fresh agricultural products and specific services (CEC, 1988); and in the industrial districts, articulated around a close network of small and medium enterprises for the production of *quality* food.

The first type of agriculture expands because of the close relationship between agriculture and final demand. "Rural economy ceases to be production economy, in order to become, as the others, services economy. Consumption services, themselves dependent on the level of population, predominate" (Drevet, 1988). It is possible to observe this phenomenon in the periphery of some European metropolitan areas. This agriculture is still supported by industrial production techniques, but innovations are permeating organizational, distribution and information techniques, with regard to models adopted in the specialized areas. It provides a very small part of global production, but is relatively more important in protected networks and niches. Relatively unaffected by global agricultural price policies, it is nonetheless very sensitive to variations in the prices of production factors (land, labor, water) and to environmental policies (regulations concerning the use of industrial inputs, etc.) which can progressively induce a change in its productive choices.

The second type of interstitial agriculture is based on systematic relations between agricultural and local knowledge (van der Ploeg, 1990). It is localized in specific industrial districts, producing traditional products which have recently met the new demand for quality under commercial labels. This is the case for wines in the *zone di origine controllata* in

France or in Italy, for the *prosciutto* in some areas of the North of Italy, for the parmesan in Emilia-Romagna, for the production of fresh vegetable and fruit in some agricultural areas, and for the development of agro-tourism and green tourism.

Definitely it is in the areas closest to cities that agro-food techniques are most diversified. But, currently, these techniques, even in the case of quality production, remain heavily dependent on urban market dynamics and do not have space management as an important goal. Consequently they cannot be transferred as a whole to marginal land, set in surplus by the progression of industrial techniques. In other terms, they cannot be the alternative to local traditional techniques elaborated in rural areas.

Spatial Concentration of Production and Farmland Surplus: The Role of Industrial Techniques

The diffusion of *industrial techniques* in agro-food production, substituting for *traditional techniques,* contributes at the same time to the process of rural space segmentation and to the production of surplus farmland. While these techniques were very successful in their objective of increasing production and yields, they nonetheless show their limits in their inability to manage excess farmland and to guarantee an efficient reproduction of natural productivity and renewable natural resources.

Traditional agricultural techniques constitute a heterogeneous set, strongly oriented at the local level and tightly linked to natural and social ecosystems, with which they co-evolve (Barrau, 1990; Mendras, 1972). They are the result of a long-standing process of elaboration, endogenous to the agricultural sector and the rural community, and constituted by a reiterative and continuous process of observation and experimentation. As such they are an integral part of traditional agrarian "systems" (Bloch, 1973) or "landscapes" (Sereni, 1972), which are used to differentiate--by endogenous characteristics--the "agrarian zones". The "piantata"[5] which characterized the Po valley in the North of Italy (Sereni, 1972), and the "sistema cerealicolo-pastorale" or the "sistema arborato" in the South of Italy, in the first half of this century (Prampolini, 1985; Rossi Doria, 1969) imply specific social--landholding structure, social and communal organizations--economic and technical relations, which are elaborated in different pedologic, morphologic and climatic contexts, utilizes the local potential of the ecosystem to the utmost. An important element in this environment is the relationship between the peasant community specialized in production and the rural community oriented towards the supply of goods and services upstream and downstream from agriculture. Herein lie the ideas of *coherence and interconnectedness* of local productive systems.

Traditional techniques evolve, integrate or adapt norms and processes elaborated outside their own history, as the adoption of new varieties testifies. *They are, nonetheless, unable to oppose the diffusion of industrial techniques when urbanization burdens agriculture with an expanded demand for food.* The unity, complexity and internal logic of traditional systems is then broken by the broad invasion of industrial techniques. Dependent on distant institutions for the generation of technological innovations as well as for the supply of production inputs, rural communities lose control over their production system (Altieri and Merrick, 1988). The farmer becomes the "recipient" of transferred techniques (Rogers, 1971; Benvenuti, 1990). Traditional skills and knowledge regarding the use of plants, the breeding of animals, the relations between

agrosystems and natural ecosystems become progressively and inevitably obsolete and useless for the aims and the evolution of the agro-industrial sector.

In the short term, the increasing homogenization of agro-food techniques is an important factor for the provision of food to expanding markets and the development of some agricultural regions; in the long term, however, it accelerates the destruction of rural space and its conversion into an "environment" (Mathieu and Jollivet, 1989) without agriculturalists.

Artificialization of Techniques and Spatial Concentration

The modernization of European agriculture in the last 20-30 years has created a sharp upturn in the productivity of both labor and land, coupled with marked concentration and specialization (CEC, 1988:70; Bairoch, 1990) and a global downturn in the area under cultivation. Arable land fell by 11 million hectares between 1961/65 and 1983 (CCE, 1988), while a 15-16 million hectare surplus of farmland is estimated for Western Europe in the year 2000 (CEC, 1988: 28). Everywhere in Europe, intensification has led to concentration of production in the plains and abandonment of the mountainous regions.

The increase in productivity stems from a technological model increasingly relying on industrial inputs: machines and high-yielding varieties very responsive to the use of chemical inputs (CEC, 1988). Yields have risen constantly, together with the use of synthetic fertilizers[6]. Therefore, the intensification of production is essentially the consequence of the substitution of traditional techniques, which are developed and improved in the rural space, with techniques which are the product of urban and industrial development. If "rural" and "urban" were once intended to represent a spatial division of labor between agriculture and manufacturing industry, the latter making a highly intensive use of space, the former an extensive one (Newby, 1980), this distinction is becoming progressively obsolete[7].

Agriculture radically transforms its cultural practices and its multi-purpose organization, as well as its priorities. Its main objective of the management and the reproduction of local agro-ecosystems is displaced by the production of standardized goods (commodities) in increasing quantities and at decreasing costs for the agro-food industry and the urban markets. Upstream and downstream, techniques in agriculture are shaped and directed by the agro-industry, which brings about a fragmentation of the agricultural production process, each segment being reconnected vertically in the "filiére", rather then horizontally in the rural space. The production process ultimately becomes *artificial*, using products and processes defined outside the agricultural space. It concentrates itself exclusively on the spaces where it can be competitive with respect to international pressures and urbanization processes, and marginalizes spaces whose use is not yet well defined by an increasing market demand[8].

The End of the Rural World and the Disappearance of its Traditional Techniques

Already in the '60s sociologists were talking of the crisis of the rural world (Gans, 1962; Pahl, 1966), as a socio-economic system characterized by the peculiarities of settlement patterns and contrasted with the urban way of life. In the previous sections we have stressed the "endogenous" expression of this crisis, i.e. the crisis of traditional agriculture, the main support for rural social and economic structure. Furthermore, industrialization, urbanization and state intervention break down any form of local autonomy and bring an increasing interdependence and interaction between "urban" and "rural" worlds, converting mod-

ern society into a standardized mass society, with a standardized way of life (Newby, 1980; Mingione and Pugliese, 1987).

Processes of concentration and intensification of agricultural production are related to this demographic evolution. Rural space which does not conform to the demands of industrial agriculture undergoes a process of *depopulation*[9]. Marginal rural areas may resist the diffusion of industrial techniques (Pernet, 1985), but are not able to compete with their efficiency with respect to market objectives. Depopulation and adoption of industrial techniques are then at the heart of the same process: the disruption of techniques and knowledges inherited with rural culture.

A reduction in the number of farms, primarily small marginal ones, leads neither to the consolidation of big farms nor the definite disappearance of small farms. But the social and economic organization known as the family farm, based on a proportionate growth of the family and the farm unit (i.e. consumption and production) loses any meaning. Because of the managerial characteristics of professional agriculture, the geographical mobility of the labor force and the diffusion of pluriactivity as inter-penetration of agricultural and other activities, the agricultural labor market no longer works according to relatively autonomous mechanisms. Labor is "individualized" (Friedmann, 1980), with professional profiles in agriculture, even in the case of peripheral areas --losing its specificity in respect to the other sectors of the economy (Mingione and Pugliese, 1988).

In accordance with the vanishing of their field of application (i.e. traditional agriculture, cf. Weber, et al. 1986), fragmentation of work in agriculture--which multiplies the number of worker categories--finally reinforces the gradual impoverishment and disappearance of knowledges and techniques at the base of peasant culture and practices.

New Functions for Rural Space and Limits of Industrial Techniques in Relation to Agriculture and the Environment

The effects of "Fordism" in rural areas appear more acutely in the context of a process of economic restructuring and social crisis. New "post-Fordist" social models are emerging characterized by the search for flexibility, diversity and sustainability.

Therefore, despite the ongoing process of homogenization of agricultural techniques for the production of commodities, a diversification of technical orientation emerges as a necessity in some areas. The multiplication of economic, technical and social constraints both in peri-urban agriculture and in the peripheral areas operates in favor of technical adjustments, which must take into account the modification of price systems, rising environmentalism, and unequal endowment of production factors. In any case, these adjustments continue to refer to a technical model idiosyncratically working for a constant alignment of empirical and diversifying processes within uniform industrial processes; therefore, rather than contrasting the industrialization of agro-food techniques, they reinforce it. For example, the operation of anti-pollution norms may induce an improvement of the utilization of phytosanitary products, without questioning their existence. Generated largely under industrial control, these adaptations of "Fordist" practices (Boyer, 1991) still retain their limits in relation to the solution of environmental problems and the management of natural ecosystems.

Currently, about 80% of the Western European population lives on less than 20% of the available territory, and this concentration seems set to continue. Therefore, we may start

asking whether industrial techniques which seem so pertinent to increasing agro-food production, will also be able to manage surplus farmland--freed from any productive constraint--according to the new functions of the "post-industrial" society, i.e. for a more efficient utilization of natural resources and better environmental management (Green and Yoxen, 1990; CCE, 1988; OCDE, 1988).

The Adjustment of the Industrial Paradigm

Under the pressure of economic crisis, health and environmental problems on the one hand, and new scientific developments on the other, many factors--increasing costs, instability of price systems, re-orientation of agricultural policies among them--have recently contributed to changes in the evolution of industrial techniques applied to agriculture, which seems to be reverting to a regime of diversification (Byé and Fonte, 1991). *Extensification* of production is, for example, promoted by agricultural policies as an immediate response to excessive intensification, commodity surpluses or environmental damage. Taken together the new practices give an impression of a widening in the range of techniques, which is interpreted by some authors (Pernet, 1982) as a check on the irresistible expansion of industrial techniques in the agro-food sector (Servolin, 1982).

However, this "reopening" is based on the very same *foundations* and paradigms which led to the artificialization of agro-food techniques and which contrast with the evolution of the natural ecosystem. Behind the improvement of the system flexibility, the principle aim is still mass production through standardization. Therefore, the multiplication of technical adjustments gives strength to industrial techniques and the actors who promote them, obeying the very same productivist principles.

Thus, the industrial paradigm still persists, despite a multiplication of technical practices. It may give a prompt response to problems of agro-food provisioning, improving, for example, regularity of supply, homogeneity of products and food quality. However, as long as this paradigm is not based on renewable sources of energy, continues to produce an excess of farmland and food, and destroys the possibility of local forms of production, it does not solve the most fundamental contradiction between the techno-sphere and bio-sphere, i.e. the problems linked to the conservation and management of renewable natural resources (RNR). Similarly, the extensive practices recently encouraged by EEC policies are based on the simple extensification of industrial intensive techniques, i.e. on the simple principle of "less industrial input." Within a long-term perspective these practices seem unable either to maintain and valorize natural ecosystems or to re-integrate marginalized areas in the social and economic development process. Techniques elaborated by the logic of increasing production through an increasing utilization of industrial inputs can not be easily transformed into techniques aimed at the management of rural space and diversity of species, the improvement of food quality or the maintenance of natural productivity. The disappearance of agro-rural communities, which were in the past able to guarantee the RNR reproduction (Ceron, 1987), endangers the survival of traditional techniques, which have often acted in the past as a buffer against the negative impact of industrial techniques in agriculture.

New Functions for Agriculture and New Science-Based Techniques for the Management of RNR

While still directing technical choices towards land-saving practices, the growth of urbanization--with its attendant problems of pollution, overcrowding, and social conflicts--also generates new needs, which could transform models of territory use and induce a change of

paradigm in the framework of a *multi-purpose* model of space management (CEC, 1988). Rural space becomes the main source for the provision of services (immaterial goods or "non-product" demand) and production factors which are relatively less commodified: air, water, recreational activities, health goods, and other "secondary" products. Marginalized in its productive role by the expansion of urbanization, it may be re-evaluated and may acquire new roles, which can be re-composed around four general functions:

1) *reproduction functions* of ecosystems and societies. Space is the main support on which natural and cultivated ecosystems reproduce themselves. Its degradation--due to desertification and artificialization of techniques--menaces the conditions of this reproduction, exactly when the conservation of preserved ecosystems becomes a public good and one of the main sources of biodiversity. This biodiversity is the base of food security, ecosystem stability and a necessary resource for the development of new plant biotechnology.

2) *a deconcentration and circulation function* of material and immaterial goods. Desertification increases the costs of managing residual rural communities and traditional agriculture, as well as the economic, social and environmental costs related to an increasing concentration of people in urban areas; unemployment, pollution, and social conflicts are expressions of these costs.

3) *recreational and health functions*. The use of rural areas is commodified, through the development of leisure activities and services (natural parks, sport sites, rural accommodation structures and infrastructure), which contributes to the satisfaction of the urban consumer's new needs: fresh products, relaxation from urban stress, direct contact with the food producer, and a return to nature.

4) *security function*. Freed from agricultural and rural activities, space constitutes an uncontrolled area where risks of fire, pollution and natural catastrophes are accentuated. These increased dangers are in contrast with the need for "security" that emerged from urbanization. This need is expressed in the over-organization of all spaces reintegrated in the urban sphere: holidays, tourist or leisure centers. Costs of guaranteeing security increase with desertification and with the "professionalization" of the functions linked to management and supervision of "nature."

The emergence of these new functions for rural space reveals both the inadequacy of agro-food techniques, and the social and economic unsustainability of lifestyle derived from the industrial-urban culture. Up to now these new functions of space utilization have been satisfied either through the valorization of residual, traditional techniques or through specific investments and techniques, elaborated and adopted in order to cure or repair inconveniences deriving from the large scale adoption of Fordist techniques. Examples of this sort are therapeutical substances directed towards consumers' protection, animal antibioties, applications of biotechnologies in order to solve problems of salinity or to induce pest resistance in plants (Buttel, 1989), and promotion of extensive techniques. But norms and regulations increasingly become a necessary instrument of control and a substitute for more environmental/health-friendly techniques. Actually, industrial societies lack a common base of knowledge and techniques able to give an adequate answer to these new demands, in particular the management of space and territory. The challenge for today's science and technological research is then the redefinition of a technical paradigm, integrating three main axes:

1) a modification of the *organization of agro-food production*, from specialized filiéres centered on a single product, towards multi-purpose, polyvalent systems, where the production of goods is associated with the production of services and integrated into new consumption and reproduction goals. Flexibility aimed at the *management of diversity* is the requirement of a technical system in this case.

2) a modification of the *consumption system*, integrating objectives of food quality with new forms of utilization of natural spaces for health and recreational (leisure, sport and touristic) activities. The development of low impact, diversified techniques for agriculture, agro-forestry, and agro-tourism must be integrated into a restructuring of markets, which allows the articulation of global and local forms of consumption.

3) a modification of the *reproduction system*, that is a new model of utilization of natural resources (air, water, and landscapes), which takes into account their transformation into *public goods*. The management of complex systems in a context of *market failure* must be taken into account from a technical point of view.

In general, policies must then be directed toward the implementation of diversified forms of production, consumption and distribution, which also implies taking into account both *market and non-market* objectives. In the specific case of science and technology policies, a re-orientation of science and research is required towards *science-based, information intensive* technological systems, aimed at the management of diversity.

Conclusion

In the context of the post-Fordist crisis of Western Europe, various economic and social factors may favor the emergence of a new technical paradigm in the domain of agriculture and natural resources management. In this article we argue for the relevance, in this respect, of the management problem of surplus farmland created by the industrial model of agricultural development.

The existence of factors supporting a new technical paradigm is a necessary, but insufficient, condition for its emergence. We can see today the future of agriculture in Western Europe as an alternative between two different paths of development. The first valorizes the "inertia" effects of the Fordist model, often referred to as a neo-Fordist model;, it is based on segmented global markets (bulk or commodity markets, quality markets and natural reserves or "environment") and perpetuates the segmentation of rural space--almost a negative image of the "three fields" agriculture of feudal memory. Input-intensive industrial techniques, mainly geared towards the objective of production, is still the *technical reference*, while the *technical challenge* is to increase the sustainability of industrial agro-ecosystems on one side, while elaborating new techniques for the management of rural space on the other. The question we raise with respect to this path relates to the possibility of successfully facing these challenges without radically changing the premises of the industrial model of development.

The second, more radical, path would imply moving towards diversified, *multipolar* agro-food models of development, in which objectives of production are strictly linked to objectives of natural resources re-production. Sustainability is in this way incorporated in the technical model as a *goal*, rather than a constraint, which implies moving toward a re-

conciliation of the techno-sphere and the bio-sphere, taking into account the characteristics of the local agro-ecosystems and rehabilitating their natural productive potential. From a technical point of view, agro-food technical systems would respond to the same logic as the techniques geared to the management of natural ecosystems. The technical challenge in this case refers to the possibility of guaranteeing high levels of food production inside the functioning logic of "natural" (as opposed to "artificial") agro-ecosystems.

Surely an important task for social scientists in the immediate future is to consider the social and economic conditions that would make the full emergence of the new technical paradigm possible. By restricting our attention to science and technology, we can, however, underline the relevance of this with respect to the transformation of research policy and research methods geared towards the rehabilitation of natural productivity and the management of agro-ecosystems diversity[10].

Notes

1. This article is an extensively revised version of a paper presented at the 36th Annual Meeting of the American Sociological Association, in the special session: *Social Change in Rural Economy and Society in the Late Twentieth Century: Comparative Perspectives*, organized by Prof. Frederick H. Buttel, Cincinnati, Ohio - August 27, 1991.

2. "Ager", the Latin word for countryside, is part of the etymological root of "agriculture".

3. These general considerations in particular concern more industrialized countries, where increases in agricultural production rest mainly on increases in yields. They apply only partially to Third World countries, where often the increase in production is reached through the extension of cultivated land. Nonetheless, even in these countries, depopulation of regions in which traditional agriculture dominates can be observed.

4. They are: Rhône-Alpes, Bretagne, Pays de Loire, Nord-Pas-de-Calais, Lorraine.

5. It was a system of large fields interrupted by trees. In the fields, crop rotation practices were particularly long-standing. The main form of farm management was sharecropping.

6. Between 1969-71 and 1983 the average increase for Western Europe of fertilizer consumption per hectare was: +67% for nitrogenous fertilizers; +15% for phosphate and +19% for potash (CEC, 1988: 15).

7. While the area of utilized farmland decreases, agricultural production increases constantly in Western Europe, with an annual average growth of 2% in volume in the '80s. Since agricultural demand increases only by an average of 0.5% per year (CEC, 1988), agriculture faces a double challenge: the management of agricultural surplus, mainly through the development of foreign trade, and the management of intersectorial and interindustrial relations.

8. As a result of this process, today we observe a European agriculture which is radically different from the '50s. Judging by the capital input per work unit and by labor productivity, it resembles heavy industry; it is publicly financed and highly dependent, both downstream and upstream, on industrial development (CEC, 1988; CCE, 1988) and divided into many differentiated and specialized productive sectors (Mingione and Mottura, 1987). On one hand there are big intensive farms, using the best available technology, which specializes in cereal production in Eastern England (forage grain) and the Parisian Basin (breadmaking wheat), dairy production in Western France and Ireland, milk and soil-less (hydroponic) crops in the Netherlands, (CEC, 1988: 21). On the other hand, we have different forms of pluriactive and marginal farms, which, though they have little economic relevance, represent a very widespread social phenomenon.

9. Agricultural population decreased from 21.1% in 1961 to 7.8% in 1988 (CEC-12). According to CEC estimates, in 1985 about 10 million people carried out their main activity in agriculture (CEC, 1988: 18), though 18 million lived on farms. In rural areas, farmers may be divided into three cate-

gories: rich "professional" farmers, a high proportion (50%) of whom live on "flourishing" farms of the "central" zone (CEC, 1988: 20); subsistence farmers, who live in the peripheral areas (mainly the Mediterranean regions) and, finally, an "intermediate" group of farmers, who live in a "median" zone, situated between the central zone and the Mediterranean regions (CEC, 1988: 20).

Recent works in France confirm the existence of a "population threshold", located at about 8 inhabitants per km^2, under which any form of social life becomes problematic and any economic investment too costly.

10. With regard to biotechnology development, for example, this process would imply a move away from using science and technology as technological instruments for increasing productivity and toward improving the performance of their utilization as tools for the comprehension of the workings of natural ecosystems; i.e. a shift from applied to generic science.

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RESUMEN

Las Nuevas Funciones del Espacio Rural en Europa Occidental: Un Reto Para las Técnicas Agrícolas

La concentración de la producción en una ahora más limitada parte del territorio y la urbanización han conforma la evolución de las «técnicas industriales» de la agricultura en este siglo. Consecuencia de estos procesos son la *segmentación* del espacio rural, la desaparición de los cultivos y técnicas autóctonos y el *despoblamiento* de grandes áreas. Las dinámicas de los espacios rurales están desconectadas del desarrollo agrícola en la medida en que en espacio deja de ser el *espacio físico* donde las formas polivalentes de producción y la organización social están ordenadas a un nivel local y el alimento es producido en el *espacio económico* de asignación óptima de recursos. La difusión de técnicas industriales en agricultura, exitosas en cuanto a su objetivo de aumentar la producción y los beneficios, muestran a la vez su incapacidad para manejar el exceso provocado de terrenos aptos para el cultivo y garantizar la reproducción eficiente de la fertilidad natural y los recursos naturales renovables. Hoy en día, bajo la presión de la crisis económica y social y la expansión de la urbanización emergen nuevas demandas de espacio rural, particularmente en cuanto a salud, protección ambiental y actividades recreacionales. Aún con ajustes las técnicas «fordistas» no parecen satisfacer estas exigencias. Finalmente, la co-evolución de los factores económicos, sociales y técnicos puede jugar un papel importante en favor del surgimiento de un nuevo paradigma tecnológico, *basado en la ciencia e intensivo en información* para el manejo de modelos diversificados y sostenibles de desarrollo agrícola.

***Pascal Byé** es profesor de INRA-ESR, Montpellier, Francia. Ha realizado investigaciones sobre el rol de la ciencia y la tecnología en la agricultura y el cambio en el sector agrícola. **Maria Fonte** es profesora de la Universidad de Nápoles, Italia. Ella está investigando actualmente la dimensión simbólica del sistema alimentario y la investigación biotecnológica en la agricultura.*

Environmental and Social Consequences of Economic Restructuring in Australian Agriculture

Frank Vanclay and Geoffrey Lawrence

The changing nature of Australian agriculture is such that corporate farms are becoming more common, family farms are disappearing, and the remaining family farms are losing autonomy by the increasing corporate control of commodity distribution networks, by the increasing significance of contract farming, and by new developments in biotechnology. These changes in agriculture have considerable environmental impact and need to be considered at a policy level if widespread environmental degradation is to be avoided. Furthermore, there are enormous social consequences of these changes that have wide ranging effects not only on the nature of farming but also on the nature of community settlement in rural areas of Australia.

Frank Vanclay is a Lecturer in sociology in the School of Humanities and Social Sciences, and a Key Researcher in the Centre for Rural Social Research, at Charles Sturt University, Wagga Wagga, NSW, Australia. He has general interests in rural and environmental sociology. **Geoffrey Lawrence** was the founding Director of the Centre for Rural Social Research at Charles Sturt University, but is now the foundation Professor of sociology at the University of Central Queensland, in Rockhampton, Queensland, Australia. He is the author of *Capitalism and the Countryside*. The authors have edited *Agriculture, Environment and Society: Contemporary Issues for Australia*.

Introduction: Rural Restructuring in the Semi-Periphery[1]

Social change rather than social stability is a characteristic of non-metropolitan regions within advanced capitalist societies. However, change does not occur haphazardly or independently of structural forces within the wider economy but is a direct consequence of alterations within the capital accumulation process. This, itself, is at the very Centre of production (and consumption) relations within those societies. To grasp the nature of change within rural society, it is necessary to understand the dynamics of capital accumulation and to recognize the practical manifestations of patterns of accumulation modified by state regulation.

Structural change has several different types of impacts and occurs at several levels. This paper is concerned in particular with identifying the capitalist processes that are facilitating the increasing influence of transnational agribusiness in the agricultural production of Australia and other semi-peripheral nations, and with the attendant social and environmental impacts of those processes.

Processes Increasing Capitalist Influence in Agriculture

The Demise of the Post-War US Hegemony

An hegemonic relationship between accumulation and regulation is considered to have been dominant since the second World War.

This has been described as 'Fordism' and is a regime typified by Taylorist labor processes, the mass production and distribution of consumer goods, the extension and consolidation of trade unionism, and the development of the welfare state (that is, a basically Keynesian solution to the contradictions inherent in class-based post war capitalism). For reasons associated with changes in the international arena (including the collapse of the Bretton Woods agreement and oil price rises in the 1970s), inflation and commodity price uncertainties in the 1980s, and worldwide recession and intensified competition in trade during the 1990s (see Buttel and Gillespie, 1991, Goe and Kenney, 1991), the Fordist mode of accumulation and regulation is considered by some as being superseded by a post-Fordist regime, one characterized by new industries, production methods, organizational forms, class relations and state policies (see Mathews, 1989).

The extent to which a transition to a full-blown post-Fordist economy is occurring or has occurred, and the characteristics of post-Fordism, are debatable issues. Nevertheless, a significant change is occurring in the organization of transnational capital and in the organization of society. Whether this represents a fundamentally different mode of production, or whether it represents new forms of organization under essentially the same mode of production is not yet clear. It is clear, however, that many post-Fordist characteristics, such as niche marketing, product diversity, decentralized production, transformation of work, and global sourcing, are being adopted by transnational corporations. Despite post-Fordist rhetoric about craft production and intelligent consumption patterns that would reduce the significance of transnational corporations, it is doubtful whether any move to a post-Fordist economy represents any significant threat to their power, and quite likely, post-Fordist patterns of production are being adopted by transnational corporations in order to enhance their operations.

Restructuring of the US economy has resulted in a major decline in traditional sectors of industry--including steel manufacture, automobiles, farm machinery and electronics. Firms have responded to increasing global competition and reduced profitability by retrenching labor, by automation, and by moving to new areas of weaker, cheaper and often non-unionized labor. Another feature has been the merging of businesses, spurred on by the increased economic strength of finance capital (Green, 1988). Goe and Kenney (1991) have argued that the crisis in US agriculture has occurred later than that within the industrial sector. Nevertheless, because of agriculture's quite intimate connection with manufacturing industry and finance capital, it is experiencing the same sorts of restructuring pressures. Agriculture is under pressure to develop new and more productive, efficient and flexible food and fiber production and delivery systems. Information technologies and the application of agro-biotechnologies are viewed as the sorts of responses which will provide capital with opportunities for production flexibility and product diversity. It is perceived that, with the mass markets of the older Fordist regime giving way to fragmented markets based on increasingly differentiated patterns of consumption, the area of greatest profit lies in 'niche' marketing.

The transition from Fordism to post-Fordism is not simply one influencing economic organization. Buttel (1992) following Roobeek (1987), has insisted that economic change has been accompanied by a movement from social democratic to neo-conservative forms of social organization. Trade unions and their influence in industrial relations and national politics have declined, the welfare state and the social wage are being selectively rolled back, economic inequality is increasing, political parties

have declined relative to special interest groups and social movements, corporations and market transactions have become increasingly transnational in scope (and thus less amenable to nationally ordered regulation). As part of this change, political cultures have shifted from an emphasis on mitigating the impacts of private accumulation to that of ensuring the sanctity of entrepreneurship (Buttel, 1992).

For Buttel, the movement from the social democratic (Fordist) regime to the emerging neo-conservative (post-Fordist) regime is represented by the development of a non interventionist state whose policies support a growing corporate elite and an increasingly differentiated working/middle class comprising poorly paid service sector workers, informal sector workers and an emerging urban and rural underclass (those groups who were once protected by the welfare state) (Buttel, 1992).

In summary, there are three likely outcomes of this transition that are important for agriculture. First, the reduced significance of 'mass' markets will greatly disadvantage those nations (such as Australia) producing bulk undifferentiated commodities, particularly in an era of global overproduction. Second, a reliance on new technologies is viewed as necessary in any advanced system of agricultural production. The extension of computing and biotechnologies are perceived as essential to increased production despite their potential to further polarize agriculture (see Goodman, Sorj and Wilkinson, 1987). Third, the demise of the welfare state is likely to translate into even further reductions in support for rural social infrastructure, with impacts felt by farmers and other rural dwellers.

The Globalization of Food Production

With the increasing internationalization of industrial and finance capital, agriculture has become quite vulnerable to decisions made in distant locations. Finance capital has gained an ability to by-pass many of the strictures previously set in place by once protectionist nation states. Two examples of restructuring are, first in the food processing sector (characterized in the 1980s and 1990s by asset stripping, international linkages and buy outs) (see Marsden and Murdoch, 1990) and second, in farming (with credit being provided to transform production relations and to allow the purchase of new technologies).

According to Friedmann and McMichael (1989) and Friedmann (1991), the integration of world capital has blurred any previous distinction between 'agriculture' and 'industry' and that to grasp the changes occurring in farming and in farm-dominated rural regions it is necessary to conceive of an 'agrifood sector' run by transnational corporations which links various elements of rural production to manufacturing and service industries. The agrifood sector has become an intermediary between agricultural producers and food consumers:

> Instead of crops destined for the kitchen pot, agriculture increasingly supplies raw materials to the food processing industry for the production of durable goods. These raw materials become subject to global sourcing and to technically developed substitutions ... Agrifood industries have grown up around two elements in the postwar diet of advanced capitalism: (1) manufactured foods--composed of several agricultural (and/or chemical) raw materials, notably sugar and oils; and (2) livestock products, especially intensively produced poultry and cattle (Friedmann, 1991: 66-67).

The development of a mass diet via industrial food production processes has been one of the outcomes of the development of a global agrifood sector, a sector whose profits were able to grow enormously through their ability to convince consumers that the purchase of takeaway, prepackaged and convenience foods

were a necessary and desirable part of modern living.

With the durable food industry capable of disguising the ingredients of a final product--it was a short step to replacing the costly or unreliably supplied or inferior natural substances with what Friedmann (1991) has labeled 'generic ingredients':

> What is wanted is not sugar, but sweeteners; not flour or cornstarch, but thickeners; not palm oil or butter, but fats; not beef or cod, but proteins. Interchangeable inputs, natural or chemically synthesized, augment control and reduce costs better than older mercantile strategies of diversifying sources of supply of specific crops (Friedmann, 1991:74).

This so-called 'substitutionism' (Goodman et al., 1987) allows a higher degree of control by corporate capital over agriculture because it can, through increased interchangeability of components, by-pass entire products and regions in 'sourcing' its industrial requirements.

The production of beef altered from a largely extensive system to an intensive one. The integration became complete with intensive livestock production being linked with the grain (feedstuff) sector particularly in the US. Since the production of 'global food' is no longer the province of national commodity groups, producers find economic advantage in linking with transnational capital (under its terms) to take full advantage of world demand for agricultural products. Under pressures for product standardization, mixed agricultural production may give way to specialization and monoculture agriculture with negative environmental implications for those peripheral countries into which this form of agricultural production penetrates. According to Friedmann, who evokes the fordist/post-fordist dichotomy as a means of understanding changing patterns of production and consumption, the durable food and livestock/feed complexes have reached their limit. Along with world overproduction, farm crises and the spate of rationalizations and bankruptcies in the corporate food sector, there is an underlying trend within the advanced nations to class-based food differentiation with poorer groups required to purchase increasingly standardized foods, and with privileged consumers enjoying a more varied healthier diet.

There are two important elements in this analysis. First, it is anticipated that the earlier comparative advantage enjoyed by so-called settler states such as Australia has virtually disappeared with the emergence of a global food system after the Second World War. It is doubtful that these countries can exert much control in agricultural development either in terms of choice of commodity or in terms of agricultural production strategies utilized. If TNCs decide that Australia, or other semi-peripheral and peripheral nations, will provide bulk undifferentiated products for mass markets, possibilities in those nations for value adding and for capturing higher priced niche markets will be greatly limited. Producers in these countries will be required to conform to demands of companies which want the separation of livestock and crop growing (the continued movement towards specialized systems of production) and which are unconcerned about the environmental or social impacts of these developments. At the farm level, there are growing pressures for farmers to conform to the upstream and downstream components of transnational capital by utilizing modern inputs and producing corporate-required outputs. By becoming increasingly subordinated by finance capital, producers will have little room to alter production regimes.

Second, given the continuation of the influence of corporations in supplying existing and new (especially Asian) markets with durable foods, it is likely that there will be increasing pressures on the environment. Eco-

logical problems will invariably increase with any intensification of existing practices (see Lawrence and Vanclay, in press). While there may be consumer demand for 'cleaner' (or 'greener') agricultural practices, many of these practices will translate into higher costs of production and so place greater pressure on farmers to increase output as a means of sustaining farm income. This, itself, may cause accelerated environmental degradation, but will also lead to the hastened exit from agriculture of now marginal farmers unable to bear any additional input costs. In conditions where nation states are reluctant to impose tighter regulations for fear of capital flight (as in the semi-peripheral and peripheral nations), it also may result in continued unacceptable levels of abuse of natural resources.

In the period before World War Two and up to the mid 1970s the nation state largely organized agriculture and provided social stability via policies which encouraged the development of mass consumption and high wages. Since then, transnational capital has relieved the state of its regulating role and has organized new production arrangements. For Friedmann and McMichael (1989) two possibilities for future development present themselves: the growth of global institutions (a World Food Board?) aimed at stabling and regulating capital accumulation, or the reassertion of the 'local' and 'regional' aimed at counteracting the power of the transnationals. A globally coordinated system with localized (or regional) control over the use of resources is Friedmann and McMichael's best guess. How producers and consumers in countries like Australia will act--whether as 'victims' of transnational forces or as active players is the reorganization of local patterns of production based on ecological and other concerns--is at this time yet to be determined.

Contract Farming

In contrast to the conventional industrial model of vertical integration, agribusiness tends not to engage directly in on-farm production. Instead, the major means of control by agribusiness is contract farming, 'a system in which companies involved wholly or partly in the processing, marketing or retailing of agricultural goods enter into contractual arrangements with farmers for the supply of a particular commodity' (Burch, Rickson and Annels, 1992: 260).

Contract farming results in a transfer of responsibility for many production and environmental management decisions from the farmers to the corporation--with a consequent loss of autonomy for farmers. Corporate concern about profit and cash flow may result in lower investment in conservation activities than would be undertaken by farmers on their own. Furthermore, where environmental degradation occurs, corporations can, because of international sourcing, simply move to another location for their produce requirements. This creates a situation in which corporations need not be particularly concerned about environmental quality, and can leave adoption of environmental management strategies to farmers to make spurred on by competition between regions for the supply of particular commodities to that corporation. At the same time, this competition creates a situation in which farmers cannot invest in environmental management strategies because of declining terms of trade and reduced flexibility in farming operations.

Individually, farmers engaged in the production of produce for a corporation have little power in the relationship. Corporations maintain control over farmers by threatening not to accept their crop, a situation which would be disastrous for farmers because of the lack of alternative outlets for produce in a particular region. Consequently, growers are vulnerable

to the whims of the corporation. Growers are forced by the logic of the contract system to cultivate intensively and, in order to ensure the quality of their produce to the satisfaction of the canning company, to use excessive amounts of agrochemicals (see Burch et al., 1992). The system also reduces the flexibility of the farmer in that the contract may specify certain practices that the farmer must adhere to, such as the use of specific chemicals. It also limits the choice of crop rotations and alternative commodities available to the farmer because of the monoculture that develops in locations where contracting occurs. Farmers become dependent on the infrastructure provided by the agribusiness corporation, and in semi-peripheral nations like Australia, with a small, geographically dispersed population, the corporations are able to monopolize the processing and handling of produce very easily.

Burch et al. (1992) argue that the complex nature of the agribusiness system is such that the activities involved in contact farming are not satisfactorily coordinated and this has implications not only for the farmer in that there may be contradictory advice, but also for the consumer in that there may be, for example, inadvertent but structurally built-in breaches of regulations relating to the withholding periods for certain agrochemicals. A farmer may be directed by the field officer to spray a crop with a certain chemical, only to be told by the production control manager to harvest the crop. In some case farmers may be given only 48 hours notice to harvest, whereas some agrochemicals have withholding periods of up to 14 days (Burch et al., 1992).

Agro-Biotechnologies

Biotechnology is being heralded in Australia and elsewhere (see Lowe, 1992) as the most appropriate mechanism for both increasing agricultural productivity and overcoming many of the environmental problems associated with modern agriculture (such as the heavy use of pesticides and herbicides). Some consider biotechnologies will create the best opportunities for a sustainable future (Department of Primary Industries and Energy, 1989; Begg and Peacock, 1990; Bureau of Rural Resources, 1991).

Biotechnologies are expected to allow producers to reduce their levels of inputs (and hence costs) while achieving higher levels of output. Embryo technology, for example, may provide opportunities for transferring superior genes to existing cattle herds and sheep flocks at a lower per unit cost than normal breeding techniques. Vaccines created through biotechnology are considered to be superior to those obtained in conventional ways. Bovine somatotropin--a natural protein hormone produced through recombinant DNA technology--will allow more milk to be produced by dairy cattle from the same level of feed thereby increasing profits by lowering milk production costs (see Begg and Peacock, 1990; Baumgardt and Martin, 1991). Experiments in Australian laboratories are designed to confer pest resistance on plants and so reduce or eliminate the need for chemical applications on Australian croplands. The creation of insect-resistant plant species may not only mean that fewer dangerous chemicals will be used in farming but also that the costs to farmers will be reduced. Biotechnologists are also working on ways to 'mop up' chemical pollution and to convert what are now waste materials from food manufacturing into new products. Proponents estimate that biotechnologies may reduce the use of natural resources by between 40 and 60 percent allowing farmers to move rapidly towards sustainable production (Begg and Peacock, 1990). Threats to the further degradation of lands are expected to be averted through new genetic manipulations and applications which reduce input use and allow out-

put increases without soil loss (Bureau of Rural Resources, 1991).

Since biotechnologies are 'enabling technologies', they are likely to have different outcomes according to the purpose of their application. For Redclift (1990) biotechnology will fulfill its promise if it can encourage the development of a low-input, high-tech system of sustainable agriculture in which there are reduced applications of proprietary inputs. The hope then, is that in line with growing public concerns for the environment, scientists will develop plants and animals with pest and disease resistance, salt tolerance and productivity-enhancing qualities which will overcome many of the problems associated with current agricultural practices (see Lowe et al., 1990; Baumgardt and Martin, 1991). However, evidence from both Australia (Hindmarsh, 1992) and abroad (Lacy et al., 1988; Busch et al., 1991; Goodman and Redclift, 1991) indicates that the biotechnological promise is, in the context of existing social arrangements, unlikely to be fully realized.

There are a number of concerns. First, environmentalists point out that if corporate capital is involved in the production and distribution of biotechnologies, the profit motive will distort both the basis of experimentation and the likelihood of benefits being distributed evenly amongst producers. Thus, the production of herbicide-tolerant plant species is not designed to free agriculture from chemicals but to have farmers purchase a proprietary package of herbicide and herbicide-tolerant seeds (Kloppenburg, 1988; Busch et al., 1991) something which will further the dependence of farmers on the agrochemical industry and increase input costs for producers. Furthermore, with herbicide use continuing at high levels the possibility of chemical resistance amongst weeds is increased and there is a greater likelihood of ground water pollution (Otero, 1991).

Secondly, there is also no proof that genetically modified organisms will be environmentally benign. They may proliferate to occupy 'niches' in ecosystems thus displacing other organisms or produce substances toxic to other organisms. Here, the use of supposedly environmentally friendly genetically modified organisms may result in environmental decimation. Ironically, the new products may be even more dangerous than the dangerous chemicals they have been designed to replace (see Busch et al., 1991).

Thirdly, if costs of biotechnological inputs are reasonably high--which they are expected to be given that they will be corporate, rather than state-released, products--the adoption of the new biotechnologies will be limited to the well-financed and usually larger farmers. That is, many of the possible environmental benefits (of reduced chemical applications) would not, in any case, be available to often-struggling middle 'family' farmers. The very people who might have been most advantaged will inevitably fall behind, concentrating food production among those in the wealthier sector of farming. In the US employment in farming is declining faster than virtually all other occupations. With existing trends heightened by biotechnology there will be fewer farmers (Lacy et al., 1991). There is evidence that, in terms of environmental management, corporate-linked agriculture is no better, and is perhaps worse, than family-farm agriculture (see Lawrence, 1987; Strange, 1988; Lawrence and Vanclay, 1992, in press).

Byman (1990) considers it to be somewhat worrying that new technologies are being advanced as the answer to the problems of environmental pollution and oversupplied markets, when the past applications of technologies have helped to cause those problems in the first place. Redclift (1987) too, has argued that the future of the advanced societies--such as the US, UK and Australia--is premised upon

the transformation of the environment, yet the transformation of the natural environment is occurring in a manner which reduces long-term productivity. The 'environmental contradiction' is viewed as the central contradiction of advanced capitalism (Redclift, 1987; and see O'Connor, 1990).

The global economy is dominated by transnational capital and it is the large, transnational agribusiness firms which are controlling biotechnological development in agriculture (Goodman et al., 1987; Kloppenburg, 1988; Otero, 1991). Farming will exist, in its present form, only for as long as it can conform to the profit-making requirements of firms supplying agricultural inputs and of firms involved in the food processing industry--those using either the direct products from farming or farming products converted for use for industrially produced 'biomass'.

Value Adding Activities

Another strategy being promoted in Australia is to 'value add' to products before they leave Australia's shores. At present the $15 billion of agricultural goods Australia exports is currently converted into $80 billion abroad. It is argued that if this $15 billion worth of agricultural products which Australia exports in largely unprocessed form were to be further processed in Australia, there would be higher levels of employment, higher levels of income, and enhanced foreign currency earnings (see Bureau of Rural Resources, 1991).

According to the Department of Primary Industries and Energy (1989:7):

> Value adding is the essence of economic growth. Value adding is the means by which individuals and businesses meet their objectives to prosper and grow ... if a country wants to trade for the purposes of economic growth without subsidies, it will only do so via industries, businesses and individuals who are able to compete successfully ... Hence, value adding and the competitiveness of agribusiness are inexorably linked.

The opportunities seen to be available to Australian producers currently producing largely undifferentiated food and fiber for world markets is to link with agribusiness in a manner beneficial to both parties (see National Farmers' Federation, 1993). For agribusiness, the markets abroad are well known and already penetrated by branch firms, providing an easy entree for those producers who seek agribusiness affiliation. For farmers, the sale of specific product lines which can be readily distinguished from those of competing producers will allow consumer brand identification and it is presumed that this will result in increased profits. With extra income, once-struggling farmers will be able to overcome debt problems and begin to undertake much needed environmental repair work. In this scenario, the further integration of family-farm agriculture and international agribusiness will be a cornerstone to both improved environmental sustainability and the continuation of high export earnings--not from any increased volume of exports, but the sale of higher value goods (National Farmers' Federation, 1993).

The positive environmental flow-on effects suggested above are part of a healthy and prosperous agricultural sector. Would family-farm agriculture be 'reinvigorated' by agribusiness? Agribusiness firms are renowned for their ability to organize their production and distribution activities in the input-supply and output-processing sectors without, as it were, getting their hands dirty on the farm (see Lawrence, 1987; Mooney, 1988; Burch et al., 1992). Market strength and management strategies enable agribusiness to leave the production risks with the farmer, while purchasing raw materials from the farmer as cheaply as possible. It is not on the farm where value is likely to be added but off the farm in food

processing factories. The individual farmer has little opportunity for value adding and product differentiation on the farm and is therefore unlikely to receive profits received by those involved in the processing industries. The question that remains is--can Australia benefit from value adding activities in circumstances where transnational agribusiness assists in the transformation of family-farming activities?

The answer would seem to be no. Foreign interests have determined that Australia is not the most appropriate location for value adding. For example, in 1988 five of Australia's top agricultural exporters were Japanese trading houses which sent abroad, in one year, approximately $7 billion of unprocessed food and fiber (*Financial Review*, 15 March 1988).

Attempts by successive Australian governments to diversify the economy and to have foreign capital invest in food, fiber (and wider) manufacturing appear to have failed. In 1972, so-called 'elaborately transformed manufactures' (embodying high-tech processing and knowledge-intensive applications) comprised 13 percent of Australia's exports. However, this had fallen to 9 percent by 1986 (Fagan and Bryan, 1991:15) and to 8 percent by 1989 (Kulkarni, 1991). For the 1980s, Australia imported value added imports at a rate faster than both domestic growth in GDP and the export earnings of food and materials (Jones, 1989). By the 1990s, Australia had reverted to its 1930s economic base selling 'simply transformed manufactures' (unprocessed or semi-processed raw materials) in exchange for manufactured goods.

This has placed Australia in a difficult economic position. Farming is, at best, a slow growing sector which is susceptible to world oversupply and deteriorating terms of trade. More importantly, Dunkley and Kulkarni (1990:20) suggest:

> Trade in [simply transformed manufactures] is unlikely to revive in the near future because of technological change raising global productivity, agricultural subsidies in major countries, a trend to self-sufficiency in developing countries, the emergence of new primary suppliers and possible reduction in demand for [some rural] products for ecological reasons.

Australia's manufacturing industry primarily constitutes branch plants of foreign transnational companies. It is being progressively locked out of Asia-Pacific markets because of cheaper production costs overseas, particularly in South-East Asia. There is no reason to believe that local or foreign agribusiness firms will discover advantages in food and fiber processing in Australia that they have been unable to obtain elsewhere. Labor in Asian countries is cheaper than in Australia so it is likely that raw materials will continue to be sent abroad in unprocessed form. This has been begrudgingly admitted by the Federal Government and has been more-or-less accepted by the National Farmers' Federation (1993). According to the Department of Primary Industries and Energy (1989:15):

In considering the question of adding value to Australian agricultural products, it is reasonable to argue that the value adding activity will often take place outside Australia (by companies that may or may not be Australian owned), and that this activity will be initiated by companies positioned near the retail end of the channel rather than near the raw material end.

Without tariff protection which has provided support for Australia's 'infant industries', there are few incentives for firms to move beyond simple semi-processing activities. Significantly, the processed foods area--that described as providing the best opportunities for value adding (Bureau of Rural Resources, 1991)--now forms a declining proportion of total food exports (Wettenhall, 1991). Bulk agri-

cultural commodities constitute approximately 70 percent of Australia's exports (*Australian Farm Journal*, June 1991) and are expected to continue to do so (Department of Primary Industries and Energy, 1989).

Beef Feedlotting

Feedlot beef enterprises provide another example of change within rural Australia. Feedlot/abattoir complexes are appearing along the inland river systems to take advantage of the reliable supply of water, grain and (unfattened) store cattle. Investment from Japan, Korea, Taiwan and Singapore has been used to develop vertically integrated complexes with direct links to Asian markets. The recent developments initiated by firms such as TKK, Mitsubishi, Marubini, Nippon Meats and Itoham have included feedlots of up to 60,000 head. In the Riverina region, an area traditionally known for its broadacre cropping and extensive grazing, feedlots with the capacity to house 130,000 head and to turn off 250,000 animals each year, have commenced operation (*Land*, 31 January 1991).

With liberalization of the Japanese beef market, beef exports are expected to triple by 1995 (*Sydney Morning Herald*, 17 July 1991). Australian farmers will be contracted to supply grain and unfattened animals to the new complexes. Like feedlotting, contract agriculture is relatively new to Australia (*Australian Farm Journal*, May 1991:85) and farmers who have lost the protection of marketing boards and/or other support are expected eagerly to seek integration with the feedlots. According to the Executive Director of the Lotfeeders' Association: 'feedlots are going to change the face of the Riverina region, creating a new economy based on supplying grain and cattle to the feedlot industry' (*Land*, 17 January 1991:10).

Labor relations in the agricultural sector are also being targeted for change. Workers in the feedlot/abattoir complexes are expected to accept 'more flexible and internationally competitive labor arrangements and awards' (Department of Primary Industries and Energy, 1989:67). The first non-union based contract working team has already been employed in an Australian slaughter plant (see *Stock and Land*, 5 September 1991) with the support of farmers and the National Farmers' Federation. This is in contrast to the high levels of unionization normally experienced in Australian workplaces. Furthermore, rural workers, in current times of financial distress for Australian agriculture, are being required to place rural community interests ahead of union loyalty (Australian Farm Journal, May 1991). There is large-scale retrenchment from rural based industry with migration of non-locals back to urban areas. The remaining workers tend to be farmers working off the farm, or those who have a farming background. They often do not share traditional blue-collar union ideology, avoid union membership and are therefore vulnerable to structural adjustment in the industrial workplace.

Feedlots are unlikely to be environmentally or socially beneficial to Australian farmers (Lawrence and Vanclay, in press). While there is some debate about whether lot-fed beef is fordist or post-fordist, it undoubtedly does represent some form of value adding. However, given the extent of vertical integration with the feedlot industry, the majority of the profits from feedlot enterprises are expected to flow not to Australian growers but to overseas-based companies. Australian farmers supplying source stock and grain feed on contract are likely to have little flexibility or autonomy, and given the relative abundance of these inputs little power to set the price. Australian farmers are likely to find that they are suffering twice, both in terms of decreasing prices for their outputs and increasing input costs, and also in terms of declining autonomy.

Feedlots also have an environmental cost. One estimate is that effluent from a feedlot of 40,000 head (the size of those proposed) is equivalent to that produced by a city of 500,000 people (*Land*, 15 January 1989). Cities of this size require waste treatment works in the order of US$80 million. Currently, the method of treatment of feedlot effluent in Australia is to contain the liquid in holding ponds and to sun-dry manure for sale to local farmers (*Land*, 17 January 1991). However, the soils in many parts of Australia where the feedlots are proposed are rain saturated for about a quarter of the year and it is likely that run-off will eventually reach the already-polluted inland river systems (see *Narrandera Argus*, 21 August 1990). One state's Pollution Control Commission's negative assessment of feedlot beef complexes along the inland waterways was ignored by that State Government which gave approval for their development (*Murrumbidgee Irrigator*, 22 February 1991). While problems of overgrazing and overcropping associated with conventional agriculture have already caused havoc, the removal of pastures and the replacement with grain to supply feedlots may intensify current environmental problems.

Economic and Social Impacts of Rural Restructuring

There have been different outcomes in different countries as the new forces of economic change have begun to impact upon regions within nation states. In countries of the European Economic Community there has been a move from production strategies which have tended to endorse continued expansion of output to those which preserve rural communities and protect the environment (Commins, 1990; Lowe et al., 1990; Berlan-Darque and Klaora, 1992; Glasbergen, 1992; Lowe, 1992). With agriculture gradually losing its status as the major form of enterprise in rural regions, policy is coming to reflect the variety of concerns of rural and urban dwellers. In the US, where an increased diversity of economic activities (particularly the growth of decentralized service and light manufacturing industry) has helped to reduce rural community dependence on agriculture (see Swanson, 1988), new employment opportunities have arisen. There is evidence that changes are not necessarily beneficial for all regions or for all people within all regions experiencing change: labor market segmentation has been one outcome (Summers, Horton and Gringeri, 1990).

Australian governments have responded to global restructuring in a number of ways. At the macro level they have been prepared to integrate their economies into international circuits of capital by deregulating banking, removing regulations on capital flow, orchestrating high interest rate policies as a means of limiting domestic demand and of attracting investment dollars, and seeking to reduce real wage levels to achieve labor competitiveness.

The changes have included measures to provide greater market determination to capital allocation, reducing the costs of and improving flexibility in relation to resource allocation, and encouraging greater economic competition (see Stilwell, 1993).

In Australia, the following measures have been applied as a means of integrating the Australian economy into that of the Asia-Pacific Basin:

- reduction of import tariff levels,
- freeing of interest rates,
- floating of the exchange rate and lifting of foreign exchange controls,
- deregulation of the finance and banking industries,
- conversion of traditional government departments into new state-owned enterprises,
- privatization of state-owned enterprises,

- deregulation and privatization of state monopoly control in primary industries,
- deregulation of the airline industry,
- forced competition in the telecommunications industry,
- reductions in public-sector and welfare spending,
- proposals for a value-added tax (Goods and Services Tax).

In relation to agriculture, the vehicle for such integration is the agribusiness corporation. Statutory marketing authorities--once the bastion of family-farm commodity marketing--are viewed as standing in the way of the private corporations (National Farmers' Federation, 1993). It is the latter, which, through strategic links and size advantages, will be capable of providing value-adding to food and fiber production and will help to reorganize farming to reduce inefficiencies (Department of Primary Industries and Energy, 1989).

The agribusiness model--requiring high inputs to achieve high outputs--is likely to alter the pattern of agricultural production in Australia with the effects being increased output, greater pressure on the environment and an increased need for adjustment of those farmers unable to compete under the new rules (Lawrence and Vanclay, 1992; Lawrence and Vanclay, in press). Farmer stress--another obvious consequence of the combination of forces 'rationalizing' agriculture--is one of the least well understood dimensions of the economic restructuring of farming.

It would appear that the removal of the protective mantle of policies which supported and reproduced (albeit, allowing for appropriate structural adjustment of those deemed to be least efficient) family-farm based agriculture will expose producers to further economic stress. For example, any move to post-fordist agriculture will require producers to move from bulk commodity to 'niche' market production. This will require farmers to alter existing production regimes and grow new crops or animals using a variety of new inputs (including advanced information technologies). If, as might be expected, this results in the polarization of agriculture--with the more capital-intensive agribusiness-lined farmers increasing their share of commodity production and sector income--what will be the fate of those unable to compete?

Some of the likely consequences for this group may be:

- reducing farm expenditure to 'match' reduced farm income levels,
- further borrowing to allow expansion and/or change,
- 'pluriactivity' to provide new income sources as a means of supporting a farm-based lifestyle,
- short (and perhaps medium to long) term exploitation of the resource base of the farm as an attempt to improve farm-based income levels,
- selling the farm.

In the first case, the reduction in household expenditure has important social implications. With little money available for entertainment and other social activities, supportive networks may begin to deteriorate with a consequent loss of vitality in the farming district (Lawrence and Williams, 1990; Stone, 1992). With male farmers often being reluctant to seek assistance from counselors (Fairweather, 1989) there is likely to be a hidden problem which might, at times, manifest itself in stress-related behavior including alcoholism, increased domestic violence and suicide. So-called belt-tightening (see Lawrence, 1987) was once an acceptable short-term response to price collapse. The rules of rural production have changed with the winding back of state supports for agriculture. Farmers who might once have adopted belt-tightening as a short-term response (and might have been victims of periodic poverty) are likely to be trapped by

continued low prices and may become part of a new rural poor--unable to sell their farm and unable to trade their way out. While financial counselors are likely to interpret this as an 'equity crisis', it is in reality a structural crisis affecting those producing traditional farm commodities in a world where such bulk products have lost their competitive edge. The future of the traditional family-farm producer in a post-fordist world system is one which needs greater attention.

Some producers will borrow to expand. Again, however, it is not likely to be in the expansion of output of traditional products where major economic benefits are likely to be achieved. While there will be a demand for grain and unfattened animals for the burgeoning feedlot beef industry, this will be with its own limitations (Lawrence and Vanclay, in press). Other farmers may be able to link with agribusiness (and, perhaps, with local grower-owned marketing bodies) to produce for niche markets. Such 'opportunities' will be limited in a geographical sense and by the management skills of individual farmers. It is the traditional family farmer, producing bulk commodities, who will be isolated from recent developments, and who will be likely to find product diversification and farm expansion a major problem. Obtaining the capital to do either of these things will be difficult unless credit suppliers can be convinced of the long term suitability of such developments. And, where credit is obtained, the need for the farmer to 'perform' for the bank or credit agency is likely to intensify both social and psychological pressures on the farmer.

Pluriactivity is an important option for the smaller farmer within a post-fordist era, being viewed as a survival strategy and as a means of integrating farm-based labor into new areas of capital accumulation (Le Heron, 1991). It is becoming a preferred option for those farmers (and family members) seeking alternative occupational opportunities and lifestyle options. With between one third and one half of farm households in Australia being pluriactive (Lawrence, 1987), it is obvious that job opportunities within regional economies become crucial to the general well-being of a large number of farmers.

There is evidence that the growth of tourism may provide the sorts of jobs which farm women (in particular) can successfully combine with farm work (see Share, Campbell and Lawrence, 1991). Niche opportunities provided by ski field development or the farm holiday trade are providing flexibility to farming and so allowing producers to remain in agriculture. However, not all regional areas are likely to experience new injections of capital (Stilwell, 1992). Much of the economic activity associated with tourism in Australia, for example, is coastal while most of the farmers suffering economic problems are located in inland regions. Furthermore, opportunities for achieving work within country towns have declined because of the removal of government-based services (as part of rationalization) (Lawrence and Williams, 1990; Stone, 1992). What remains to be done is to examine which, if any, opportunities are being provided to those farmers and farm members who are under stress as a result of global restructuring. Pluriactivity may be an excellent farm-based option to structural adjustment, but opportunities are likely to remain limited so long as regional economies are not provided with stimuli to attract industry.

Just as there is evidence of overwhelming farmer commitment to the local town and its future (Kidman, 1991), there is also evidence that the deepening recession is responsible for increasing industry closures and economic distress in rural economics. In this sense the wishes of farm family members to take off-farm work are undermined by economic realities of lack of investment dollars. Of course,

when development does occur it is likely that it will be on terms of finance capital rather than of local need (see Share et al., 1991).

One outcome of rural restructuring is further pressure on the environment as farmers seek to counteract falling commodity prices by reducing inputs, working the land harder, and reducing expenditure on conservation works. While this may allow farmers to reduce their personal stress over farm income, many are knowingly running down farm resources (usually perceived as a short term option) to remain in farming (Lawrence, Share and Campbell, 1992).

Much now needs to be understood about resource-use behavior in times of economic stress. What can be stated is that the Australian agricultural environment is under severe pressure as farms seek to employ past (and new) techniques aimed at boosting production. Financial constraints prevent farmers from spending money on needed works to redress soil erosion, while overstocking and overcropping are a consequence of the need to sustain income levels--particularly as a loan repayment strategy (Lawrence and Vanclay, 1992).

The final option for producers is to leave agriculture. While structural adjustment has been a general regime for nonviable farmers and has proceeded reasonably smoothly (in Australia) from the 1960s, the stress farmers face leading up to and during the transition out of farming has yet to be fully studied. There are some estimates that the number of farms in Australia will have dropped from 174,000 in the early 1980s to about 70,000 early next century (Lawrence, 1987). If this occurs there is likely to be quite significant social disruption in rural areas. Yet, as stated earlier, in an era distinguished by reduced levels of government involvement in the rural economy, there is likely to be little support offered to those leaving agriculture. While, in Australia, there has been a quite significant increase in the number of rural counselors, it appears that many assume the role of financial counselors. Many of the growing social problems remain hidden from view and there is a certain 'denial' of the personal and family stresses which are occurring as a direct result of the non-viability of family-farm agriculture (see Bryant, 1991,1992).

Regional Change

It has been argued by European and some US writers that a focus upon global networks and upon the structural aspects of agricultural production has tended to reduce the importance of 'the rural'. Some regions--for reasons of natural resource endowments, local policies, labor availability and skill or market proximity--have managed to attract capital and to develop while others--particularly those where agriculture is the exclusive generator of wealth--have faced pressures for contraction. It is possible to point to regions within Bavaria, Colorado, Northeast England, Ireland and Tuscany as new productive areas which have attracted population and capital, as well as to those which have become economic backwaters (Marsden, Lowe and Whatmore, 1990). There is argument that production flexibility--something accompanying the move to niche markets--will advantage rural regions (Urry, 1984). This is because, through the use of new technologies and production regimes, manufacturing and service industries do not have to be large units. And the smaller the unit the more likely it is to be adaptable. In Urry's words, capital is becoming 'indifferent' to where it is located; something which provides opportunities for rural regions to take advantage of economic developments formerly--and usually exclusively--obtained by cities.

As rural areas become sites of consumption (in regard to leisure, tourism and recreation),

rather than, as in the past, sites of production (i.e. agriculture), it is likely that new opportunities for economic development will arise. The rural will be a site for the social production of meanings (Marsden et al., 1990) where city-based individuals come to appreciate, as a cultural asset, the 'space' provided by the countryside. While there will be varied and competing meanings, this is indicative of the potential politicization of the rural: An obvious example is the degree to which urban dwellers demand (and obtain) conservation works and 'clean food' rather than leaving agricultural production and resource use in the hands of farmers and agribusiness interests. If rural society was once a distinctive entity seen as different from (that is, usually inferior to) that of the city, in the post war period the spatial division between rural and urban has become blurred (Mormont, 1990). While 'space' will continue to provide important insights into the development and reproduction of social relations (when 'localism' may become a key term in understanding local responses to global changes), the 'rural' will not be a self-evident category but a term used by different groups in different combinations to attract different forms of economic development. For Mormont, farmers may use 'natural food' labels to obtain 'value-added' benefits, environmentalists might seek to shift agricultural policy to protect endangered species, tourist operators might appeal to visitors to experience the 'real' countryside, and so forth. The term 'rural' will slide between those wishing to achieve some economic, social or political outcome. It may become very trendy to live in a 'rural' village or to own a small 'property' in the bush--something now possible due to communications technology and guided by lifestyle preference. Furthermore, space becomes attractive to those whose worklife occurs in urban settings (Mormont, 1990). New uses for rural space by new groups of users will ensure that conflicts arise. In some instances, farmers may find they have new allies in their attempts to remain in farming. Altered affiliations are possible. Their effect might be to redefine farming as 'land management' or to promote the countryside as the logical location for new industries. Whether the rural is viewed as something to be exploited, or as something to be preserved and nurtured, will be based largely on the collective assets of those making decisions about rural resource use. There is a specific opportunity for local coalitions of farmers, conservationists, professionals and so forth to oppose particular global trends and to foster others. According to Lowe, Marsden and Munton (1990:6):

> The balance and combinations of use and exchange values on land, homes and recreational space in the countryside is in a state of continual flux as different fractions of capital seek to exploit rural space, open up new markets and thereby produce new systems of exchange. [State policies of] deregulation [and]... privatization ... often lead to acute conflicts between, for instance, the protection of publicly-regulated use values and the attempted imposition of productivity-oriented exchange values. For many groups living in urban and rural areas, parts of the countryside thus represent pockets of space for the public consumption of use values in a world dominated by exchange and commodity values; and for this reason the retention of such use values may be vigorously defended.

The implications of these changes for rural regions of Australia are many. First, 'rural' will be a category employed by groups other than farmers and with meanings broader than agriculture. Farmers are likely to find themselves defending their version of what constitutes 'rural' and what are legitimate and desirable activities within that space against those with new definitions and with new priorities. Conflicts may arise which will not necessarily enforce current patterns of land use and production.

Second, with the possible growth of more flexible production not tied to coastal or other areas of high population, rural regions may attract new groups of people whose training and forms of employment will stimulate economic growth. They may help to 'shape' social space according to their (usually gentrified) views of what constitutes modern life and actively defend their definitions against others. They may represent at the local level the articulate forces which can oppose inappropriate developments which seek to exploit unskilled labor or cause environmental havoc. That is, they may encourage certain forms of development while opposing others. This is certainly evident in the growth of the alternative lifestyle or multiple occupancy movement in Australia (Munro-Clarke, 1986; Metcalf and Vanclay, 1987).

Third, Massey (1984) argues that capital movement shapes regions by utilizing and manipulating spatial differences to capture higher levels of profit. Changing circumstances in rural areas due to decreased farm viability result in the establishment of a supply of labor in non-metropolitan regions, and the increased potential for the exploitation of that labor by what might, in other language, be construed as 'growth' and 'development'. According to Massey, this results in the 'spatial division of labor'.

Although the changing nature of regions will have definite impacts on Australian rural society, there are many uncertainties as to the full extent of these impacts. It is not altogether certain that the changing nature of regions will be as dramatic in Australia, with its vast land mass and relatively small population, as it will be in more densely populated nations of Europe and North America. Nevertheless, areas surrounding major centers of population and regions noted for their natural beauty already experience pressure to conform to urban demands, and rural communities in those regions have responded to the potential created by that demand in the form of altered forms of production. It is unlikely, however, that the vast bulk of Australian agricultural areas--much of which are not close to centers of population and not particularly aesthetically or otherwise attractive in terms of other demands that may be placed on these regions--will be significantly affected by the changing concept of region.

There are also other concerns about the validity of the claims about the impact of the changing role of regions. If new industries do emerge, would farmers be capable of combining their usually less-viable on-farm activities with new work opportunities? Marginal farmers find themselves in a situation of 'agricultural involution' (Geertz, 1963), in which they cannot afford the capital outlay to invest in alternative forms of production, and where they have minimized their cash outlays by retrenching on-farm labor and adopting low-input agricultural systems which have low returns. This survival strategy locks them into a situation which they cannot change and which ultimately leads to decreasing equity. By reducing farm labor, the workload of the owner-operators increases to fill all their available time. Off-farm work by the farmer inevitably means sacrificing production on the farm. Marginal farmers are also unlikely to have the skills that provide them with the potential to find off-farm work, or to adapt their farm to sites of pluriactivity. Changes in agricultural production and non-agricultural on-farm production are more likely to be undertakeu by farmers in the higher socio-economic categories.

The final concern is that in a 'disorganized' de-regulated post-fordist economic system, it may be difficult to establish what are realistic and beneficial local opportunities and what are attempts by the metropole, driven by capitalist pressures, to 'dump' inappropriate and/or envi-

ronmentally harmful industry in rural areas in order to relieve urban political pressure.

Conclusion

Global economic change is disadvantaging certain sections of Australian agriculture. It is essential to understand the nature global developments and their likely impacts in any assessment of the opportunities for family farm survival and/or growth in Australia. There will continue to be a substitution of capital for labor in agriculture, the growth of agribusiness, greater farmer involvement with agribusiness, and pressure on farm units to adjust to a regime of decreasing commodity prices. Farmers will have some opportunities to expand their activities--so long as they link with and conform to the production needs of corporate capital. One of the main effects of the changes now occurring will be further 'adjustment'. Some farmers will have the chance to supplement farm income with off-farm work. But in the context of reduced commitment to regional policy on the part of the state, only certain farmers and regions are expected to benefit. Farmer stress will quite possibly increase over the next decade, exacerbating already existing social and personal problems among farm family members.

Niche marketing will increase but, again, it would seem that TNCs rather than growers and their organizations will exploit these opportunities. With the state largely unwilling to intervene to support agriculture and inland rural communities, the fate of people living in rural areas will become increasingly dependent on private investment decisions. It is unlikely in the context of declining business in rural towns that individuals and companies will readily invest in smaller towns. The move to a post-fordist or 'neo-conservative society' will quite probably create greater levels of social inequality in rural regions at the same time as it increases pressure on the environment.

Just as it would seem that the prognosis for the physical environment is bleak, so too the prognosis for the human environment. The outcomes for rural people living in an era of post-fordist state policies and economic development arising from supposed free market forces--while admittedly difficult to predict--is likely to be poor.

Notes

1. This is a revised version of a paper presented at the 8th World Congress for Rural Sociology, International Rural Sociology Association, Pennsylvania State University, 11-16 August, 1992. Parts of this paper have also appeared in:

Gray, I. and G. Lawrence (1992) 'The Impact of Restructuring within Land-Based Production Systems: Sociological Perspectives on farm-family stress', Keynote Paper delivered at the Inaugural Joint Conference of the New Zealand Geographical Society and the Institute of Australian Geographers, held at the University of Auckland, January, (to be published in the proceedings).

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Resumen

Consecuencias Ambientales y Sociales de la Reestructuración Económica en la Agricultura Australiana

La naturaleza cambiante de la agricultura australiana es tal que las fincas corporativas se están volviendo comunes. Las granjas familiares están desapareciendo y las que quedan están perdiendo su autonomía debido al control que ejercen las corporaciones sobre las redes de distribución de los productos, por el aumento significativo de cultivos contratados y por los nuevos avances en biotecnología. Estos cambios en la agricultura tienen un impacto ambiental considerable y es necesario que sean considerados en el nivel político a fin de evitar la propagación de la degradación ambiental. Aún más, estos cambios tienen enormes consecuencias sociales, con amplios efectos no sólo en la naturaleza de la actividad agrícola, sino también en la naturaleza de los asentamientos comunitarios en las áreas rurales de Australia.

Frank Vanclay *es Catedrático de la Escuela de Humanidades y Ciencias Sociales, es también investigador clave del Centro de Investigaciones Sociales en el Area Rural de la Universidad Charles Sturt en Wagga Wagga, Australia. La Sociología Rural y Ambiental representan algunos de sus intereses.* ***Geoffrey Lawrence*** *fue director fundador del Centro de Investigaciones Sociales en el Area Rural de la Univerisidad Charles Sturt, siendo ahora profesor fundador de Sociología en la Universidad de Queensland Central, en Rockhampton, Queensland, Australia. Es autor del libro* ***Capitalism and the Countryside****; en coautoría con Frank Vanclay ha publicado el libro* ***Agriculture, Environment and Society: Contemporary Issues for Australia.***

Nuevos Agentes en el Mercado de la Tierra Agrícola en Venezuela

Olivier Delahaye

La reforma agraria en Venezuela no ha cumplido con sus objetivos en materia de tenencia de la tierra. Es el mercado de la tierra, de desarrollo muy activo a partir de 1958, que regula tanto el uso de la tierra agrícola como la estructura de su tenencia. Este mercado está crecientemente dominado por sociedades anónimas, comerciantes y profesionales, mientras los pequeños productores van perdiendo importancia. Los organismos financieros internacionales (Fondo Interamericano de Desarrollo y Banco Mundial) demuestran un interés creciente por el mercado de la tierra, pero sus propósitos (elaboración de catastros, transparencia de las operaciones, etc.) pueden difícilmente cumplirse debido a la complejidad de las relaciones de poder locales que cambian sustancialmente, a nivel de su aplicación práctica, el contenido de las medidas promulgadas a nivel nacional.

Olivier Delahaye es profesor asociado en la Facultad de Agronomía de la Universidad Central de Venezuela. Es Agrónomo graduado en el INA de París y Doctorado en Sociología del Desarrollo en la Sorbona, París. Sus estudios se han centrado en el problema de la tenencia de la tierra y la formación de la propiedad agraria.

Introducción

En América Latina, las proposiciones explicativas que enfocan la cuestión agraria, en el sentido de la regulación del uso de la tierra agrícola, de su tenencia y de su propiedad, se relacionan en general con uno de los dos enfoques de la renta de la tierra, que se pueden presentar de manera esquemática de la manera siguiente[1]:

- Una posición se refiere a los clásicos, siguiendo a Ricardo y a Marx; considera que la tierra es un recurso natural; el nivel de la renta está determinado por una relación social y no por la actividad económica del terrateniente; este enfoque llevará a proponer la eliminación del terrateniente rentista, improductivo, a través de la implementación de la reforma agraria[2];

- Para otros, cuya referencia es mas bien la escuela neoclásica, la tierra es un factor de producción; la actividad económica de su propietario determina su ingreso. La renta corresponde al costo del uso del suelo, y su nivel depende esencialmente de factores económicos. Esta postura razona exclusivamente en términos de cálculo económico. Para ella, sólo la propiedad permite dicho cálculo y por consiguiente, es necesaria para poder mejorar la eficacia de la produceión. Es el mercado, y en particular el de los factores de la producción, que regulará la actividad productiva. Las propuestas basadas en estas premisas se orientarán a mejorar el funcionamiento del mer-

cado, en particular en lo referido a transparencia y fluidez[3].

Una posición teórica intermediaria es la de Polanyi, expresada dentro de una reflexión mucho mas amplia referida al desarrollo del mercado y sus consecuencias (Polanyi, 1983). Para él, no hay duda que la tierra es un dato natural (su capítulo sobre el mercado de la tierra se llama por cierto "el mercado y la naturaleza"). Pero sí considera que, constituida en mercancía ficticia, ésta se intercambia en el mercado sin relación con su condición natural, sino en función de su costo marginal de uso, el cual es, para él, la renta. Evacua pues, a nivel teórico, las relaciones sociales al origen de esta última. Sin embargo muestra como, en los hechos, éstas no han podido ser eliminadas. Expone en este sentido, por ejemplo, que era necesario deshacerse de "la apropiación feudal de la tierra" (Polanyi, 1983:240). Tiene por cierto una expresión que podría resumir muchos estudios sociohistóricos sobre el tema: "lo que llamamos la tierra es un elemento de la naturaleza que esta enlazado inextricablemente con las instituciones humanas. La más extraña de todas las empresas de nuestros antepasados ha sido tal vez la de aislarla para constituir un mercado con ella" (Polanyi, 1983:238). Para esto, hizo falta "separar la tierra del hombre" y "organizar la sociedad de manera a satisfacer las exigencias de un mercado de inmuebles".

Nuestra posición pretende afianzar, en lo referido a la cuestión agraria, las propuestas de Polanyi: consideramos como central la reflexión sobre el mercado de la tierra. Para esto, enfocaremos aquí el creciente papel del mercado en la regulación de la cuestión agraria en Venezuela, mientras su regulación por vía administrativa directa (es decir a través de la reforma agraria) pierde toda relevancia; observaremos el proceso a través del cual la tierra agrícola adquiere las características de una mercancía (lo llamaremos mercantilización de la tierra); en fin, se tratará de presentar las tendencias que se pueden observar en la intervención de los distintos agentes sociales quienes intervienen en este mercado: la aparición de nuevos agentes así como el papel de los organismos financieros internacionales, los cuales nos obligan a enfocar al mercado en una perspectiva global. Los datos utilizados provienen en su mayoría de una investigación[4] cuyas características se presentan rápidamente a continuación.

Algunas precisiones sobre el Estudio

El estudio se realizó a nivel de seis distritos representativos de las distintas problemáticas agrarias de Venezuela[5]. La principal fuente de información corresponde a las actas protocolizadas en los libros del Registro de la propiedad inmobiliaria, dependencia administrativa del Ministerio de la justicia. Ahora bien, las indicaciones allí obtenidas se refieren a las operaciones que son formalmente legales. Otras operaciones no tienen esta característica; se trata de las ventas de "bienhechurías" fomentadas en terrenos del Instituto Agrario Nacional (IAN, responsable de la implementación de la reforma agraria). La superficie total de dichos terrenos sería, a nivel nacional, de unos 15 millones de hectáreas[6], es decir aproximadamente la mitad de la superficie total de las explotaciones (31,2 millones de hectáreas, según el último censo agrícola - 1985). En dichas tierras, los intercambios mercantiles (que no llevan sobre la tierra misma, sino sobre las bienhechurías fomentadas en ella) son formalmente ilegales, lo que hace que no están registrados, y su conocimiento no se puede obtener sino a través de la realización de trabajos de terreno a pequeña escala, los cuales parecen indicar hasta ahora que las características de estas transacciones son bastante similares a las de las operaciones objetos de actas registradas[7] en una misma

región. En lo que sigue, me apoyaré sobre los datos observados a partir de las actas del Registro, referidos al mercado formalmente legal, asumiendo que las operaciones "ilegales" no son significativamente distintas.

El período bajo revista abarca los años 1958-1990, que corresponden al desarrollo de un mercado de la tierra, el cual se extiende en los años sesenta a todo el territorio agrícola del país, en relación con la implementación de la reforma agraria (Delahaye, 1993). Lo dividí en los tres lapsos siguientes, tratando de vincular la evolución de la aplicación de la reforma agraria con la de las políticas económicas aplicadas por el gobierno:

1958-1973: la estrategia de substitución de las importaciones, en la cual la reforma agraria ocupa en principio un lugar importante para el abastecimiento del mercado interno, es el eje de la política económica. Rápidamente, sus resultados se estancan, paralelamente al debilitamiento del modelo inicial de redistribución de la tenencia de la tierra a través de la reforma agraria[8];

1974-1982: Los aumentos sucesivos del precio del petróleo (1973-1974 y 1979-1981) amortiguan las consecuencias del agotamiento de la política de substitución de las importaciones (Aranda, 1977). La reforma agraria ya no se orienta hacia la redistribución de la tenencia, sino hacía la regularización de situaciones de hecho;

1983-90: la baja del precio del petróleo es el detonante de una crisis del modelo de redistribución de la renta petrolera por el Estado. El 18 de febrero 1983, fecha de la puesta en flotación del bolívar cuya paridad con el dolar estaba mantenida fija desde mucho tiempo[9], indica cómodamente el inicio de este lapso, marcado por la aplicación cada vez mas precisa del modelo liberal aplicado bajo las indicaciones de los organismos financieros internacionales siempre más solicitados por los sucesivos gobiernos debido al peso creciente de la deuda exterior. Este modelo le da una importancia determinante al mercado de la tierra como instancia primordial en la regularización del uso de la tierra para la producción agrícola.

El mercado regula cada vez mas la cuestión agraria en Venezuela

La reforma agraria estancada

Los objetivos de la reforma agraria en materia de redistribución de la tenencia de la tierra[10] no se cumplieron, si se observan los resultados de los censos agropecuarios de 1961 y 1985. Las pequeñas explotaciones agrícolas (menos de 50 ha) han reducido de 8,7 a 7,8% su importancia relativa en la superficie de las explotaciones agrícolas, mientras las medianas (50 a 1.000 ha) veían su porcentaje superficial crecer de 24,2 a 34,3. Las grandes perdían importancia relativa, la cual pasaba de 67,9% a 57,9%).

Un mercado en pleno desarrollo

Pero si se observa la actividad del mercado, expresada en términos de movilidad de la tierra[11] en los distritos estudiados, se observan cifras extremadamente altas, mayores a 4% en todos los casos. Esto representa valores bastante altos en comparación con los referidos en otros países[12]. Ahora bien, si se aplica esta relación a nivel nacional, corresponde a un intercambio anual de tierra a través del mercado de 31.500.000 x 0,04 = 1.260.000 hectáreas[13]. Esta cifra es ampliamente superior a la superficie dotada anualmente en el marco de la reforma agraria a lo largo de los tres lapsos estudiados, indicada en el Cuadro 1. Vemos incluso que el promedio anual de la superficie cuya tenencia ha sido regularizada[14] por el IAN queda muy inferior al observado para los terrenos intercambiados en el mercado. Es una indicación del papel sobresaliente desempeñado por el mercado en la regulación

de la tenencia de la tierra, en relación con el de la reforma agraria, incluso en los primeros años de esta última, cuando tenía una actividad de dotación relativamente elevada. Por otro lado, la importancia cada vez mayor del programa de regularización de la tenencia en tierras de la reforma agraria es otro signo de la relevancia creciente del mercado, en la medida en la cual se refiere en buena parte a tierras del IAN dotadas, cuyas bienhechurías habían sido traspasadas (ilegalmente, lo vimos) por sus beneficiarios originales a otros productores: en este sentido, la regularización convalida a posteriori la acción del mercado.

Cuadro 1. **Venezuela: superficie anual dotada y regularizada en el marco de la reforma agraria (1958-1990).**

Lapso	Superficie promedio dotada anualmente (ha)	Superficie promedio regularizada anualmente (ha)
1958-1973	353.333	0
1974-1982	161.111	277.777 *
1983-1990	80.375	262.500

* Años 1979-1982 solamente.
Fuente: Departamento Estadístico, y Memorias anuales, del Instituto Agrario Nacional, cálculos propios.

En varios otros aspectos, la actividad del mercado toma una importancia creciente a lo largo del período estudiado. Por ejemplo, las hipotecas en tierras agrícolas demuestran un crecimiento prácticamente general, tanto del monto promedio como del número anual de las hipotecas (el monto anual promedio de los créditos hipotecarios se multiplica por 8 o mas, en todos los distritos estudiados, entre 1958-73 y 1983-90), lo que apunta hacía un carácter crecientemente mercantil de la propiedad agrícola. Incluso, en todos los casos, la importancia relativa del monto de las hipotecas en relación con la del monto de las transacciones crece sustancialmente: de valores inferiores a 50% en los años 1958-74, esta relación alcanza cifras mayores de 100 y 200% en 1982-1990. La evolución de los arriendos de tierras demuestra una progresión espectacular a partir del segundo lapso estudiado (en 1983-1990, el número promedio anual alcanza por lo menos 500% del valor de 1958-73). Es una indicación más del auge del mercado de la tierra.

En todos los aspectos, la importancia del mercado crece pues a lo largo del período bajo revista; en particular, las superficies abarcadas por las compra-ventas son sustancialmente mayores a las dotadas y a las regularizadas a través de la reforma agraria. Este conjunto de indicadores parece reflejar la importancia cada vez mayor del mercado como regulador del uso de la tierra, en relación con la pérdida de relevancia de la regulación administrativa vía reforma agraria.

La creciente mercantilización de la tierra

Otro proceso vinculado con la expansión del mercado puede ser puesto en evidencia, se trata de la evolución de **la mercantilización de la tierra**, la cual pretende expresar el proceso a través del cual la tierra intercambiada en el mercado adquiere las características de una mercancía[15]. Para su observación en el período estudiado, propongo el examen de los indicadores siguientes, que expresan rasgos de esta transformación (Delahaye, 1983):

- conformidad de la propiedad con las disposiciones legales;
- precisión en la superficie de los terrenos intercambiados en el mercado;

- precisión en la determinación de los limites de dichos terrenos;

En cuanto a la **conformidad de la propiedad**, se puede observar al respecto la evolución del porcentaje de terrenos vendidos o hipotecados en los 6 distritos estudiados, por el período bajo revista, que corresponden a la figura de "derechos y acciones" en una comunidad indivisa, es decir con una indicación de propiedad poco asegurada (en particular, el propietario de un terreno adquirido bajo esta figura no lo puede cercar ni hacerle mejoras sin el consentimiento del conjunto de los condueños, lo que limita singularmente sus posibilidades de desarrollo agrícola). En prácticamente todos los distritos, la proporción de terrenos vendidos o hipotecados en la forma "derechos y acciones" disminuye sustancialmente[16]. Vale la pena observar que la proporción de "derechos y acciones" en los terrenos hipotecados es inferior, en todos los casos, a la observada en los terrenos vendidos, probablemente debido a la mayor exigencia demostrada por los acreedores respecto a la conformidad de la propiedad. Podemos pues observar una progresión de este aspecto de la mercantilización a lo largo del período bajo revista.

Las indicaciones refiriendo los terrenos intercambiados pueden ofrecer varios grado de precisión en **la especificación de sus limites.** Para calificar esta, utilizaremos las siguientes categorías:

-límites muy imprecisos: basados en indicaciones topográficas muy generales, o bien árboles;

-límites imprecisos: basados únicamente en la indicación de las propiedades vecinas ; no hay referencia a la existencia de mojones;

-límites precisos: basados en la existencia de mojones y de un plano topográfico anexo al acta de venta.

El Cuadro 2 ofrece las recopilación de las indicaciones de limites en los terrenos vendidos o hipotecados en el Distrito Zamora[17]. Observamos un continuo aumento de su precisión a lo largo del período estudiado.

Cuadro 2. **Distrito Zamora: grado de precisión de los límites indicados sobre las actas de venta registrados (1958-1990)**

Período	Porcentaje de actas con indicación de límites			
	muy imprecisos	imprecisos	precisos	sin indicación de límites
1958-73	81,8	15,2	2,6	0,3
1974-82	74,4	22,8	21,4	0,4
1983-90	24,4	48,5	26,7	0,4

Fuente: libros del Registro de la propiedad inmobiliaria.

En cuanto a la proporción de ventas registradas con **indicaciones de superficie** en las actas registrados en los distritos estudiados se observa una progresión en todos los distritos. Evidentemente, la especificación de la superficie, incluso aproximada, del terreno vendido, es un aspecto esencial para calificar su mercantilización.

Los aspectos enfocados apuntan a un proceso creciente de mercantilización de la tierra agrícola en los seis distritos. Se refuerza así lo observado, en lo relativo a la afirmación del papel regulador del mercado, del cual la mercantilización de la tierra es un supuesto. ¿Ahora bien, cuáles son los agentes que participan de este proceso?

Sociedades Anónimas, Comerciantes, Profesionales: Nuevos Agentes en el Mercado

Al observar la composición de los agentes que intervienen en el mercado se pueden poner en evidencia los siguientes aspectos:

- la importancia relativa de **las personas naturales** va decreciendo a lo largo del período bajo revista, tanto en los compradores y vendedores de terrenos como en las operaciones de crédito hipotecario, donde, en particular, desaparecen prácticamente como prestamistas;
- **los bancos** se muestran inactivos en las compra ventas, demostrando una completa falta de interés por la propiedad territorial[18]. Pero demuestran una presencia masiva a partir de 1974 en el otorgamiento de hipotecas, en 4 distritos de los 6[19] estudiados. Este fenómeno puede ser puesto en relación con las medidas gubernamentales de 1974, que prescribían a los bancos de dedicar una proporción mínima de sus préstamos a los productores agrícolas.
- **los organismos públicos** tienen una presencia discreta en general, con la excepción del otorgamiento de hipotecas en Páez y Turén (vimos que allí son los bancos públicos los que conceden la mayor parte del crédito hipotecario), y de las compras en Zamora (donde corresponden a las adquisiciones por parte del Instituto Nacional a fines de reforma agraria, por razones esencialmente locales);
- en fin, **las sociedades anónimas** demuestran una importancia creciente, en todos los distritos. Se muestran siempre más compradoras que vendedoras y su balance territorial es siempre positivo. Ahora bien, son esencialmente las sociedades dedicadas a la producción agrícola[20] las que compran y venden. En particular, las sociedades financieras no tienen prácticamente ninguna actividad en este sentido. Se confirma de esta manera lo observado más arriba en relación con la poca actividad de los bancos en las adquisiciones de terrenos agrícolas: a pesar de las esporádicas denuncias al respecto, el capital financiero no demuestra un particular interés por la propiedad territorial en la agricultura.

Ahora bien, si examinamos **el domicilio de los agentes** que intervienen en el mercado, constatamos que las transacciones realizadas por los compradores y vendedores residenciados en Caracas conciernen, en casi todos los casos, terrenos de dimensiones mayores a las del promedio observado en cada distrito. Esto nos indica que se trata de agentes cuya propiedad o tenencia se refiere a terrenos de mayores dimensiones. Dentro de las profesiones cuyo control sobre la tierra va aumentando a lo largo del período estudiado, son los profesionales domiciliados en la capital del estado[21] quienes llevan un balance positivo de sus operaciones de compra-ventas mientras los comerciantes en el mismo caso llevan un balance mas contrastado. Mas generalmente, los compradores con domicilio urbano fuera del distrito ven aumentar su importancia dentro de los compradores en 4 de los distritos estudiados.

Las indicaciones sobre **nacionalidad de los compradores y vendedores de terrenos** en los distritos estudiados permiten constatar un porcentaje de extranjeros más alto, en todos los casos, que en el promedio de los agricultores, según los datos del censo agropecuario de 1961[22].

El conjunto de las observaciones apunta a presentarnos un mercado en el cual crece la importancia de los agentes de profesión no agrícola, de domicilio urbano, e incluso de nacionalidad extranjera. Se puede pensar que este fenómeno refleja a nivel del mercado de la tierra "los nuevos agricultores, sobre nuevas

tierras, con nuevas tecnologías, conformando un sector agropecuario moderno con muy pocos vínculos con el existente anteriormente" (Llambi, 1988:226) que aparecen a fines de los años cuarenta (Carvallo y Hernández, 1990) . Los datos obtenidos en el Registro nos permiten incluso observar ciertos aspectos de la perdida correspondiente de la importancia de los pequeños productores históricos en el mercado. Si bien la profesión de pequeño productor no está indicada como tal, se puede suponer que representa una proporción importante de las actas referidas a terrenos de pequeña superficie (menos de 50 ha), en las cuales el comprador o el vendedor es de profesión agricultor, de nacionalidad venezolana, y domiciliado en el mismo distrito. En 5 distritos de los 6 estudiados, este grupo reduce sustancialmente su control de la tierra en las explotaciones agrícolas a lo largo del período bajo revista[23]. Por otra parte, el Cuadro 3 indica que este grupo percibe por sus ventas de tierra un precio unitario varias veces inferior al promedio del distrito, lo que apunta a una situación de clara desventaja en el mercado.

Mercado de la tierra y organismos financieros internacionales

Ahora bien, otros actores se hacen presentes en el mercado de la tierra, siguiendo los términos de Llambí (1993:31), para quien "las agencias multilaterales de desarrollo y los Estados Unidos promueven una doctrina en favor del libre mercado". En este sentido, el Banco Mundial y el Banco Interamericano de Desarrollo hacen de la privatización de las tierras del Estado (hemos visto que la mitad de las tierras de las explotaciones se encuentra en tierras publicas) un dogma fundamental del desarrollo agrícola en América Latina. Esta posición se acompaña con la formulación de incentivos para desarrollar programas de realización del catastro y de mejoramiento del Registro de la propiedad, con el objetivo de mejorar el funcionamiento del mercado (la mercantilización de la tierra dista mucho de ser completa, a pesar de la evolución observada mas arriba). Por ejemplo, el Banco Interamericano de Desarrollo tramita un crédito de ochenta millones de dólares para realizar

Cuadro 3. **Venezuela: estimación del precio promedio por hectárea (Bolívares constantes de 1984) del conjunto de las transacciones y percibido por los pequeños productores, por los períodos y en los distritos indicados.**

	1958-1973		1974-1982		1983-1990	
Distrito	A	B	A	B	A	B
Zamora	1.948	1.668	4.315	2.474	13.862	4.150
Zaraza	148	30	242	31	288	24
Colón	923	503	1.217	723	2.662	742
Páez	42	92	180	66	326	71
Turén	812	74	2.777	110	2.919	132

A = Precio promedio anual más bajo observado en el distrito por el período indicado;
B = Precio promedio de los terrenos de menos de 50 hectáreas vendidos por agricultores domiciliados en el distrito en el período indicado; los datos de Bailadores no se pueden utilizar.
Fuente: Registro de la propiedad inmobiliaria, cálculos propios.

parcialmente el catastro, tanto mas justificado que el Director de la Oficina Central del Catastro Agrícola declara en 1991 que el Estado no sabe donde se encuentran sus tierras[24].

Pero los eventuales resultados de la aplicación concreta de estas políticas prestan a dudas. En efecto, los datos observados referidos al papel de los organismos del Estado ponen en evidencia modalidades locales a través de las cuales, en la practica, las medidas de política de tierras promulgadas a nivel central no son aplicadas. Se ha podido hablar al respecto de **pactos locales** (CENDES-CIDA, 1967-70) para referirse a la actuación de esta constelación de notables, empresarios y representantes de la administración a nivel de la cual se modifican en su aplicación las disposiciones tomadas a nivel nacional. Se perpetua así un viejo dicho de la América hispánica: "las leyes se acatan, pero no se cumplen". Se trata de un aspecto esencial a menudo despreciado por los teóricos y los planificadores[25].

La idea que el mercado de la tierra agrícola en Venezuela entrará directamente, a corto plazo, en el proceso mundial de globalización no se puede pues sostener, a pesar de los esfuerzos de los organismos multilaterales de desarrollo.

Conclusiones: Mercado, Nuevos Agentes y Regulacion del Uso de la Tierra.

El mercado de la tierra aparece cada vez mas en Venezuela como el proceso regulador mas importante del uso del suelo para la producción agrícola, así como de la estructura de la propiedad y de la tenencia.

Los nuevos agentes en este mercado son esencialmente constituidos por sociedades anónimas, comerciantes y profesionales urbanos, mientras los pequeños productores pierden paulatinamente su ya escaso control de la tierra, en condiciones particularmente desfavorables para ellos.

Se podría pensar que la intervención de los organismos financieros internacionales puede contribuir a integrar el mercado de la tierra agrícola en Venezuela en un sistema transnacional de producción agroalimentaria. Pero dicha integración no se podrá realizar directamente, sino a través del proceso de globalización de la producción agrícola (sobre éste, ver Bonanno, 1991; Friedland, 1991).

En fin, es necesario orientar la reflexión agraria hacia el papel del Estado en el proceso de desarrollo del mercado de la tierra agrícola. Se observa como sus niveles locales demuestran una eficaz renuencia para aplicar las normas establecidas a los niveles centrales. En este sentido, se puede constatar la convergencia de intereses contradictorios (subrayada en Bonanno, 1991) entre los pequeños productores y los niveles centrales del Estado, que se enfrentan a los grupos de poder regionales quienes controlan, en la práctica, la aplicación de las políticas de la tierra a través de los pactos locales. Una vez más encontramos una expresión de Polanyi (1983) para quien "toda una red de medidas y de políticas dio lugar a poderosas instituciones destinadas a entrabar la acción del mercado relativa al trabajo, la tierra y la moneda".

Notas

1. Este trabajo corresponde a una versión corregida de ponencias presentadas en el XIX Congreso de la Asociación Latinoamericana de Sociología (Caracas, Venezuela 30/5-4/6/1993), y en la Reunión sobre "Globalización y nuevos agentes reguladores en el sector agroalimentario" (Porlamar, Venezuela 4-7 de junio de 1993), organizada por el Grupo de Trabajo sobre Sociología de la Agricultura y de los Alimentos. Agradezco a los participantes a estos eventos por sus observaciones, en particular a Alessandro Bonanno, William Friedland y Nelson Prato Barbosa.

2. Un ejemplo representativo de esta postura se encuentra en Katz, 1990.

3. Esta posición tiene un lugar dominante en las propuestas para el sector agrícola de los organismos financieros internacionales (Banco Mundial, Fondo Monetario Internacional) .Ver una buena exposición teórica en Boussard, 1987.

4. Realizada en el marco del Proyecto S1 2421 financiado parcialmente por el Consejo Nacional de Investigaciones Científicas y Tecnológicas-CONICIT (Venezuela).

5. Tres en regiones de agricultura antigua, es decir de propiedad privada ya formada (un distrito -Zamora- en la región central de agricultura intensiva, otro en los llanos -Zaraza- donde se observa una ganadería extensiva en vías de modernización, y el último -Bailadores- en una región andina de pequeña propiedad predominante), y tres en regiones de frontera reciente o actual, es decir de terrenos de propiedad casi exclusivamente pública: Colón, de ganadería lechera en el sur del lago de Maracaibo, Turén, sede de un programa de colonización dirigida a la creación de empresas medianas mecanizadas de cultivos anuales agroindustriales, y Páez, en la frontera colombiana, sede de una desforestación muy reciente por parte de pequeños y medianos agricultores y ganaderos). La superficie de las explotaciones agrícolas de estos distritos corresponde a 8,1% de la superficie agrícola total en 1971.

6. Según estimaciones de la Gerencia de tierras del IAN (1990).

7. Ver al respecto los resultados expuestos en Anzola y Jaramillo, 1991; Bolivar, 1991; Brea, 1991; Falcon, 1992; García, 1991 Y Palacio, 1986.

8. Ver CENDES-CIDA, 1967-1970, t. 1 y 2.

9. La tasa de cambio del dólar por bolívares se mantenía entre 3,8 y 4,5 desde 1934.

10. Expresados en el artículo 1 de la Ley promulgada en 1960.

11. La movilidad de la tierra en una región dada corresponde a la proporción (%) de la superficie promedio vendida anualmente en la región, dentro de la superficie total de las explotaciones agrícolas en la región.

12. La movilidad de la tierra en el mercado es inferior a 3% en la mayor parte de los países de la CEE y de la OCDE según VARELA (1988:184).

13. Superficie total de las explotaciones en 1984 multiplicada por movilidad.

14. La "regularización de la tenencia" corresponde a un programa desarrollado a partir de 1979 para reconocer la situación de productores quienes ocupaban, sin título, tierras del IAN. La mayor parte de las superficies regularizadas corresponde a medianos productores, quienes habían comprado sus bienhechurías a pequeños productores (Delahaye, 1986).

15. La mercantilización puede ser considerada como la variable expresando la "movilización" de la tierra enfocada por Polanyi.

16. De otro punto de vista, la cada vez menor proporción de terrenos indivisos corresponde a una disminución del libre acceso a los terrenos correspondientes por parte de los pequeños criadores sin tierra, quienes podían, en ciertos casos, usufructuarlos (Delahaye, 1993).

17. No fue posible realizar un trabajo similar en los demás distritos.

18. Tampoco ejecutan las hipotecas vencidas, prefiriendo otras soluciones (en general, refinancian con nuevos créditos).

19. En los dos restantes, caracterizados por ser de frontera agrícola reciente, son los organismos crediticios públicos que juegan el papel más importante en este aspecto.

20. Estas sociedades parecen estar constituidas con capitales nacionales.

21. Venezuela es un país federal constituido por 22 estados y un Distrito Federal.

22. Los censos posteriores no ofrecen este dato.

23. El distrito Turén representa una situación distinta, por el hecho que los programas oficiales de colonización llevados a cabo en dicha región, a pesar de dirigirse a "agricultores modernos", establecieron por mucho tiempo un tamaño de parcela inferior a 50 hectáreas. Por esta razón, numerosos productores de este tipo están representados en la categoría de menos de 50 hectáreas.

24. Diario "El Nacional" del 29/9/91.

25. Se puede comparar esta situación con las descripciónes de Comby, Renard y Acosta (1991:47) en su reciente vuelta de una misión de Rusia cuyo objeto era el estudio de las condiciones de la privatización de la tierra. Muestran que, en dicho pais, la ley es "concebida mas bien como una orientación de la Autoridad que como una regla que se deba aplicar igualmente a todos los actores, incluso a los representantes de las autoridades cualquier sean".

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Abstract

New Agents in the Agricultural Land Market in Venezuela

The agrarian reform in Venezuela has not reached its original objectives regarding land distribution. The land market is the entity which regulates both the use of land as well as the structure of property. This market has developed very quickly since 1958. Moreover, this land market is increasingly dominated by corporations, individual businesspeople, and professionals, while small producers are losing importance. International financial organizations (such as the Inter-America Development Fund and the World Bank) show a growing interest in the land market. However, their objectives (creation of property records and establishment of clearer procedures, etc.) cannot be easily accomplished due to the complexity of local power relations. These relations substantially change the content of the measures established at the national level when applied in practice.

***Olivier Delahaye** is Associate Professor of Agronomy at the Central University of Venezuela. He is a graduate of INA in Paris and received a doctorate in Sociology of Development from the Sorbonne. His work focuses on problems with land tenure and the creation of agricultural property structures.*

Family Agriculture, Modernization and Rural Development in Brazil

Sonia Maria Pessoa Pereira Bergamasco

Analyzing settlers strategies, this paper discusses modernization in rural settlements in Brazil. Two settlement nuclei in the state of São Paulo are analyzed. The first one was established in the sixties under the government of Carvalho Pinto. The second one, established in the eighties, was part of "Programa Fundiário", the agrarian program of Franco Montoro's government. This first settlement was planned by the State, and the settlers were selected based on existing criteria. Therefore, in this case, there was no struggle for land. On the other hand, the more recent nucleus presents a complex strategy which tries to maintain and reproduce the family on the land. For this reason, these families demonstrate an interest in the use of modern technologies, in spite of the lack of a planned policy on the part of the State. Instead, the State has been present in the settlement establishment more as a response to the landless workers struggle, which started to gain recognition at the beginning of the eighties. It is obvious that the State lags behind in the development process, despite the need for more active intervention on its part.

Sonia M. P. P. Bergamasco is a professor of sociology at the Faculdade de Engenharia Agrícola/UNICAMP in Brazil. She has researched topics in the sociology of agriculture and in the structure of agriculture.

Introduction[1]

Two settlements were studied for this project. The first one, "Fazenda Capivari," was established in the municipality of Valinhos, State of São Paulo, in the sixties, by governor Carvalho Pinto, in accordance with the law, *Revisão Agrária do Estado de São Paulo* (Agrarian Reform of São Paulo State), Law nº 5994, December 31, 1960. The other settlement, "Sumaré I", was established 25 years later by the governor Franco Montoro at Horto Florestal Boa Vista in Sumaré, São Paulo, in accordance with the governmental program, *Programa de Valorização de Terras Públicas (PVTP),* (Program for the Use of Public Land), Law nº 4957, December 30, 1985.

The role of the government in defining policies for settlements and modernizing agricultural techniques is discussed comparatively with the family strategies and modernization prospects adopted in each settlement. It is important to point out that each government policy was adopted for its time; therefore, it is not being judged here for its benefit, or lack thereof, since these policies were the expression of contradictory forces, represented by rural workers, the State, the Church, worker unions and political parties (Bergamasco, 1990).

The concept of family strategies is based on the family's behavior as a group, being continuously readjusted in its activities and in the means adopted for the realization of their activities. This concept is fundamental in under-

standing the rural workers' responses to the presence or absence of the State's actions[2].

The modernization process and the demands of a competitive agriculture is present in the discussion about the inclusion of landless workers in the settlements. It is considered fact that as agriculture becomes modernized the traditional peasantry sector is subjected to great changes related to the dominant laws (status quo). Subordination can occur as a result of this process, but the process can also reaffirm the "autonomy" of the family unit (Wanderly, 1988).

It should be pointed out that the modernization process which Brazilian agriculture went through in the last decades presents itself as an incomplete transformation--still partial, unequal, and exclusionary in terms of producers, regions and products. It has also been strongly supported by public resources. In defining this modernization pattern, the feasibility of small family producers has not been considered.

Information was obtained directly from the workers in the settlements, from technicians involved in the project and also from documents and reports. Based on these data, the objective was to characterize the action of the State, the adjustments and strategies of the family unit and the unit's integration into the process of agriculture modernization.

The Presence/Absence of the State

The São Paulo State Agrarian Reform: The Context and Spirit of the Law

In the fifties and sixties, the urbanization process increased quickly in the middle-south, an economically well-developed axis, which demanded a modern agriculture able to provide food. However, in São Paulo State this need competed with an expansion in the acreage of sugarcane plantations and the concentration of large estates in the hands of a few landowners. This resulted in a great labor offering to industries and sugarcane plantations, since rural workers did not fit into this concentration pattern. A negative aspect of this pattern was the expropriation and adjustment of the small farmers in supplying raw material. Therefore, it became more and more difficult to supply the urban demand for food previously provided by the small farmers.

Along with the crisis of the food supply, contradictions arose between an intense workers mobilization[3] and the need to provide the means for a modern agriculture.

At this time, the demands from the rural workers' organization, as well as from the intensive agricultural modernization process, were the basis for the preoccupation of the State of São Paulo, exactly because the most developed Industrial Center in the country was being established there, forcing the agricultural sector to develop by the same mechanisms.

To settle 500-1000 rural workers per year, to encourage cooperation and colonization, and to set up new fiscal measures were the goals of the São Paulo State Agrarian Reform. It was permeated by an ideological character towards fast economical development, and, as mechanisms to increase productivity, it was given support to improve research related to production quality, commercialization and the teaching of new agricultural techniques through the establishment of *Casas de Lavoura* (Offices of Rural Assistance) and *Escolas de Iniciação Agrícola* (Schools of Agricultural Methods).

It seems that the Agrarian Reform[4] was based on an attempt to establish a middle class which would be able to produce food and to consume industrialized products. Another objective was to encourage the capitalization of small farms equipped with sophisticated techniques like those used in America.

By analyzing the Law Proposal of the Agrarian Reform, it is possible to perceive that it was also an effort to block the advance of the rural social movements that had erupted in the previous decade, which could be detected in various ways, including the mobilization of land tenants in Santa Fé do Sul; strikes on coffee, sugarcane and cotton farms; and land occupation and clashes between workers and landowners in Fernandópolis, Jales, São Joaquim da Barra and the like.

Law nº 5994 of December 31, 1960, known as *Lei Revisão Agrária* (the Agrarian Reform Law), was defined in a political project with the title *Reforma Agrária Paulista* (State of São Paulo Agrarian Reform). Its basic points were the following (Secretaria da Agricultura do Estado de São Paulo, 1960): to lend a social meaning to the *Imposto Territorial Rural (ITR)* (Rural Territorial Tax); to levy a progressive tax on land in the State of São Paulo, exempting small farmers; to increase taxes on productive non-cultivated land; to promote, through the proceeds of the ITR, the purchase of rural property by those interested in exploring it as small farmers; and to encourage, through progressive taxes, production improvement on non-cultivated land in order to balance the conditions of supply, to restrain land speculation and to enhance the adoption of modern agronomic techniques.

An *Assessoria de Revisão Agrária (ARA)*, or Agrarian Reform Advisory Committee, attached to the Agricultural Bureau of the State of São Paulo, was created and charged with establishing the future nuclei of the agrarian reform. It was at this time that the appropriation of private estates, nuclei planning and family selection began.

The Agrarian Reform, although short lived, was responsible for the establishment of three rural nuclei: Fazenda Capivari in Valinhos, the subject of this paper; Fazenda Santa Helena in Marília and Fazenda Pouso Alegre in Jaú. It resulted in the appropriation of 7,348 hectares and the settlement of 269 families.

The selection of families was done by a committee formed by agronomists employed by ARA (Governo do Estado de São Paulo, 1960). The criteria for priority selection were: 1) rural workers with no land; 2) anyone who had worked in agricultural or cattle raising for over five years as land tenants, sharecroppers, or rural workers; 3) sharecroppers, land tenants, or rural workers who were members of agricultural and cattle raising cooperatives; 4) agricultural technicians who had graduated from any level; 5) agronomists and veterinarians; 6) those who had graduated in any area, but who were experienced in agriculture and cattle raising; 7) those who had fought abroad in the second world war; 8) native or naturalized Brazilians; 9) residents in the settlement municipality area for over 5 years; 10) heads of the largest families.

Besides these criteria, some rules were set up to avoid the possibility of speculation (Secretaria da Agricultural do Estado de São Paulo, 1970). First, the settler had to live with his family on the site for at least five consecutive years, working there directly, but with permission to hire others to complement family labor. Secondly, the settler had to start cultivating the site within one year from the signature of the contract; and finally, the site had to be rationally cultivated in the second year in accordance with a plan proposed by the settler with the assistance and approval of the Agricultural Bureau.

Fazenda Capivari

The rural nucleus Fazenda Capivari originally included 72 families, from which only 21 presently remain on their sites. The settlement expanded by six families during the second and third years. The Government, for the purpose of agrarian reform, expropriated an area

of 672 hectares. The transaction between the government and the Guimarães family, owners of the area, resulted in a friendly purchase. The government became interested in this specific area because it fulfilled the requirements defined in the project. It was close to important urban centers and served by roads to facilitate the transport of the goods to be produced in the settlement. The Fazenda Capivari Rural Nucleus is 15 km from Valinhos, 18 km from Vinhedo, 20 km from Campinas and 25 km from Indaiatuba, all major towns in one of the most important areas of the state. The Bandeirantes highway cuts through the nucleus, while the Anhanguera highway is seven kilometers from its center, with the road linking Campinas to Indaiatuba only six kilometers from the nucleus.

The settlement of the families in their sites was slow, starting at the end of 1961 and continuing through 1962. In the selection of the families, there was a certain preference for immigrants from Japan and Italy, so these families occupied the majority of the sites. Families with no background in agriculture, but who possessed good economic situations were also chosen, in accordance with the requirements of the Agrarian Reform.

The size of the sites handed over to the beneficiaries, which varied from 3.64 to 23.34 hectares, have remained practically unchanged up to the present, except for a few sites whose owners bought part or all of the neighboring sites. Some settlers left the nucleus for various reasons, such as the inability to pay their debts with the bank; the loss of the site for not being able to fulfill, in due time, the requirements; or the sale of the site in order to move to better conditions in town.

The sites were sold to the settlers, with payment either in cash, or through a 15 year loan at six percent interest per year. The sale price included the value of the land, the expenses of the improvements made by the government, and the refundable expenses of the community center.

The nucleus was totally planned. Each family received their site with a brick house, its size varying according to the number of family members. Besides the house, a pigsty and a shed were also built. The present conditions of the buildings is good; some of them have undergone renovation, with mainly the houses being enlarged, in the process changing their original design.

Right after the occupation of the sites, electric power was installed, with water being supplied by a common well and a reservoir. Every house had electricity, sanitation and a gas stove. Afterwards, the water supply was provided by an artesian well.

From the beginning, the settlement had a school building for the four elementary grades; afterwards the building was enlarged in order to offer intermediate classes. In the same building was a small infirmary and the headquarters of an agricultural cooperative. This cooperative received one tractor and a truck for community use. This cooperative, previously a condition of the project, lasted for only a short period (3-4 years) and finally became extinct because of disagreements among the members. At the beginning, most of the settlers produced traditional regional crops such as corn, peanuts, and mainly, cotton.

Crops were unsuccessful due to hard frosts, and at the end of the third year, many farmers were in debt to the banks and grain buyers, with whom they had contracted to sell their products in exchange for seeds and tools. Therefore, after the grace period, some sites were sold; those settlers who remained managed only by refinancing their debts and substituting export crops for traditional ones. These export crops were mainly fruits, such as figs and grapes. Presently, however, there is some diversity, including other species such as

guava, Kaki (persimmon fruit) and the like. Some sites have a significant production of asparagus, a high value product.

The Democratic Government of São Paulo and the Plan for Public Land Use: The Framework of State Agrarian Policy

The end of the seventies and the beginning of the eighties determined in a decisive way a historical period in the country, as the economic model responsible for the "Brazilian Miracle"--conceived and managed by successive military governments--collapsed. This crisis brought along successive urban strikes and considerable progress in rural organization.

The process of migration, from rural areas to the cities and from less developed regions to developed ones, resulted in an intense growth in the urban population[5], an increase in unemployment, and a growth in the demands for land, work and better living conditions.

The economic model accommodated the establishment of the largest industrial complex of the country in the state of São Paulo, and stimulated the entrance of multinational capital. The application of this economic model continued after the 1964 coup d'état.

Agriculture, following this process, had to become modernized. With this objective in mind, an agricultural policy was established which set up a primary sector able to compete in the international market, employing modern techniques to increase productivity. This policy consisted of rural credit, minimum prices, fiscal incentives and technological policy.

It should be noted that this policy gave more incentives to crops for the international market at the expense of those produced for the national market. Internal market crops developed little and even decreased, so that at certain times it was necessary to import these crops.

In response to this economic model, conflicts over the ownership of land began in the eighties. According to data from Associação Brasileira de Reforma Agrária (ABRA), 53 conflicts over land ownership were registered in 1980/81 in the state of São Paulo, involving 7,870 people disputing 131,108 hectares of land, resulting in two deaths and 14 wounded. In this context, the government plan of Franco Montoro, named *Política Agrária Estadual* (Agrarian State Policy), was defined by the Plan for Public Land Use and the *Program de Regularização Fundiária* (Program of Agrarian Regulation). This policy played a major role in the solution of conflicts in Vale do Ribeira and Litoral Paulista.

More than a partial solution to the problem of Agrarian Reform, this policy was presented as a mitigation of the conflicts over land ownership. Its objectives were "to promote an effective agriculture, cattle raising or forestry on unproductive, underutilized or inadequately used land; to create opportunities for work; and to provide social and economic progress to rural workers with no land or with insufficient land to guarantee their subsistence" (Secretaria Executiva de Assuntos Funiarios - SEAF, 1986).

The Plan of Public Land Use (PVTP) (Law n° 4.957 of December 30, 1985) established 15 settlement nuclei during 1983-1988, totaling an area of 8,922 hectares and accommodating 539 families. "Sumaré I", an object of this paper, is one of these nuclei. It is noteworthy that around 75 percent of these nuclei were started even before their official sanctioning by the aforementioned law. This was due to the intense mobilization of the landless rural workers in this period. Especially from 1985 onwards, the process of distribution of land was characterized by the strength of the *bóias-frias*[6] movement, which obtained public recognition after 1984.

The old Agrarian Reform Advisory Committee (ARA), that was set up to complement the Law of Agrarian Reform, was converted into the *Instituto de Assuntos Fundiários (IAF)* (Institute for Agrarian Matters) within the Social-Economical Coordination, having, as support, the Institute of Cooperatives and Associations.

In March, 1986, the government formed the *Secretaria de Assuntos Fundiários (SEAF)* (Bureau of Agrarian Matters) aiming at increasing the number of settlements proposed by the PVTP and to attend the *Plano Nacional de Reforma Agrária (PNRA)* (National Planning of Agrarian Reform), that had assigned part of the duties previewed in it to the government of the state of São Paulo. At that time, the Agrarian Reform gained a new institutional decree in São Paulo State; however, it did not last for very long.

Horto Florestal da Boa Vista: Sumaré I

Most of the area of 855.2 hectares called Horto Florestal da Boa Vista in Sumaré--owned by Ferrovias Paulistas S/A (FEPASA) (Railways of the State of São Paulo S/A), 120 kilometers from the city of São Paulo--were designated to two settlement nuclei: Sumaré I (with 338 hectares) and Sumaré II (with 337 hectares). Twenty-six families were selected initially in Sumaré I[7], one of whom was transferred to another nucleus due to serious problems in the site's soils; therefore, there remained a total of 25 families.

The settlement, whose association is named *Programa Agricola de Sumaré I* (The Agricultural Program of Sumaré I), was established in February, 1984, although its story started in the beginning of 1981. It is a story permeated by struggles, pressures, occupations and encampments with the notable presence of clerical members of the Catholic Church.

During this period of struggle, other agents became involved in a direct confrontation with the State, which saw its proposed policy defeated.

The selection process was done by the workers themselves according to the degree of commitment to the struggle for land, measured by the resistance to the precarious initial conditions. The first shelters were made by voluntary teamwork with pieces of wood, corrugated cardboard, plastic sheets, plywood, etc. The nucleus overcame this phase and at the present, the houses, built by the settlers themselves, are made out of brick and with electric installation. A well, shed and sink hole for sewage are communal. The settlers built an elementary school with material given by a religious community, but the teacher and the cook are paid by the State.

Basic crops are cultivated, such as rice, beans, corn and manioc. The last one has been intensively produced in order to supply the flour agroindustry complex. Coffee has also become an important crop in the settlement; besides providing an income, it also guarantees the settlers maintenance on the land.

As established by the program, the land of the settlement belongs to the State. There is an assignment for the use of the land during an unlimited period, depending on the settlers' performance. This has created a situation of legal insecurity for the settlers in relation to the land ownership. However, this fact has not served to discourage them; on the contrary, they stand firm with the objective of owning the sites.

Common Strategies and Objectives of Reproduction

As mentioned before, the formation and establishment of the settlements occurred in different places and periods. In analyzing the stories of the families in each settlement, differences can be detected, but still, strategies

and objectives of reproduction are common to both.

The idea, though, is not to make a comparative study between these nuclei. We premised the study on the idea that the two settlements are "produced social spaces"[8]. Taking this into consideration, the settlements are socially distinguished, so their structures cannot be considered abstract, but should be thought of according to the objective and subjective reality of the social agents involved within; i.e. the settlers, the State, the Church, unions and political parties, etc.

In this way, it is possible to analyze both nuclei together. Although they have differentiated stories, the strategies and common objectives of family "reproduction" and land maintenance should be emphasized.

In Fazenda Capivari, from the 27 settlers interviewed, 21 had been there since the beginning, and six had joined the settlement later (less than three years after its establishment); in Sumaré I, 25 settlers were interviewed, 24 of whom had been there since the beginning of the struggle for land.

In Capivari, 13 settlers presently live with their whole families on the site; the same is true for Sumaré. In Sumaré I, five settlers live alone on their sites. In general, all or part of the family still live on their sites. In some cases in Capivari, the whole family, including married sons and grandchildren, lives on the site. The sons of 20 settlers live in the settlement and in ten of them, all the sons work in town; therefore, the productive activity of the site is in the hands of the sharecroppers. Some sons, although living on the sites, have off-farm jobs but also help in the productive activity, mainly in marketing and accounting. In Sumaré I, only the sons of 11 settlers do not live in the settlement; the majority of them work in town and help to complement the family income.

Since the nuclei Fazenda Capivari preceded Sumaré I, the increase of family members is higher in the former. In both nuclei, the family plays an active role in the production, following an internal work division.

The families in Sumaré I live in "agro-villages" while in Capivari they live on their own sites. The use of the space on the site is structured hierarchically from housing the head of family, his descendants, the sharecroppers to storage. In Sumaré I, the family lives on a small site inside the "agro-village," while the harvest is stored elsewhere.

The majority of the settlers (77 percent) in Fazenda Capivari were previously rural workers, land tenants, sharecroppers, an the like, working in the municipality area, mainly cultivating cotton. However, this is not the case in Sumaré I; there life on the land was interrupted by working in town as industry employees, bricklayers and even being employed on farms.

In the beginning in Fazenda Capivari, all the family worked on the site, except for the small children. This was necessary to keep the contract with the State to meet the requirements, besides providing for the maintenance of the family.

Based on the previous experience of the settlers, the first crop was cotton. Usually the head of the family, with one or two sons, prepared the soil and sowed the cotton. The wife and small children always worked during harvest and sometimes helped in weeding and applying insecticides. The wife, besides her domestic activities, was also responsible for growing vegetables and taking care of a small number of animals.

At first, a common-property tractor was used to prepare the soil. Sowing and sometimes cultivation were done using animal power owned by the individual settler. In the

eighties, this situation repeated itself in Sumaré I.

Provision for the subsistence of the settler demanded the cultivation of rice, beans and corn in Sumaré I. Today there are other crops, including coffee and castor oil plants.

The cotton plantation, though, did not bring solace to the settlers of Capivari. Due to frosts, the harvest caused much frustration, signifying a tremendous failure in the first years of the nucleus activity. The State, that at this time was always present, structured a special credit scheme and a new planting proposal through the São Paulo State Bank. Agricultural research pointed out that the region was favorable for grape and fig plantations. A technician of Agrarian Reform, working with the settlers, demonstrated the advantages and techniques of this fruit production. This change to an unknown activity was a cause for concern for the settlers, but it was overcome by the confidence they had in the technician. This could be felt through the warm and affectionate reception we had when the former accompanied us to the settlement.

This crisis was overcome with a new adjustment of the family nucleus. It would take four years for the results of the new plantations. In spite of the bank credit, which should have supplied the family needs during this period, some family members were sent to town to sell their labor so as to guarantee a reproduction space within the unit.

In Sumaré I, the settlers stated that, depending on the time of the year, their sons or themselves look for other activity in town or on farms to complement the family income. The traditional basic crops for food have not reached much further than the family reproduction.

The family production assumes, as time goes by, specific forms of working the site. The level of the technology adopted can be perceived by the relocation of the family members in the working process. Modern production techniques, exemplified by the use of machinery, pesticides and selected seeds, are present in both settlements. In general, neither the family labor nor the settlement are incompatible with modern technology. On the contrary, modern technology has become a necessary condition for the survival of the family production unit.

A close look at the sites in Capivari settlement takes us to a modern agriculture with adequate soil preparation, irrigation systems, standardization and packing suitable to the international market.

It can be seen that modernization of agricultural techniques deeply affected the family labor organization, modifying its nature, intensity and rhythm. The adoption of a technique can make work less difficult or demand additional complementary activities (Wanderly, 1988). This is the case with the fruit commercialization schemes in Capivari. Sumaré I, with its differentiated story, shows similar signs and could potentially follow the same path. The introduction of an irrigation system demanded a reorganization of the sites which before were individualized. To acquire the necessary implements for bean cultivation, the settlers structured themselves collectively, in this way obtaining high productivity. In Sumaré I, pig raising is also an example that reinforces the settlers' efforts to establish a modern agriculture.

In Sumaré I, a concern about the future was noticed in the family strategies. This preoccupation with, and future commitment to, modernization is demonstrated by their demand for machinery maintenance and agricultural mechanization courses[9] for groups of young people to attend.

Even with their differentiated stories, a permanence on the land and the claim for a better future are present on the settlers' horizon.

Conclusions

First of all, it should be remembered that the Brazilian development policy, in spite of all its contradictions--for example, the fact that this policy was established and expanded amidst the entrance of multinational capital in Brazil--opened new spaces in all productive sectors for modern reforms. The settlements established by the Agrarian Reform, in the beginning of the sixties, should be considered in this context.

The intense care of the State in respect to the requirements for, and the establishment process of, the families in the settlements can clearly be perceived, definitely demonstrating its interventionist practice.

In the second period, the State, hesitant and unable to restrain the determination of the landless, set up the *Plano de Valorização de Terras Públicas* (Plan for Public Laud Use), without offering a framework to guarantee tranquillity or facilities. In Sumaré I, settlers faced an arduous beginning on land without any improvements. Weeds covered the land in the place of the desired crops. Having nothing other than their own resources, as well as the desire and determination to resist, the settlers faced endless hardship. Difficulties have always been constant to those involved in this process, throughout Brazilian history.

However, these productive units have demonstrated their feasibility and their different ways of overcoming hardships. The State, present or absent, lags behind in this process. The struggles, the marches and counter marches entrust these agents to drive the development process forward, by demanding an efficient and precise attitude from the State.

Notes

1. This article is a revised version paper presented at the 8th World Congress for Rural Sociology held in August, 1992 at Pennsylvania State University, Pennsylvania, USA, in the thematic session "Land and the State." It is part of the research entitled: "Analysis and Evaluation of the Agrarian Reform and Settlement Projects in the State of São Paulo" carried out by the Universidade Estadual Paulista.

2. There is a vast collection of papers on family strategies in Brazilian agriculture in Wanderly (1988) and Garcia (1983). For specific references on family strategies in settlements, see the work *Projetos do Estado e Estratégias nos Assentamentos de Reforma Agrária: A fazenda Monet Alegre no Estado de São Paulo*, by Maria Edy F. Chonchol (CRBC/EHESS- Paris/France) and Maria Helena Antuniassi (CERU-SP).

3. The capitalist expansion which benefited the dominant classes instigated a policy of encroachment of the working class. Their consequential reaction was to organize themselves into rural unions and peasant leagues. See Andrade (1986).

4. More details of *Revisão Agrária Paulista* (Agrarian Revision of the State of São Paulo) can be found in Tolentino (1990); Cornejo, et al. (1989); and Bergamasco, et al. (1990). Item II of this paper is based on Cornejo, et al. (1989).

5. In the seventies, 14 million people migrated to urban centers, while in the rural zones, the working population did not change in this or the previous decade.

6. Name given to the rural workers temporarily employed on farms. The name derives from the fact that their lunch is eaten cold in the fields.

7. We are considering the phase of the "definitive" establishment of the settlement. In a previous period it was an emergency settlement in which the area was smaller and the number of families larger.

8. Moares et al. (1992) point out the settlement as "produced social spaces," using the concept of social spaces from P. Bourdieu.

9. This was requested by the settlers to UNICAMP and was undertaken by the Department of Agricultural Engineering at FEAGRI.

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Resumen

Agricultura Familiar, Modernización y Desarrollo Rural en Brasil

Este trabajo argumenta las estrategias familiares y la modernización en los poblados rurales de Brasil como forma de lograr la permanencia de los agricultores en sus tierras. Se analizan dos núcleos de asentamiento en el Estado de São Paulo. El primero fue establecido en los setenta durante el gobierno de Carvalho Pinto. El segundo fue establecido en los 80, como parte de un «Programa Fundiário»--el programa agrario del gobierno de Franco Montoro. La vía seguida por el primero de estos programas nos llevó a reflexionar sobre los procesos de desarrollo de las unidades familiares, basados en tecnologías modernas y con una marcada presencia de políticas estatales. Este es un asentamiento planificado por el Estado, donde los colonos fueron seleccionados según criterios ya existentes. Por tanto, en este caso no hubo luchas por la tierra. Por otra parte, el segundo núcleo muestra una estrategia compleja, dirigida al mantenimiento y reproducción de la familia en la tierra. Por esta razón, estas familias muestran interés en el uso de tecnologías modernas, a pesar de la falta de una actitud precisa y eficiente del Estado. Este ha estado presente en estos establecimientos de asentamiento más bien como respuesta a la lucha de los trabajadores sin tierra, la cual empezó a ganar reconocimiento a principio de los años 80.

***Sonia M. P. P. Bergamasco** es profesora de sociología en la Facultad de Ingeniería Agrícola de UNICAMP en Brasil y ha investigado temas en las áreas de la sociología de la agricultura y de la estructura agrícola.*

Agrarian Transformation and Colonialism: An Historical-Comparative Study of Korea and the Philippines

Seung Woo Park and Gary P. Green

This study compares the development of South Korea, a relatively successful case in East Asia, with the underdevelopment of the Philippines. We examine the internal class dynamics and external world economic forces that shaped capitalist development in Korea and the Philippines. The comparative analysis reveals that the structural transformation in agriculture, and rural class relations, were critical to the divergent paths of development of these two Asian countries.

Seung Woo Park is an assistant professor in the Department of Sociology, Yeungnam University, Republic of Korea. He teaches and conducts research in the areas of the sociology of development and political sociology. **Gary P. Green** is an associate professor in the Department of Rural Sociology, University of Wisconsin, Madison, Wisconsin, US. His research is primarily in the areas of the sociology of agriculture and community development. .

Introduction

In recent years, the regions of East and Southeast Asia have attracted the interests of scholars engaged in the study of development and underdevelopment. Of particular interest have been the newly industrializing countries (the NICs) in East Asia--South Korea, Taiwan, Singapore, and Hong Kong. These countries, known as the "four little dragons," have achieved unprecedented socioeconomic changes leading to industrial capitalism (Berger and Hsiao, 1988; Cheng and Haggard, 1987; Deyo, 1987; White, 1988).

This study compares the development of South Korea, a relatively successful case in East Asia, with the underdevelopment of the Philippines. Several studies have attempted to explain industrial capitalist development in South Korea and underdevelopment in the Philippines. Among the determinants of economic development in South Korea that have been identified are the interventionist role of the strong state (Burmeister, 1986; 1990; Koo, 1987; Rhee, Ross-Larson, and Purcell, 1984), close and dynamic business-government relations, access to adequate foreign capital, and cultural and psychological factors (Kim, 1988). Explanations of underdevelopment in the Philippines include the heterogeneity in racial and cultural composition of the population; socio-political unrest, especially the armed insurgency of Muslim minority groups

in Mindanao and the Sulu archipelago; and the inefficiency and incapacity of government economic policy.

The different patterns of capitalist development in the two countries, however, cannot be explained adequately without taking into consideration the differences in their colonial experiences. In this study we compare agrarian class relations and the agricultural transformation in Korea and the Philippines during the colonial period. Also, this study examines how the external influences (in the form of the socio-economic policy of the colonial state) of two different colonialisms acted differently upon the internal structural changes in both countries. Finally, this work will interpret the impact of these internal colonial social structures upon the post-colonial development of industrial capitalism.

Many social theorists have recently emphasized the role of agriculture and rural structural change in the development of industrial capitalism. They identify several preconditions for industrial capitalist development: (1) the deterioration of the hegemony of the landed class and a concomitant ascendancy of urban bourgeoisie over agrarian interests (Mouzelis, 1976); (2) the dispossession of the peasantry of the lands and the formation of an urban industrial labor force (de Janvry, 1981); (3) the transfer of agricultural surplus to industry (Vergopoulos, 1978); (4) the creation of home markets in the countryside for industrial consumer goods (McMichael, 1977); and (5) the establishment of capitalistic class relations in the agricultural sector (de Janvry, 1980).

Others have suggested that national agricultural development and internal rural structural changes must be understood in the context of the global accumulation process and the external impact of international relations of production and consumption upon the national agrarian transformation (Freedmann, 1978; 1982; Friedmann and McMichael, 1989; McMichael, 1980; 1987; Wallerstein, 1974). For example, in his study of the capital accumulation process of Australia in the mid-nineteenth century, McMichael (1980) shows that the impact of world-economic forces in the forms of the British capital and its state policy greatly shaped the local class relations (and the form of class conflict) of settler Australia and, in turn, influenced the path of its capitalist development. In a similar vein, in his study of Mexican agriculture, Sanderson (1986:6) argues that "the transformation of Mexican agriculture is a product of a systemic internationalization of capital in agriculture and the long-term creation of a new global division of labor." He adds that "the shape of agriculture in the Americas is, to some great extent, dictated at the international level, in sales, procurement, technological inputs, cropping, and processing agricultural raw materials" (Sanderson, 1985:46). The externalist position is particularly evident today among researchers examining the effects of global economic restructuring on national and regional economies.

The present study integrates both the internalist and externalist positions. As Roxborough (1979:26) remarks, "purely exogenously determined models of change are as inadequate as the purely endogenous models" (see also Cardoso and Faletto, 1979:xvi). Koo (1984:42) argues that the internal class structure, deeply rooted in local history, is primarily responsible for divergent patterns of development among nations, and this internal class structure should be approached "from two angles, from the internal historical perspective and the world system perspective, because the present class structure is a joint product of the two forces."

American Colonial Policy in the Philippines

The half century of American colonial rule in the Philippine Islands is characterized by

the wide latitude of political autonomy by local Filipinos and the preferential "free-trade" relations between the colony and the US The prominent feature of American colonial policy was an emphasis on self-government and local autonomy of the colonial people. The US emphasis on the concessions of political participation and the progressive transfer of political power to Filipino political elites can be attributed to basically two factors. America's Philippine policy was based on the anti-retentionist principle. Second, the political aspirations of the indigenous Filipino elites for self-government was so high as to significantly affect the overall framework of US colonial policy.

America's acquisition of the Philippines in 1898 was not part of a well-conceived plan, but a contingent and even an unwelcome consequence of the Spanish-American War (Fieldhouse, 1966; Halle, 1985). The US had not prepared for its colonial rule over the Philippines before the war broke out, and even after its occupation of the Islands the US government was divided internally over its Philippine policy. In the first decade of American colonial rule in the Philippines a policy debate on what to do with the new colony developed within the US government between two opposing camps. The retentionists saw the Philippines as a base from which to extend US influence and commerce in the Far East, and especially to China, and asserted that the Philippine Islands should be kept under the US sovereignty permanently. Anti-retentionists opposed direct involvement in the colony. From the second decade of its colonial rule, the anti-retentionists gained ascendancy in American foreign policy-making (Jenkins, 1954:31-33). Instead of retaining the Islands for an undesirably long period, the US decided to grant the Philippines full independence in due course. In the meantime, during the transitional period before the full political independence, it was decided that the Filipino people should be allowed more opportunities for political participation and self-government.

It was necessary for American policymakers to recognize the political aspirations of the upper-class Filipino elites because their collaboration was essential to the successful colonial management of the Philippine Islands. Toward the end of the Spanish rule, the aspiration of the indigenous political elites for self-government and, ultimately, for complete political independence, had reached its highest point. Armed revolts erupted against the Spanish authorities during the last years of the nineteenth century and, again later, against the newly arriving American colonials. The Filipino revolt against the Americans was led by the upper-class Filipino landed elites. Faced with this challenge, American policymakers sought to draw them into American colonial rule as quickly as possible and to win back their confidence. After the Filipino resistance had been subdued by the American forces in 1899, it became the urgent task of the American colonial government to meet the political aspirations of the Filipino upper-class elites.

The American policy toward Filipino self-government was prominent in the second decade of the colonial rule under Governor-General Harrison (1913-1921), which was known as the "Filipinization" era. In 1916, the Philippine Commission, which was composed of both Americans and Filipinos and had until then worked as the chief executive and upper legislative body, was abolished in accordance with the Jones Law. Its legislative functions were taken over by the newly-created Senate, which was popularly elected and consisted wholly of Filipino elites. The National Assembly, the lower house of the legislature created in 1907, had also been composed exclusively of Filipino members. In the central colonial administration, many ranking American officials were replaced by Filipinos and low-

level administrative positions were also gradually filled by the colonial people. During the Harrison regime the number of Americans in the colonial administration declined from 2,623 to 614, the proportion of Americans to total officials declining from 29 percent to 4 percent (Hayden, 1942:96-97).

Filipino self-government was more extensive and developed more rapidly at the local level than at the national level. From the outset of the American colonial rule, the municipal government's officials were elected by popular vote (Barrows, 1914; Friend, 1965; Grossholtz, 1964). The provincial governments also were by and large controlled by the local Filipino political elites. The provincial governor had, from the beginning, always been a Filipino. He was elected every two years by the municipal councilors of the province, and from 1907, by popular vote (Hayden, 1942:261-89). The American colonial policy of "Filipinization" culminated in the establishment of the Commonwealth government in 1936. From that time on, until the full political independence in 1946, the indigenous Filipino elites exercised practically total control over their own political institutions and policy-making processes.

The essence of the economic relationship between the US and the Philippines during the half century of colonial rule was the "free trade" or "preferential trade" policy of the US government. It was designed to facilitate the provision of primary agricultural products and raw materials for American consumers in stable and favorable terms and to develop the colony as a market for US manufactured consumer goods. This free trade regime was initiated by the US Tariff Act of 1909 (known as Payne-Aldrich Tariff Act) and the parallel Philippine Tariff Act of 1909, and was enhanced by the Underwood-Simmons Tariff Act of 1913 (Golay, 1983; Jenkins, 1954). They were the foundation of the mutual duty-free trade between the Philippines and the US in the prewar era.

Agrarian Elites in the Colonial Philippines

A prominent feature of Philippine society under the American colonial regime was the dominance and virtual monopoly of the local landed elites in both municipal and provincial politics and government. It was large landlords, merchants and processors of agricultural products, money-lenders, and their professional associates, whose economic interests were vested in land ownership and agricultural undertakings, that exercised practically total monopoly over local politics and government. And, local politics and governments were what affected most the indigenous people in the countryside (Hayden, 1942:261-89; Lande, 1965).

The local agrarian elites' dominance of local politics and government can be traced to the Spanish colonial regime. Under the Spanish regime, the prominent members of the local landed class, called *principales*, monopolized the municipal politics and government, filling every post of municipal mayor or *gobernadorcillo* (Larkin, 1982; Pelzer, 1945; Phelan, 1959). When the American colonials replaced the Spaniards and their policy of local autonomy and self-government was instituted, the members of this *principalia*, owing to the restrictions on the franchise and their dominance over the peasantry, were able to retain their control over local politics and government. As Hayden (1942:261) notes, every barrio (village), municipality and province became the arena in which prominent local political leaders and families fought for power, and practically every voter became a partisan of one or the other faction of the leading landed elites.

Municipal governments under American

colonialism consisted usually of the mayor (called the *presidente*), the vice mayor, the municipal council, the secretary, and the treasurer. The mayor, the vice mayor and the council members were elected directly every two years by the voters under a limited franchise (Hayden, 1942:267, 285). All positions in the municipal government were monopolized by the local landed elites and their family members. Provincial governments were also dominated by the members of the ruling landed class in the province. They were the large landlords, who owned big estates that were scattered across the province and extended over a number of municipalities. They were often called *local barons* and known nationwide.

The dominance of agrarian elites in local politics and government was in one way secured by the restrictions of the franchise. The property and literacy qualifications for voting made the electorate to comprise only a small number of local elites (Grossholtz, 1964; Hayden, 1942). According to Hayden (1942:267), the legitimate voters in the local elections during the early colonial years was only about two percent of total inhabitants. Although the restrictions were gradually relaxed and the suffrage was broadened in the following decades, the proportion of the qualified voters to total population seldom exceeded one-tenth of total population (Landé, 1965:28-29).

The municipal and provincial politics and local political elites were the building blocks of the national politics and political parties (Landé, 1965). National political leaders were recruited from the pool of local agrarian-based political elites. With regard to the dominance of the landed elites and their legal associate professionals in the National Assembly, Sturtevant (1976:49) reports that "in 1923 only eight of ninety-three members in the House of Representatives were not classed as landowners or lawyers, [while] in 1938 the ratio in the National Assembly was sixteen out of ninety-eight" (citing from Stephens, 1950:149). Most of the members of the National Assembly, and later, of the Senate and the House had formerly held the offices of provincial governors, municipal mayors, or sat on provincial boards (Hayden, 1942:284, 287). The principal feature of the Philippine political party system also was the fact that power in the parties was widely dispersed and remained in the hands of local landed elites and their political factions, who were almost wholly independent of the national party hierarchy (Landé, 1965:1-24).

Development of Commercial Agriculture in the Philippines

The political dominance of the Philippine agrarian elites and the US colonial policy of free trade led to the development of export-oriented commercial agriculture in the Philippines during the American period. This development helped Filipino agrarian elites to retain and reinforce their economic privileges and socio-political power, which impeded the industrial development in colonial Philippines.

The free-trade regime between the Philippines and the US was a direct result of the foreign trade policy of the US government, but to a large extent it also can be credited to the enthusiastic support of this policy by Filipino agrarian elites in national politics. From the beginning of the American rule, the indigenous agrarian elites favored the free-trade relations with the US and sought to promote commercial agriculture. Although the indigenous Philippine elites had strongly advocated the political independence of their country, it had always been held as a lower priority than the maintenance and promotion of their own economic interests.

Free-trade relations with the US--allowing

Philippine agricultural products to enter the US market duty-free--"gave a strong impetus to an export trade in selected agricultural products" (Wernstedt and Spencer, 1967:181). Within less than half a century, coconut exports skyrocketed fiftyfold and sugar exports increased eightfold, while the exports of abaca and tobacco doubled (Census of the Philippines, 1903; Jenkins, 1954:172; Legarda, 1955:197-222; Owen, 1971, 1984). The US policy of free trade and the consequent expansion of agricultural exports produced a favorable climate for the development of commercial agriculture for most crops in the Philippine archipelago. Increasing demand in the world market prompted a rapid expansion in the cultivation of such export crops as coconut, sugar, abaca and tobacco. These four crops accounted for approximately 90 percent of total export value through the entire American period. As a result, "[s]ugar, copra and abaca yields rose almost geometrically in an effort to meet the American market's seemingly insatiable demands" (Sturtevant, 1976:50). Sugar production, for example, increased from 135,000 metric tons in 1920 to 1,450,000 metric tons in 1934 (Sturtevant, 1976:50).

Another chief characteristic of Philippine agriculture was regional specialization of agricultural production. Sugar was produced in the Western Visayas, abaca in the Bikol Peninsula, tobacco in the Cagayan Valley, rice and sugar in Tagalog provinces and Pampanga, and rice in the Central Luzon Plain. The regional specialization of agricultural production was also one of the factors behind the strength of regionally-based agrarian elites. As McCoy (1982:8) demonstrates, this regionalization of the Philippine agrarian economy, functioning as strong centrifugal forces, "developed a series of distinct regional elites with divergent, if not conflicting, economic interests." These regional elites had been working against the formation of a strong nation state in the Philippines.

In sum, during the American colonial period, the Philippine agrarian elites continued to dominate local politics and government and rural class relations. They utilized the US colonial policy which allowed the colonized much latitude in political participation and self-government to consolidate and reinforce their political hegemony. As a result, they were able to expand their influence from municipal and provincial politics to national politics. By employing their increased political hegemony, the Filipino agrarian elites managed to buttress the free-trade regime operated with the US Preferential trade, prompting agricultural exports, enabled them to augment their economic positions. The free-trade regime allowed the free entry of US manufactured cousumer goods into the Philippines, significantly retarding the development of any indigenous import-substitution manufacturing industry.

The Japanese Colonial State in Korea

Japanese colonialism can be distinguished from that of the Western colonial powers in several aspects. Japan initiated its colonization campaign much later than did the Western colonial powers. The relative lateness of the Japanese colonial experience led to a distinctive feature of Japanese colonialism--the proximity of its colonies. The lateness of Japan's colonialism did not allow it to colonize far-distant territories, and left it only its neighbors in Northeast Asia (Cumings, 1981:7-8; 1984a; 1984b; Peattie, 1984). The territorial contiguity of the Japanese empire facilitated "a close, tight integration of colony to metropole" (Cumings, 1984a:10). From the inception of their colonial adventure, the Japanese colonials started their aggression against Korea with a view to incorporating Korean peninsula fully into their territory,

rather than operating it as their overseas colony (Peattie, 1984; see also Nakamura, 1974:350). A total integration of Korea and its economy into the metropole made necessary a strong colonial state in Korea (Cumings, 1984b).

The strength of the colonial state in Korea can also be attributed to the strength of the Japanese state at home (Cumings, 1981:8-12; Peattie, 1984). The Japanese state during the late nineteenth century can best be characterized by the term *étatisme*--the superiority of the state over the civil society. The state-centered tradition of the Japanese state was a feature of the Meiji reformatory rule (Peattie, 1984:23-24). Later, the same attitude, strategies, and framework used by the early Meiji leaders in their own state-building were applied to Japan's colonial state in Korea.

The Japanese colonial state in Korea had a well-organized and powerful state bureaucracy, with the governor-general at the top of its hierarchy (see Cumings, 1981:xxii; Government-General of Chosen, 1938; Grajdanzev, 1944). It was extremely centralized, with the power concentrated on the central government-general in Seoul. The governor-general possessed immense power, including legislative and, to a certain extent, judicial power. He was authorized to issue decrees, statutes, and regulations which affected every aspect of the life of the colonial populace. He could appoint judges and imprison anyone for as long as one year without trial. He also directly supervised all provincial and municipal governments. They were not local governments in a strict sense of the term, but only the local branch offices of the central government-general. The governor-general appointed all the governors of thirteen provinces, the district magistrates, and the municipal mayors. The almost unlimited administrative power of the governor-general led one contemporary observer to note that "in Korea the Governor-General is virtually an absolute monarch" (Grajdanzev, 1944:238).

In sharp contrast to the American colonial state in the Philippines, the Japanese colonial state apparatus, both central and local, was completely monopolized by the Japanese colonizers. Japanese occupied all important positions of the central government-general. Koreans were allowed to occupy only minor positions, such as clerks and secretaries (see e.g. Chosen Nenkan, 1941, cited in Grajdanzev, 1944:60, 243). The Japanese also dominated all the provincial governorships and other lower-ranking posts in the provincial and municipal administrations (Grajdanzev, 1944:46-60, 247-48).

In contrast to the Filipino people under American colonialism, the indigenous population of Korea were not granted the right of suffrage, nor the right to participate in the political decisions--neither in the form of central legislature nor in the form of local self-government. If any such mechanisms for popular representation existed in colonial Korea, they were mere formalities and propagandistic arrangements. Upon the annexation of Korea, the Japanese colonial government created *Chusuin* or Central Council, an advisory body to the governor-general composed of some prominent members of the old Korean government and Korean industrialists or bankers closely connected with the Japanese businesses. But, unlike the Philippine Assembly under the American regime, it was merely a cosmetic organ. It did "not possess an iota of real authority" and there was "not one member in it who can be considered a representative of popular Korean interests." All the council members were chosen by the governor-general and consulted mainly on "matters of customs and beliefs" (Grajdanzev, 1944:46, 244-49).

Japanese Colonial Policy and the Korean Economy

Through its annexation of the Korean peninsula in 1910, Japan established a vast

colonial empire in East Asia that stretched from Karafuto (South Sakhalin) to Formosa. The use of these colonies as an economic hinterland produced an impetus to Japanese industrialization, which had already "taken off" during the last decade of the nineteenth century. As Japan rapidly expanded its urban industrial sector, the demand of its urbanized population for wage goods increased. Concurrently, the role of its colonies grew as source of agricultural foodstuffs and as a market for Japan's industrial goods (Ho, 1984:348-50; Peattie, 1984; Suh, 1978:7-8).

The First Colonial Period (1910-1920)

Japanese colonial policy during the first decade of the colonial regime was directed towards laying firm bases--socio-economic as well as political--for colonial rule. Immediately following the annexation of Korea, Japan succeeded in building a strong state bureaucracy and firmly grounded its political ruling system. With this highly articulated political and administrative apparatus as its operational machine, the Japanese colonial state implemented a number of socio-economic reform policies: various institutional reforms, construction of economic infrastructures, and the cadastral survey.

The monetary system was reformed and integrated into the Japanese system, and Japanese currency was gradually substituted for Korean money. A modern banking system was introduced and many branch offices of Japanese banks were established nationwide. The fiscal system was also transformed; tax payments of cash took the place of payments in kind (Government-General of Chosen, 1921; Suh, 1978:5). This set of reform policies was intended to provide the necessary conditions for the total integration of the Korean economy into Japan's, inserting Korea into the orbit of the Japanese imperialist economic system. It facilitated the trade between the colony and the metropole, which had already been swelling rapidly since the Kanghwa Treaty in 1876. Korea was gradually changed from a natural economy to an exchange economy; its market economy expanded and its exchange relations grew.

Of critical importance to the Japanese colonial government was the cadastral survey undertaken from 1910 to 1918. Allegedly, this survey was conducted to determine the formal ownership status, size, and value of all land in the colony so as to establish a modern private land ownership system and to secure accurate data on agricultural production. The underlying intent, however, was to establish a stable rice supply base for the metropole, to enable Japanese individual settlers and corporations to acquire agricultural land in Korea, and to expand the state revenue base through better taxation (Lee, 1936:102, 105; Suh, 1978:16).

The cadastral survey had far-reaching consequences. It dispossessed many Korean landowners--both small owner-cultivators and large landlords--of the land their ancestors had tilled for centuries. They lost their farms simply because they failed to register their lands. Their land was then taken over by the colonial government. The land survey discovered large areas of land with unclear title of ownership. It was also confiscated by the colonial state, together with all the village common land and forests and the royal lands (Hamilton, 1986; Kim and Roemer, 1979; Lee, 1936). As a consequence, about 358 thousand *cho* (1 *cho* = 0.99 hectares = 2.45 acres) of arable land, which accounted for over 14.5 percent of the total arable land in Korea, and 9,256 thousand *cho* of forest land--58 percent of the total forest area--were taken by the colonial government (Government-General of Chosen, 1921:106; Kim and Roemer, 1979:3). Most of the land seized in this manner by the colonial government was gradually sold to Japanese settlers and corporations including

the Oriental Development Company at low prices.

The Second Colonial Period (1921-1930)

World War I produced an unprecedented industrial boom in Japan. Industrial expansion during the war years, coupled with a rapid increase in population and a slower growth of agricultural production, reinforced the already strong demand for agricultural foodstuffs. Agricultural prices rose sharply as rice shortages developed, which led to the Rice Riot of 1918 in major Japanese cities. Thus, Japan looked increasingly to her colonies for production of food grains; the role of Korea as an "agricultural appendage of Japan" was reinforced. Rapid capital accumulation during the war boom left Japan with a capital surplus, compelling Japan to seek an outlet for its abundant capital (Ho, 1984:349-50; Suh, 1978:11).

The changes that occurred in the late 1910s prompted the Japanese colonial government in Korea to reformulate its economic policy in the colony during the 1920s. It carefully accommodated its policies to the changing conditions of the world economy and to the changing political and economic needs of Japan. The acute rice shortage in Japan led the colonial government to increase agricultural production and exports in the colony (Amsden, 1989:53; Duus, 1984; Grajdanzev, 1944:92). Its industrial policy also underwent major changes. Among the most important changes was the removal of restrictions on industrial investment. The repeal of the Corporation Law in 1920 allowed Japanese capital to flow rapidly into the colony (Hamilton, 1986:14; Hatada, 1969:18; Suh, 1978:11-12).

From 1920 on, the colonial government launched a variety of programs for increasing rice production, such as large-scale land reclamation projects, a nationwide organization of irrigation associations, improvements in irrigation and farming methods, and financial subsidies and technical assistance to farmers. It instituted the "land amelioration project," under which large-scale land reclamation and irrigation programs were conducted. Landlords and farmers were mobilized and organized into "irrigation associations" across the nation. These associations were given financial subsidies by the government and government-controlled banks. The government encouraged and often forced, when necessary, Korean farmers and landlords to adopt modern farming practices, such as improved cultivation methods, intensive application of manures and fertilizers, increased planting of new varieties of rice seeds, and up-to-date farm improvements (Lee, 1936:57-58, 118-31). In implementing these policies, the Japanese government-general fully utilized its far-reaching state machinery (police force, agricultural extension services, and local administrative network). The colonial government did not hesitate to employ coercive means to improve rice production (Lee, 1936:129). Korean farmers and landlords alike were forced to expend painstaking efforts on agricultural production, especially rice production.

As a result of the vigorous "agriculture drive," rice yields increased steadily during the period. The annual volume of rice production increased from an average yield of 11 million *koku* during 1910-12 to an average yield of 16.3 million *koku* during 1929-31 (compiled from data given in Grajdanzev [1944:295-97] and Suh [1978:20, 188]). Exports of agricultural foodstuffs (mostly rice) expanded tremendously during the 1920s, along with the exports of other primary goods (industrial raw materials). The value of total agricultural crops exported rose from a mere 9 million yen in 1915, to over 114 million yen in 1920, and to around 222 million yen in 1925 (Park, 1991:161; see also Suh, 1978:178). The proportion of rice exports to total rice yield also

increased remarkably. In the first decade of colonization, less than one-tenth of the total rice yield was exported to Japan, whereas at the end of the second decade almost half the nation's total rice yield crossed the Korea Strait (Park, 1991:162).

The abolition of the Corporation Law in 1920 provided a positive environment for the development of industry. Many Japanese industrialists opened factories in Korea, but they were only "small scale industries working on local raw materials" such as canned goods, sugar, silk, and the distilling and brewing of alcoholic beverages (Takahashi, 1935:349-50; quoted in Grajdanzev, 1944:69). Even this limited industrial development was slanted toward the Japanese. Old handicraft and cottage industries, mostly operated by indigenous Koreans, were "swept away" by the introduction of the modern Japanese factory system. Korean manufacturers could not compete with Japanese manufacturers, which were assisted by the government in terms of regulations and financial subsidies. Japanese-controlled financial institutions made loans almost exclusively to Japanese firms. In 1928, Japanese manufacturing enterprises controlled 92.5 percent of the total capital investment in the manufacturing sector and employed two-thirds of the total manufacturing industry employees (Lee, 1936:31-35).

Japanese colonial policy encouraged agricultural production and rice exports, the dominance of industry by the Japanese, and the discrimination against Korean entrepreneurs. During the first two decades under the Japanese regime, the Korean landlords and farmers were goaded into making every effort to expand agricultural production. However, the falling price of rice during the latter half of the 1920s placed the Korean farming population in an awkward position. The price of rice dropped from over 30 yen per *koku* in 1922 to 16.2 yen per *koku* nine years later. The falling price of rice deepened the indebtedness of farmers and reduced the profits of landlords and farmers (Hishimoto, 1938, cited by Grajdanzev, 1944:293; Lee, 1936:127-29).

The sudden change in the colonial economic policy further aggravated this situation. Toward the end of the 1920s, Japan began to suffer from the overproduction of rice in her colonies--in Korea and Formosa. Japanese farmers, who had been agitated by the flooding of Formosan and Korean rice, put strong pressure on the Japanese government. Thus, at the beginning of the 1930s, the government-general in Korea canceled all plans for increasing rice production in Korea and shifted its policy focus to industrial development (Grajdanzev, 1944:92-93; Lee, 1936:131). This presented a serious blow to the rural economy in Korea. Korean landlords, as well as peasant farmers, were greatly damaged by this abrupt policy change.

The Third Colonial Period (1931-1945)

The world-wide economic depression which had begun in 1929 struck the Japanese economy hard. High protectionist barriers throughout the world prompted Japan to abandon its free trade policies of the 1920s and to pursue the establishment of a self-sufficient economy within the empire. Economic self-sufficiency required a diversification of its industries at home (and a build-up of heavy industries such as steel, chemicals, and armaments); their relocation to the colonies (thus, a new division of labor within the empire, between the colonies and the metropole); and development of industrial raw materials in the colonies to diminish reliance on imports from outside the Yen Bloc (Cumings, 1984a:12; 1984b:488-89; Hamilton, 1986:13; Ho, 1984; Suh, 1978:12). With the emergence of protectionism, Japan changed its state policy from liberalism to authoritarian militarism. The defense strategy of Japan was tied to its offensive

territorial expansion in the form of "concentric circles radiating from the home islands" (Peattie, 1984:8). Japan launched a series of military campaigns in the early 1930s. In 1932, following deliberate military provocations in the previous year, the vast area of Manchuria was taken by the Japanese and a puppet government of "Manchukuo" was set up. This incident prompted Japanese re-militarization, and leading militarists again took command of the Japanese government (Han, 1970:493; Suh, 1978:12).

Incorporation of Manchuria into the Japanese empire made Korea strategically important. Korea, located between Japan and Manchuria, was an ideal place for Japan's industrial relocation project, with Manchuria supplying both food staples and abundant industrial raw materials for Korean industry. Korea increasingly played a semi-peripheral role between the peripheral Manchuria and the core Japan in the 1930s (Cumings, 1984a). Moreover, Korea was also rich in mineral resources, hydroelectric power, and cheap labor (Peattie, 1984:33; Suh, 1978:13).

Thus, from the early 1930s Korea was forced to provide industrial producer goods (intermediate products such as petro-chemicals and metals) for Japan's heavy industry (especially the munitions industry). It also had to accommodate the over-developed industry of Japan in order to ease the tensions of the metropolitan economy. Massive state investments and financial subsidies were expended in a strong industrialization drive, especially in war-related heavy and chemical industries. The colonial government also used favorable government regulations, tax preferences, and other administrative support to encourage Japanese capitalists to invest in the colony. It also fostered the development of electric power and mineral resources which were necessary for industrial development. Moreover, the colonial government itself took part in the industrialization drive through semi-statal enterprises and government monopolies (Chang, 1971:76-77; Ho, 1984; Peattie, 1984).

In 1937, Japan's continuous penetration of China since the Manchurian incident culminated in a full-scale war, the Sino-Japanese War. Growing military needs required the rapid expansion of heavy and chemical industries in the colony as well as in the metropole. Korea was pressed hard to play the role of an "economic supply base for the military adventures on the continent" (*Tairiku heitan kichi*) (Grajdanzev, 1944:135; Suh, 1978:12-13). The colonial government doubled its efforts to promote heavy and chemical industry in Korea in order to provide military supplies for the Japanese armies in China. The trends toward war-related heavy and chemical industrial development continued until the end of the colonial period.

Backed up by the colonial state policies, manufacturing and mining industries in Korea experienced a significant growth during the 1930s. The total net value added in manufacturing production (at 1936 constant prices) rose two-and-a-half times, from an average of 127 million yen during 1929-31 to an average of 319 million yen in 1938-40 (Suh, 1978:171). The number of modern manufacturing factories and of industrial employees increased rapidly during this period. Industrial employment rose from less than 100,000 persons before 1930 to about 270,000 persons by the end of 1930s and to 550,000 persons in 1943 (Park, 1991:176).

Changes in the manufacturing sector, however, occurred not as a consequence of an autonomous and indigenous development of domestic industrial capital. Rather, these changes were externally imposed to meet the requirements of Japanese imperialist development and war preparation. As a result, Japanese interests held a monopolistic position in the colonial industry. Large-scale factories in

war-related heavy and chemical industries dominated colonial economy[1] and they were mostly the subsidiaries of the famous Japanese *zaibatsu* concerns, such as Mitsui, Mitsubishi, Sumitomo, Yasuda, and Noguchi (Grajdanzev, 1944:152; Lim, 1985:41). The indigenous Korean entrepreneurs were largely excluded from heavy and chemical industries and restricted to small-scale light industries. All Korean-owned enterprises were small in scale and weak in capital formation.[2] They were excluded from financial subsidies (either from the colonial government or from the Japanese-controlled financial institutions) and administrative support. Also, the colonial government, which controlled the supply of raw materials and intermediate producer goods, discriminated against Korean manufacturers in their supply (Grajdanzev, 1944:148-84; Hamilton, 1986:14-15). Many small and medium-scale Korean enterprises, "faced by a shortage of intermediate goods and by the government controls on production in the early 1940s, were forced to close" (Kim and Roemer, 1979:6).

The industrial development during the third period also had one significant implication. It contributed to the formation of the industrial work force. The urbanization and industrialization during the 1930s and the early 1940s provided employment opportunities for the landless rural laborers and poor peasants, enticing potential industrial workers from the countryside. In conjunction with the dwindling personal dependency ties between the landlords and peasant farmers in the rural sector, urban and industrial development in this period contributed greatly to the gradual disintegration of existing rural social relations. These changes led to the massive rural outmigration in the later years of the colonial period and ultimately to the formation of an industrial working class (see Mason et al., 1980:74-82).

In conclusion, during the Japanese period, the indigenous Korean landlords were unable to exercise any significant amount of political influence and were not allowed to participate in colonial administration and political processes. Their political weakness is in sharp contrast to the strength of Filipino agrarian elites. In addition to their political incapacity, they were economically weak. It was not the indigenous Korean landed class but the Japanese landlords and agricultural corporations that controlled colonial agriculture in Korea. Japanese landlords were in a much more advantageous position with regard to the capital than were the indigenous landlords. They were readily supported by the colonial government and by the Japanese-controlled banks. Korean landlords had "less capital and thus, in general, less land and smaller capital investments in their land" (Cumings, 1981:47). Japanese dominance over the agricultural land was especially prominent in large-scale farms (Park, 1991:204).

The colonial policy changes in the 1930s and the early 1940s that emphasized industrial development and war-related mobilization of economic and human resources in the rural sector prompted a handful of Korean landlords to divert agricultural surpluses and invest them in commerce and light industries. The transfer of indigenous agricultural capital to the commercial and industrial capital, and the conversion of some local landlords to industrial and merchant capitalists would help them prolong their economic positions and retain their economic interests. The long-term effect of these personal metamorphoses, however, was to further reduce the power base of the Korean landed class in general. Moreover, those landlord-turned-industrialists could not survive in the discriminatory environment of the colonial industrial development.[3]

Korea and the Philippines in the Postwar Era

Different patterns of structural transformation in colonial agriculture in the Philippines and Korea--differences in terms of the landed class hegemony and the formation of free-labor (the potential industrial workforce)--brought about different consequences in postwar industrial development. In the Philippines, the hegemony of the prewar agrarian elites was reinstated after World War II (after a short period of the Japanese occupation) and the new order was formulated upon the continuation of the status quo ante. In Korea, the landlords class failed to take any significant part in the newly created Republic.

Restoration of the prewar social and political order in the Philippines was undertaken at two different levels. In national politics, the prewar political oligarchy, which had represented enthusiastically the landed interests of the local agrarian elites during the American period, returned to power after the war with the help of the American military authorities. The American government sought to draw the postwar Philippine political leadership from the old oligarchy and wartime collaborators simply because it was unable to find elsewhere any politically capable groups who could lead the newly inaugurated Republic (Abaya, 1946; Shalom, 1981:1-32; Steinberg, 1967).

In a similar fashion, the old landlords in the countryside also regained their prewar socio-political hegemony. This feat was accomplished through the joint military campaign of the US military forces and the Philippine constabulary to suppress the insurgency elements in the countryside. The peasants in Central Luzon, who had become highly politicized by socialists during the 1930s, organized during the Japanese occupation an anti-Japanese guerrilla organization, called the *Hukbalahap* (or the *Huk* in short). It was founded in March 1942 with the purpose of (1) resisting the Japanese and the Japanese-backed puppet regime; and (2) eliminating the landlord domination in the countryside. During the war years between 1941-1945, the Huk assumed control of the peasant farmers in Central Luzon through its wide mass base and its disciplined and determined political and military organizations. When the American forces and Philippine government troops returned after the war, they launched a series of massive anti-Huk campaigns in a joint military operation. The US did not intend to leave any room for the communist elements to gain political influence in the rural areas. Instead, the US chose to win the support of more conservative and cooperative regional landed elites by invigorating them. The Huk rebellion, which had gained significant influence in Central Luzon during the late 1940s and the early 1950s, was practically subdued by the mid-1950s. The pacification of the countryside enabled the old local landlords to return to their farmland and resume their dominance there.

In contrast to the Philippines, the political vacuum created by the flight of Japanese in August 1945 after their defeat in the Pacific War was not filled by the landed class. It was because its political power had been seriously deteriorated and its economic base shrunk significantly. Korean landlords were unable to politically mobilize and organize themselves at the time of liberation. Instead, together with the returned cadre of anti-Japanese independence movement leaders (e.g., Syngman Rhee) at the top of the state apparatus, the handful of Korean bureaucrats, policemen, and army officers who had served the Japanese colonizers came to play an increasingly significant role in Korean politics and administration under the American tutelage (1945-1948), ultimately filling the political vacuum left by Japanese. The establishment of new political order along this pattern was carried on under the consent and guidance of the US Military Government.

The lack of political power, on the other hand, cost the landlords class the implementation of land reform.[4]

Land Reform

Land reform in a number of East and Southeast Asian countries in the postwar era was implemented to increase agricultural productivity and farm income through land improvement, development and diffusion of new agricultural technology, new seeds, and new farming methods. More importantly, it was anticipated that equity in land ownership and in the distribution of agricultural surplus would be achieved through land redistribution programs, improvement in tenancy system and practice, and/or the establishment of owner-operators (see de Janvry, 1984; Dorner, 1972; Dorner and Kanel, 1979; Ghatak and Ingersent, 1984:217-27). The long-term consequence of land reform--the formation of "home market"--was also important. It was assumed that success in land reform would lead to an increase in rural farm income and the purchasing power of the rural sector, which would act as a strong demand for industrial consumer goods. Therefore, a successful land reform program was indispensable to the development of industrial capitalism in the newly independent countries.

In the Philippines, the resistance of the landed class and the unwillingness of the Philippine government--especially the legislature--blocked the success of agrarian reform programs. They were implemented not as part of fundamental socio-structural reform but as a "patch-up" measure to alleviate rural unrest and to resolve insurgency. Neither the US government nor the Philippine government intended to change fundamentally the basic social relations in the countryside. Using economic aid as an incentive, the US government pressured the Philippine government to initiate agrarian reform programs, which it felt were necessary to the rehabilitation of the devastated Philippine economy. The Philippine government, however, was quite reluctant to play its part.

After the Huk rebellion had been put down and the intensity of rural grievances alleviated, the first serious attempt at the agrarian reform was proposed by the Magsaysay administration (1954-57). Its reform program had two objectives: (1) the improvement of existing tenancy system and practice; and (2) an extensive redistribution of farm land. But the Land Reform Act of 1955 itself was, due to the organized opposition by local landlords, little improvement over existing legislation. Under the pressure of local landed elites and the National Assembly, officials in the administration and in the reform agencies (e.g., Land Tenure Administration, the Court of Agrarian Relations) were reluctant to execute the program fully and often exerted their influence to block its implementation (Starner, 1961:187). As Murray (1972:158) states, "Magsaysay was able to get a bill through Congress . . . but he was unable to implement it."

Another agrarian reform effort followed in the early 1960s. The Macapagal administration (1962-65) attempted to establish owner-operators and medium-sized family farms as the basis of Philippine agriculture. However, this reform effort was also a disappointment. The landlord-controlled Congress subjected the land reform bill proposed by the administration to two hundred amendments so that the new Land Reform Code (of 1963) became, like the 1955 Land Tenure Act, riddled with legal loopholes favorable to the landlords. Furthermore, both regional land reform committees and local land reform project teams, the institutional tools which were supposed to carry out the reform program, were practically under the control of local landed elites and operated so as to favor landlord interests. Thus, successive agrarian reform efforts in the Phil-

ippines during the 1950s and the early 1960s ended in failure. The stubborn resistance of local landed elites and their representatives in Congress, as well as the unwillingness of the Philippine government to implement the reform program, caused both efforts to fail.

In contrast, the success of the land reform program in Korea was due largely to the absence of any significant opposition. Landlords were opposed to it, but their influence upon the national government and legislature was minimal. The consensus both inside and outside of the government was that land reform was necessary, and the debate in the National Assembly only concerned the extent of the reform and the methods to be employed.

The role played by the US, either directly through the US Military Government (1945-48) or indirectly (after 1948), was also important for the success of Korean land reform. First of all, the US government strongly encouraged land reform to ease rural discontent and prevent any radical element from getting the upper hand in the countryside. Granting farmlands to the tillers was much to the purpose. Second, the establishment of small-scale owner-operators in Korean agriculture, by producing many active participants in the capitalist market economy as buyers of manufactured goods, well fit in with the US scheme to build a global capitalist economic regime in the postwar era operating around the US as its hub.

The core of the Korean land reform lies in its land redistribution program. The official land redistribution program of the Korean government was put into effect in April 1950. But, even before the formulation of government's reform program, a significant change had already taken place. In 1948, the US Military Government had sold over 243,000 hectares of confiscated farmland formerly owned by the Japanese landlords, mostly to the former Korean tenants of the land (Bank of Korea, 1955). From 1945 to 1949 the fear of radical land reform (confiscation and redistribution of farmlands without compensation) and the rising tide of radicalism in the countryside forced many Korean landlords to sell privately their farms to the tenants. Thus, between the end of 1945 to June 1949, tenant farm households decreased from over one million to around a half million (total farm households in 1945 was 2,065,000) and land area tilled by tenants fell from 1,460,000 hectares to 820,000 hectares (total cultivated land area during the period was around two and a half million hectares) (Bank of Korea, 1948; 1956; MAF, 1970). In March 1950, the Land Reform Act was passed. By 1952, under this law, the Korean government purchased from the landlords 330,000 hectares of farmland and distributed them to the landless peasants (Ban, Moon, and Perkins, 1980:283-87).[5]

Land reform efforts in Korea during the late 1940s and the early 1950s were so extensive that they fundamentally changed the agricultural landscape of the countryside. They created a vast mass of small-scale owner-operated farms. By 1959, the number of tenant farm households declined to 43,000, a mere 2 percent of total farm households; the area of land tilled by tenants, to 155,000 hectares, less than 8 percent of total cultivated land (MAF, 1960). Thus, by the early 1960s a small-scale family farm system was firmly established in the countryside. Ninety-three percent of farm households owned farmlands smaller than two hectares (MAF, 1968). An important outcome of the successful land reform program was a remarkable increase in rural income. Per-household farm income (minus rent) was 40 percent higher in 1962 than in the 1930s; "about half this increase in income was due to increases in agricultural production per family, but the other half was caused by land reform" (Mason et al., 1980:239). As a secondary benefit, the existence of a rural sector com-

posed mostly of owner-operated family farms provided fertile ground for a nationwide rural income-generating drive during the 1970s. This drive, known as *Saemaul Undong* or the New Community Movement, greatly contributed to the creation of a stable "home market" in the rural sector for the domestic manufacturing industries.

Industrialization Efforts and Two Different Results

When the Philippines was liberated in 1945, the Philippine economy was devastated, characterized by high inflation, shortages of basic commodities, hunger, disease, and destruction. The same was true for the South Korean economy. The sudden departure of the Japanese led to a severe shortage of capital and managerial and technical personnel. After the partition of the Korean peninsula, South Korea was seriously disadvantaged in terms of industrial facilities and raw materials. Industrial facilities were heavily concentrated in the northern part of Korea, which was also richly endowed with minerals and other raw materials. However, more than anything else, the three years of Korean War totally destroyed the remaining urban industrial facilities and infrastructure and devastated the rural economy. Thus, the limited amount of industrial capital accumulated during the colonial period was not transferred to the postwar Korean economy.

In their attempts to overcome the devastation of war, both the Philippines and South Korea launched massive campaigns for industrial development. They endeavored to achieve economic development first through an import-substitution industrialization (ISI) policy, later shifting to export-oriented industrialization (EOI). The Philippines initiated its ISI drive in 1949 with the implementation of protectionist measures, while Korea started its ISI-oriented economic development program in 1953. However, their industrializing efforts led to very different results.

Landed hegemony again acted as the main cause of the failure of the ISI policy in the Philippines. The Philippine landed class had always supported the export-oriented commercial agriculture, preferring a free-trade policy and the maintenance of an open-economy. The success of ISI, however, lies in its protectionist policy--in the implementation of such measures as import control and exchange control. Due mainly to pressure from landed interests, the Philippine government was forced to lift the control measures in 1962. The postwar free trade regime between the US and the Philippines, initiated by the Bell Trade Act of 1946, allowed surplus American manufactured goods to flood into the Philippines in the late 1940s. Imports from the US drained the Philippine economy of its foreign exchange reserves, creating a severe balance-of-payment problem (Constantino and Constantino, 1978:227; Golay, 1961:44, 112; Villegas, 1982:4). In 1949, fearing the collapse of the Philippine economy and the expansion of communism, the US government reluctantly allowed the Philippines to implement foreign exchange and import control policies. This protectionist measure encouraged the growth of a substantial degree of industrial development in the manufacturing industry. Local Filipino entrepreneurs started many new industrial undertakings, establishing more than 5,000 new enterprises during the first four years of the protectionist regime. Under the protectionist umbrella, they began to produce such industrial goods as textiles, cements, and fertilizer. The control measure, however, increasingly agitated the traditional export-oriented agrarian elites, as it greatly diminished their profits. They began to complain of the existing economic policy and exerted their influence upon the government. Pressure also came from the US government and the Ameri-

can business community in Manila. The US government, unwilling to endure the protectionist policy of the Philippine any longer, compelled the Philippine government to devalue the peso and to remove exchange control. In November, 1961, Diosdado Macapagal, an advocate of open economy and non-interventionist economic policy, won the presidential election, owing to the clandestine support of the US government and the open support of landed elites who financed his election campaign. The moment he assumed the office in January 1962, his administration lifted the exchange/import controls and returned to the open economy. As the protectionist wall was being removed and the Philippine peso was devalued, more and more domestic Filipino enterprises went bankrupt. Many local enterprises were swallowed up by foreign corporations or forced into joint ventures.

Korea's industrialization effort began in 1953, after the Korean War. The key objectives of government economic policy during the 1950s were to reconstruct the industrial facilities and infrastructure destroyed by the war and to stabilize commodity prices. Its industrial policy was based on ISI strategy. The government implemented various import control measures--high tariffs and quantitative import quota restrictions. These measures encouraged domestic industries, particularly consumer goods industries (Kim and Roemer, 1979:40-78; Mason et al., 1980:92-164). In the mid-1960s, under President Park's regime (1961-79), government policy objectives changed from rehabilitation and stabilization to a rapid economic growth based on outward-looking EOI. From 1961 to 1975, the average annual growth rate of GNP at 1970 constant prices reached 9.6 percent, while the average growth rate of industrial value added was a remarkable 18.4 percent. The growth of exports has averaged more than 35 percent a year in real terms since the 1960s (Mason et al., 1980:97-98).

Rapid industrialization of the Korean economy has been traced to such factors as a smooth flow of foreign capital, a highly educated and skilled labor force, effective and selective government intervention, and entrepreneurship. Korea was empowered with massive foreign capital, mostly from the US. Immediately after the Korean War, the US aid was poured into the Korean economy in the forms of reconstruction aid (from UNKRA), agricultural surplus aid (by Public Law 480 from 1956) and economic aid (from ICA in the late 1950s and AID in the 1960s). During the decade from 1953 to 1962, over 2.5 billion dollars of aid flowed into the country (Bank of Korea, 1965-67). They were transfused into the Korean economy through the Korean state as the allocator. It laid the base for the Korean state's dominance over the private economy and the state-led industrialization and export drive during the 1960s and 1970s.

Yet Korea's economic success also drew strength from the absence of hegemonic landed interests. The demolition of the old landed class, together with the establishment of small-scale land ownership in agriculture, allowed the Korean state a wide range of options in its economic policy. During the 1960s, the government had tight control over grain prices, especially those for rice and barley; they had been kept consistently low during the decade. In the absence of strong resistance from the agricultural sector, the government could import a large quantity of PL 480 grain from the US, and marketed the grain through government channels at a competitive price. Low grain prices and large imports of foreign grain helped the government to maintain the terms of trade favorable to urban industry, as well as to control inflation. The agricultural production and marketing sectors characterized by owner-operators and a high degree of

government control enabled the government to channel food staples to the urban industrial work force in sufficient quantity and in a stable manner (Ban, Moon, and Perkins, 1980:234-59; Brown, 1973:111-29).

Conclusions

This study examined the role of agrarian class relations in the industrial development of two East Asian countries--the Philippines and South Korea. The structural transformation in agriculture and rural class relations are critical to the development (or underdevelopment) of industrial capitalism. Barrington Moore (1966) was one of the first social scientists to point to the critical role of bourgeois hegemony, rural class relations, and the revolutionary potential of peasants as determining various paths or routes to development. Moore's approach, however, suffers from a focus on "exclusively intrasocietal change-producing processes" (Skocpol, 1973:12). Alternatively, theories of external determination examine how internal structural changes in agrarian sectors are shaped by external forces (Wallerstein, 1974).

Our comparative research on the divergent paths of development in the Philippines and South Korea points to the intricate relationship between external forces and agrarian class dynamics. The debate over the relative importance of external versus internal influences on agrarian relations is largely a historical one. Clearly, external forces set in motion structural changes in developing countries and influence the nature of class relations in rural areas. But at the same time, rural class relations have their own independent force that can sometimes shape external forces, as it did in the case of the Philippines. Agrarian class relations are the site where internal and external influences merge. Rather than identifying which set of influences is most important, it is more useful to frame the problem as an historical one that leaves open the question of the role of class, state, and transnational relations on the agricultural system.

Notes

1. In 1939, large-scale factories with over 200 workers accounted for merely 1.2 percent of all manufacturing factories and yet produced 61.8 percent of total manufacturing products (Kawai 1943:252-53, cited in Suh 1978:109).

2. In 1938, Japanese-owned industrial "corporations" accounted for 87.7 percent of total capital of all industrial corporations, while constituting 52.1 percent in number. The capital of the average Japanese corporation was more than six times as large as that of the average Korean corporation--267,000 yen versus 41,000 yen (Choi 1971:286-89; Himeno 1940:330; see also Amsden 1989:33; Grajdanzev 1944:171-76; Hamilton 1986:15).

3. Some researchers have argued that domestic industrialists of landed origin produced in the Japanese colonial period played a central role in the economic development of South Korea during the 1960s (Hamilton 1986; Jones and SaKong 1980; McNamara 1990). Recent studies (e.g., Suh 1988) show evidences against their argument. Kim Yon-su, a former big landlord who was successfully transformed into a textile manufacturer in the 1930s and became one of the major entrepreneurs in the 1960s (see the case study of McNamara 1988), was the only exception.

4. The Korean Democratic Party, formed by leading industrial capitalists whose capital was of landed origin (e.g., Kim Song-su) and their associates, was their last hope. However, under the authoritarian rule of Syngman Rhee (1948-60), this last bastion of landed interests became politically neutralized.

5. Due to the Korean War (1950-53), the implementation of land redistribution program was suspended for several months. But, immediately after Seoul was retaken by the Allied forces in September 1950, the program was resumed.

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Resumen

Transformación agraria y colonialismo: Un Estudio Histórico-Comparativo de Corea y Filipinas

Este estudio compara el desarrollo de Corea del Sur, caso relativamente exitoso en Asia oriental, con el subdesarrollo de Filipinas. Examinamos la dinámica interna de clase y las fuerzas económicas del mundo exterior que le dieron forma al desarrollo capitalista en Corea y Filipinas. El análisis comparativo revela que la transformación estructural de la agricultura y las relaciones entre clases rurales fueron claves para determinar los senderos divergentes de desarrollo de estos dos países asiáticos.

***Seung Woo Park** es Profesor Asistente en el Departamento de Sociología en la Universidad Yeungnam, República de Korea. Enseña e investiga en el área de la sociología del desarrollo y sociología política. **Gary P. Green** es Profesor Asociado en el Departamento de Sociología Rural en la Universidad de Wisconsin, Estados Unidos. El investiga principalmente las áreas de la sociología de la agricultura y desarrollo de comunidad.*

A Research Agenda: The Globalization of the Fresh Fruit and Vegetable System

William H. Friedland and David Goodman

A workshop on the globalization of the fresh fruit and vegetable (FFV) system brought together numerous scholars from around the world at the University of California - Santa Cruz. The FFV system has become truly global as evidenced by (1) the erosion of the seasonality of consumption via international sourcing and (2) the expansion of the product inventory. This has led to the development of non-traditional export agriculture in the Southern Hemisphere, which in turn has had many social, environmental and economic consequences, not all of which are found in all production locations. The distributional segment of the FFV system, where environmental issues dealing with energy intensivity and the sheer volume of packaging are becoming ever more important, is dominated by a small number of sizable transnational corporations but the marketing sector seems, in effect, to drive the entire system. There is an increased demand for FFV because of rising levels of health and nutritional education, concern about consuming healthy food, worries about food safety, and the aging of populations in the advanced industrial nations. What emerged from the workshop is a growing recognition of the need to systematize the analysis of the FFV by creating a network of researchers and defining a research agenda which would include more topics, i.e. environmental and ecological conditions, and more disciplines, i.e. transportation geography/economics.

The authors are Professors Sociology at the University of California - Santa Cruz. **William H. Friedland** has been active in the development of the sociology of agriculture having written numerous articles and books on this topic. **David Goodman** has written extensively on the environment and sustainability in Latin America.

Introduction

A workshop on the globalization of the fresh fruit and vegetable (FFV) system was held in December, 1991 at the University of California - Santa Cruz. The Workshop, arising out of an on-going discussion of the growth of fresh fruit and vegetable consumption in advanced industrial countries, was convened by the authors to bring together work already being done in the area as well as to establish a loose agenda for future research. Funding for the workshop was provided by the Graduate Division of the University of California, Santa Cruz and the North-South Center, which helped to facilitate the participation of scholars from outside the US and Europe.

The workshop was organized in three basic segments: production, distribution, and marketing, with additional segments concerned with scientific and technological developments and international regulatory issues and trade agreements. Of the three main segments, the largest and broadest representation was from the production segment. Broad geographic coverage was provided by participants coming from or having conducted research in Mexico, Central America, Brazil, and Chile.

Efforts to include representation from Africa and Asia proved to be unsuccessful. Kenya and Zimbabwe are important locations of production for the European market and Malaysia and Thailand are similarly important for the Japan/Hong Kong market regionally as well as

for some specific commodities targeted to the European and North American markets.

An Examination of Existing Research: The Workshop Presentations

The FFV system has become truly global in the sense that it now involves all continents in a network of production and distribution. The system is, however, unevenly developed with consumption being primarily oriented toward high income industrialized nations, notably in Western Europe, North America, Japan and Hong Kong. In addition, trade in FFV continues to be between these nations or is strongly intra-regional as in the case of the European Community and the emerging North America Free Trade Area. At the same time, the bulk of FFV is produced in the US and the EC countries for their own consumption.

What has extended the system has been (1) the erosion of the seasonality of consumption via international sourcing so that many FFV are now available in consumption markets on a year-round basis, and (2) the expansion of the product inventory. In the first instance, *counter-seasonal* production in the middle latitudes and in the Southern hemisphere has created the development of a category labeled "non-traditional export agriculture" (NTEA) in locations such as Central America, Chile and Argentina, Kenya and Zimbabwe, which now ship melons, green beans, table grapes, soft fruits, and other agricultural commodities to markets that previously did not have such commodities available during winter months. In the second instance, a host of "new" commodities previously unknown or known only to limited ethnic consumers have now become more broadly available. Included in these are dozens of "new" tropical commodities such as carambola (starfruit), fresh lychees, and many others that now can be found in supermarkets and greengrocers throughout the high-income countries.

The consequences of the production of NTEA are varied but include the following: concerns about the social disruption experienced by indigenous producers as new social relationships are introduced along with new production methods; effects on land tenure; problems arising from the instabilities of contractual arrangements with purchasers of commodities; environmental consequences because of the expansion of the use of agricultural chemicals such as fertilizers and pesticides; changes in household arrangements as a result of the introduction of new divisions of labor between the genders; the development of a new category of entrepreneurs with tenuous stakes in local production prepared to shift production locations and to abandon local commitments; the development of small-scale micro-resistance movements antagonistic to NTEA, and more.

Not all of these consequences are found in all production locations. What emerged from the presentations and the discussions in the workshop was the recognition of the need to systematize the analysis of consequences and to develop a clearer picture of the conditions giving rise to some consequences in certain locations but not in others. In this respect, there was an agreement that systematic *comparative* research was necessary in which the distinct local experiences could be considered more deliberately against those in other locations.

Production is only one part of the FFV system. Another is the distributional segment which is dominated by a small number of sizable transnational corporations. This segment, which is very much in transition, is concentrating economically and the firms within it are characterized by considerable instability with high acquisition rates, as well as a spectacular major bankruptcy, and with still other firms emerging as key players.

Although not covered adequately by the papers that were presented at the workshop, the discussion revealed the considerable importance of environmental issues in the distribution system. Two issues stand out. The first is the recognition of the energy intensivity of the distribution segment because of the distances through which FFV commodities are conveyed and the necessity for maintaining a cool chain from producer to consumer. The second has to do with the sheer volume of packaging materials necessary to convey FFV, something which has given rise to *Topfer* legislation in Germany which requires packaging material to be either recyclable or for shippers to pay the cost of removal of the material. Future contributions on these topics would be valuable.

The marketing sector seems, in effect, to drive the entire system. The critical elements have to do with the increased demand for FFV because of rising levels of health and nutritional education, concern about consuming healthy food, worries about food safety, and the aging of populations in the advanced industrial nations. The key actors, however, are the supermarket chains in western Europe, Scandinavia, and North America, which account for the dominant share of household food expenditures. These chains presently handle enormous volumes of FFV which are now recognized as major profit centers in retail food stores. Moreover, the chains (or, as they are referred to in the UK, the "multiples") have become the driving force for quality standards, predictability of delivery schedules, concerns for food safety, and environmental issues. Thus, when a "food scare" occurs, such as with Alar-treated apples or Chilean grapes ostensibly being cyanided, it is the supermarkets that must respond to consumer fears about pesticide residues or other additives perceived as health threats. The market power of the supermarkets and their sensitivity to consumer demand, both in terms of health and product variety, are key characteristics of the global FFV system that need further study.

Some research presented at the workshop focused on research and development in the FFV sector and the close integration between new directions in plant breeding research and market developments, indicating that scientific and technological issues of the FFV system need to be examined. The integration of plant breeding and market developments is seen, for example, in the concentration of research on such characteristics as quality, uniformity, ease of handling, length of shelf life, and period of availability. Great strides have been made in extending the season length to permit fuller utilization of productive capacity and in response to consumer demand for year-round availability. Equally, with more efficient global transportation and the development of *cool chains*, extended growing seasons lead to intensified competition as the temporal production irregularities which previously segmented markets and defined "windows of opportunity" for counter-seasonal producers diminish.

In pursuing recent developments in plant breeding, several workshop participants drew attention to the increasing application of advanced agri-biotechnologies to FFV. These methods include "antisense" techniques to slow down the natural ripening process and so reduce the perishability and extend the shelf-life of such products as tomatoes, broccoli, and soft fruit. The increasing use of hybrid varieties also was noted. At present hybrid varieties of small-flowered plants are obtained by highly labor-intensive methods of hand pollination, and the transnational seed companies rely mainly on contract arrangements with small farmers in the Far East, especially China and Thailand.

Finally, participants in the workshop reflected on the prospects of converting high external input systems to more environmentally sustainable systems. This discussion was particularly pertinent in view of several case studies presented, which detailed social and ecological disasters in Central America as a result of the excessive use of agrochemicals in monocultural systems.

Proposals for Future Research

Workshop Discussion

One issue discussed by participants focused on what might be referred to as *the boundary problem*. There is an important interrelationship of the FFV system with generalized fruit and vegetable production, only some of which is geared to the *fresh* market. The processing of fruits and vegetables--through canning, drying, freezing, etc.--represents an important set of activities that interrelate to the fresh market segment. At one and the same time, participants want to remain largely focused on the fresh segment but acknowledge that scholars working on the processed segment of F&V can also contribute to our research and the network should be open to their participation.

Another *boundary problem* develops from the interrelations between the global system of fruits and vegetables, on the one hand, and local, national, and regional systems of FFV production and distribution. The latter forms remain important not only because the production of most FFV is still clustered locally, nationally, and regionally, but also because of the numerical preponderance of actors at this level. At the same time, it is the *global* segment that is growing so massively and concentrating so rapidly. The focus should remain on the global segment but monitoring of other more localized developments should be continued.

Another recommendation was that continuity should be maintained because of the value of learning what was going on in different geographical locations and functional systems, and the ways in which these elements interact at macro-level regional and global levels. That is, people researching in specific countries in Latin America need to be kept informed about developments in other countries in Latin America as well as in Africa and Asia. It is useful to see the similarities and differences between production systems in such varied locations as Brazil, Chile, France, California, Spain, Malaysia, etc., and their insertion in global markets. At the same time, researchers in production found that they had inadequate knowledge of the distribution and marketing systems. Information on downstream activities not only provided a better sense of how products produced in their locations were handled but also an understanding about the demands that are put on local producers for "quality."

Two forms of continuity constituting a *network* were agreed upon at this workshop: functional and regional clusters of researchers who would be grouped around common topics of research should be formed; research clusters should be convened from time to time and, more occasionally, the entire network. The regional and functional groups would be constituted on a voluntary basis according to individual interests. The process of establishing research clusters is now underway, with one group of three participants already preparing a research proposal conjoining their interests in production in the Pacific Rim. Several of the Brazilian and US participants, recognizing the importance of the Sao Francisco Valley development project in Brazil, are exploring a coordinated research effort.

Specific Suggestions for Future Research Work

The researchers present at the workshop agreed on a number of principles that should guide future developments of the network.

- A *network* through which research materials, results, and analyses can be communicated rapidly should be actively developed.
- Clustering of researchers should be encouraged, by individual researchers themselves, and to the extent that it is possible, by the workshop convenors. Clusters should determine their own research agendas and their own methods of operating. Clusters should not be dependent on any central or external source for the determination of their agendas.
- Individual researchers and research clusters should be responsible for finding their own research support.
- An *information exchange system* to diffuse research materials to network members and/or to individual participants should be organized. The utilization of trade publications and/or special sections of newspapers and government reports which provide data on various aspects of the FFV system could be very useful if made available to network participants. This could potentially develop as a central distribution facility with a number of originating loci.
- Two gaps exist in the present research. First, at the workshop, continuing reference was made to environmental and ecological conditions indicating that these matters will require much greater attention in the future. Secondly, the length of the cool chains that now exist between production and consumption locations requires the augmentation of the present research by transportation geographers/economists. The cool chains are not only capital intensive but also very energy intensivef. A better grasp of the environmental and economic costs of the chain would be useful to the overall purpose of the network.
- Finally, while each individual and/or cluster should be responsible for seeking funding to facilitate its research, network-wide funding for the shared-information system should be sought.

Agenda de Investigación: El Sistema de Frutas y Vegetales Frescos

William H. Friedland y David Goodman

Un taller sobre globalización del sistema de frutas y vegetales frescos (FFV) reunió a algunos estudiosos de diversos países del mundo en la Universidad de California en Santa Cruz. El sistema de Frutas y Vegetales Frescos se ha convertido realmente global, como lo evidencia (1) la erosión del carácter estacional del consumo y (2) la expansión del inventario de productos. Esto ha llevado al desarrollo de una agricultura de exportación no tradicional en el Hemisferio Sur, la cual a su vez ha tenido diversas consecuencias sociales, ambientales y económicas, no encontrándose todas estas características reunidas a la vez en las distintas localidades de producción. El segmento distribución del sistema de Frutas y Vegetales Frescos, donde las cuestiones ambientales relacionadas con la intensidad energética y el inmenso volumen de empaquetamiento están adquiriendo cada día mayor importancia, está dominado por un grupo pequeño de grandes corporaciones transnacionales, pero es el sector mercadeo el que parece en efecto manejar el sistema total. Existe una agigantada demanda de estos productos a causa del aumento de los niveles de salud y la educación nutricional, el interés por consumir productos sanos, la preocupación por alimentos no contaminados y la edad de las poblaciones en los países industriales avanzados. Del taller surgió un creciente reconocimiento de la necesidad de sistematizar el análisis del sistema de Frutas y Vegetales Frescos a través de una red de investigadores y la definición de una agenda de investigación que incluiría otros puntos, como por ejemplo, las condiciones ambientales y ecológicas y otras disciplinas como la geografía y la economía del transporte.

Los autores son profesores en la Universidad de California en Santa Cruz. **William H. Friedland** ha estado trabajando activamente en el desarrollo de la sociología de la agricultura y ha escrito muchos libros y artículos sobre este tema. **David Goodman** ha escrito muchos trabajos sobre medio ambiente y sustentabilidad en Latinoamérica.

Introducción

En diciembre de 1991 se realizó en la Universidad de California en Santa Cruz un taller sobre la globalización del sistema de frutas y vegetales frescos (FVF). Este taller, el cual surge como resultado de la discusión que existe actualmente sobre el consumo de frutas y vegetales frescos en los países industriales avanzados, fue convocado por los autores de trabajos que se han venido realizando en esta área para establecer una agenda amplia para investigaciones futuras. Los fondos para el taller fueron aportados por la División de Estudios para Graduados de la Universidad de California en Santa Cruz y el Centro Norte-Sur, el cual ayudó a facilitar la participación de estudiosos de Europa y otros países del mundo.

El taller fue organizado en torno a tres segmentos básicos: producción, distribución y mercadeo, con otros segmentos adicionales relacionados con el desarrollo científico y tecnológico y las regulaciones internacionales sobre tratados comerciales. De los tres segmentos principales la exposición más extensa y prolongada correspondió al segmento producción. Se logró una buena cobertura geográfica con la participación de investigadores que han estado realizando estudios en México, América Central, Brasil, y Chile.

Los esfuerzos hechos para incluir una representación de Africa y Asia no tuvieron éxito. Kenia y Zimbabwe son dos localidades importantes de producción para el mercado europeo y Malasia y Tailandia son igualmente

importantes, desde el punto de vista regional, para Japón y Hong Kong, así como también para los mercados europeo y norteamericano por algunos productos dirigidos a éstos.

Examen de las Investigaciones Existentes: Exposiciones Realizadas en el Taller.

El sistema de frutas y vegetales frescos (FVF) se ha convertido en un sistema realmente global, en el sentido de que ahora involucra a todos los continentes en una red de producción y distribución. Sin embargo, este sistema está desarrollado en forma desigual, con un consumo orientado principalmente a los países industrializados de altos ingresos, en forma clara en Europa Occidental, Norte América, Japón y Hong Kong. Adicionalmente, el comercio de frutas y vegetales frescos continúa siendo entre estas naciones, o en forma fuertemente intrarregional, como es el caso de la Comunidad Europea y el área emergente de libre comercio en América del Norte. A la vez, el grueso de las frutas y vegetales frescos es producido en Estados Unidos y en la Comunidad Europea para su propio consumo.

Lo que ha extendido el sistema ha sido (1) la erosión del carácter estacional de consumo a través de fuentes internacionales, de forma tal que ahora las frutas y vegetales fresco se encuentran disponibles en los mercados durante todo el año; y (2) la expansión del inventario de productos. En primer lugar, la producción fuera de estación en las latitudes medias y en el Hemisferio Sur ha creado el desarrollo de una categoría denominada «agricultura de exportación no tradicional» (AENT) en localidades tales como Centro América, Chile y Argentina, Kenia y Zimbabwe, países que ahora embarcan melones, habichuelas, uvas, frutas delicadas y otros productos agrícolas que anteriormente los mercados no tenían disponibles durante los meses de invierno. En segundo lugar, un número de «nuevos» productos o sólo conocidos por etnias limitadas, se encuentran ahora ampliamente disponibles, incluyendo en éstos decenas de «nuevos» productos tropicales como la carambola, pomarrosas chinas (litchis) y muchos otros que ahora se pueden encontrar en los supermercados y tiendas de alimentos en todos los países de altos ingresos.

Las consecuencias de la producción de la agricultura de exportación no tradicional son diversas, pero incluyen las siguientes: Junto con los nuevos métodos de producción se introducen las preocupaciones acerca de las perturbaciones sociales experimentadas por los productores nativos, tales como nueva forma de relaciones, efectos sobre la tenencia de la tierra, problemas que surgen de la inestabilidad de los arreglos contractuales con los compradores de productos, consecuencias ambientales a causa del uso de químicos como fertilizantes y problemas dentro de las familias como resultado de la introducción de nuevas divisiones del trabajo para los diferentes sexos, así como el surgimiento de una nueva categoría de empresas con poco interés en la producción local y listas para mudarse a otros lugares de producción y abandonar los compromisos contraídos localmente y el surgimiento en pequeña escala de movimientos de microrresistencia antagonistas a la agricultura de exportación no tradicional, además de otras consecuencias.

No todas estas consecuencias se encuentran a la vez en todas las localidades de producción. Lo que surgió de las exposiciones y discusiones en el taller fue el reconocimiento de la necesidad de sistematizar el análisis de las consecuencias y tratar de lograr un panorama más claro de las condiciones que crean algunas de las consecuencias en ciertas localidades pero no en otras. Al respecto, hubo unanimidad en cuanto a que se hace necesaria

una investigación comparativa ***sistemática***, dentro de la cual las diferentes experiencias locales puedan ser comparadas en forma más circunstanciada con las de otras localidades.

La producción es sólo una parte del sistema de frutas y vegetales frescos; el segmento distribución representa otra parte, estando éste dominado por grandes corporaciones transnacionales. Este segmento, el cual se encuentra en etapa de transición, está económicamente concentrado y las firmas dentro del mismo se caracterizan por una inestabilidad considerable, con altas tasas de adquisición, así como también por bancarrotas espectaculares de las empresas más grandes y el surgimiento de otras firmas estables como jugadores claves.

Aún cuando el tema no fue totalmente cubierto por los trabajos presentados en el taller, la discusión reveló la gran importancia de los asuntos ambientales en el sistema de distribución. Sobresalen aquí dos puntos: el primero es el reconocimiento de la intensidad energética del segmento de distribución a causa de la distancia a través de la cual los productos del sistema FVF son llevados y la necesidad de mantener una cadena de refrigeración para mantenerlos frescos desde que salen del productor hasta que llegan al consumidor. El segundo punto tiene que ver con el enorme volumen de materiales de empaquetamiento requerido para el transporte de los productos, algo que ha dado lugar a la legislación Topfer en Alemania, la cual exige ya sea material de empaquetamiento reciclable o que los encargados de embarcar los productos paguen el costo de eliminación del material de desecho. Futuras contribuciones sobre estos temas serán de mucho valor.

La sección mercadeo parece que es la que en efecto dirige el sistema total. Los elementos críticos tienen que ver con el aumento en la demanda de frutas y vegetales frescos debido a los niveles de salud en aumento, la educación nutricional, el interés por consumir alimentos saludables, no contaminados y el envejecimiento de las poblaciones en las naciones industriales avanzadas. Los actores claves, sin embargo, son las cadenas de supermercados en Europa Occidental, Escandinavia y América del Norte, dando cuenta de la participación dominante del mercado. Estas cadenas actualmente manejan enormes volúmenes de frutas y vegetales frescos, siendo reconocidas como grandes centros de beneficio en tiendas de alimentos al detal. Aún más, las cadenas (o como se les llama en el Reino Unido «Múltiples») se han convertido en una fuerza estimuladora de las normas de calidad, de certidumbre en las fechas de entrega, de garantía de la calidad de los alimentos y los asuntos ambientales. Por lo tanto, cuando ocurre una situación de «temor por algunos alimentos», tal como las manzanas tratadas con Alar o las uvas chilenas supuestamente contaminadas con cianuro, son los supermercados los que deben responder a estos temores de los consumidores acerca de los residuos de pesticidas u otros aditivos percibidos como dañinos para la salud. El dominio de los supermercados y su sensibilidades con respecto a las demandas de los consumidores, tanto en términos de salud como en variedad de productos, son características claves del sistema global de frutas y vegetales frescos que deben ser aún estudiadas. Algunos trabajos de investigación presentados en el taller están centrados en la investigación y desarrollo del sector de estos alimentos y la estrecha integración entre las nuevas tendencias en las investigaciones de reproducción de plantas y desarrollos de los mercados, indicando que las cuestiones científicas y tecnológicas relacionadas con el sistema de frutas y vegetales frescos necesitan ser examinadas. La integración de la reproducción de plantas y los desarrollos de mercados es vista, por ejemplo, en la concentración de las investigaciones en características tales como calidad, uniformidad,

fácil manejo, durabilidad en estantes de los productos y el período de disponibilidad. Se han realizado grandes avances en cuanto a la extensión de la duración del período de cosecha para permitir la utilización de la capacidad productiva y en respuesta a la demanda de los consumidores en cuanto a disponibilidad durante todo el año. Igualmente, con un transporte global más eficiente y el desarrollo de ***Cadenas de refrigeración***, la extensión de los períodos de cosecha lleva a intensificar la competencia ya que disminuyen las irregularidades de producción que segmentaron previamente el mercado y definieron las «ventanas de oportunidad» de los productores contra-estación.

En la afanosa búsqueda de las novedades recientes en reproducción vegetal, algunos participantes del taller desviaron su atención hacia la creciente aplicación de agro-tecnologías avanzadas a las frutas y vegetales frescos. Estos métodos incluyen técnicas de «freno» para disminuir la maduración natural y por tanto reducir la incidencia de putrefacción y extender el tiempo de vida de productos tales como tomates, broccoli y frutas delicadas, notándose además el uso de variedades híbridas. Actualmente las variedades híbridas de pequeñas plantas florales se obtienen a través de métodos intensivos de trabajo y polinización manual, dependiendo las compañías semilleras internacionales de arreglos contractuales con pequeños granjeros en el Lejano Oriente, especialmente en China y Tailandia.

Finalmente, los participantes del taller reflexionaron sobre las perspectivas de convertir los sistemas de altos insumos externos en sistemas más adecuados desde el punto de vista ambiental. Esta discusión fue particularmente atinada, en vista de los diversos casos de estudio presentados, los cuales hacían mención detallada de los desastres ecológicos y sociales en América Central, como resultado del uso excesivo de agroquímicos en los sistemas de monocultivo.

Propuestas para una investigación futura

Discusiones de taller

Uno de los puntos discutidos por los participantes se centró en lo que puede denominarse problema de delimitación. Existe una interrelación importante entre el sistema de frutas y vegetales frescos con la producción generalizada de frutas y vegetales, de los cuales sólo algunos engranan dentro del mercado ***fresco***. El procesamiento de frutas y vegetales --a través de envasado, secado, congelación, etc.-- representa una serie de actividades que se interrelacionan con el segmento mercado ***fresco***. Por unanimidad todos los participantes desean permanecer centrados en este punto, pero reconocen que el trabajo académico sobre el segmento procesador de las frutas y vegetales puede contribuir también con nuestra investigación y la red debe ser abierta para que todos participen.

Otro problema de delimitación se desarrolla de la interrelación entre el sistema global de frutas y vegetales frescos, por una parte, y los sistemas locales, regionales y nacionales de producción y distribución de frutas y vegetales frescos. Estas últimas formas siguen siendo importantes no sólo porque la producción de la mayoría de las frutas y vegetales frescos se encuentra agrupada ya sea local, regional o nacionalmente, sino también por la preponderancia numérica de los actores en estos niveles. A la vez, es el segmento global que está creciendo en forma masiva y concentrándose más rápidamente. El segmento global debe permanecer como punto de referencia, pero debe continuarse el seguimiento de otras manifestaciones mucho más localizadas.

Otra de las recomendaciones fue que se debe mantener continuidad debido a la importancia de saber qué era lo que estaba pasando en las diferentes localidades geográficas y en los sistemas funcionales, y la forma en que estos elementos interactúan a un nivel macrorregional y global. Es decir, la gente que investiga en países específicos de América Latina necesita mantenerse informada acerca de lo que se ha estado investigando en otros países latinoamericanos, así como también en Africa y Asia. Es útil examinar las similitudes y diferencias entre los sistemas de producción en localidades tan diferentes como Brasil, Chile, Francia, California, España, Malasia, etc., y su inserción en los nuevos mercados globales. A la vez, los investigadores en producción se encontraron con que ellos tienen un conocimiento inadecuado de los sistemas de distribución y mercadeo. La información sobre actividades «corriente abajo» (downstream) no sólo suministró una mejor apreciación de cómo se manejaron productos provenientes de sus localidades, sino también una mejor interpretación acerca de las exigencias que se les hacen a los productores en cuanto a «calidad».

En este taller se acordaron dos formas de seguimiento mediante una red que abarque grupos funcionales y regionales de investigadores que se reunirán en torno a temas comunes; los grupos de investigadores pueden ser convocados de vez en cuando y la red completa alguna que otra vez. Los grupos regionales y funcionales quedarán constituidos en forma voluntaria, de acuerdo a los intereses individuales de los investigadores. Ya se comenzó el proceso de establecer los grupos de investigación, empezando con un grupo de tres participantes que están ya preparando una propuesta de investigación de producción en el área del Pacífico. Algunos de los asistentes brasileños y norteamericanos, reconociendo la importancia del proyecto de desarrollo del Valle de São Francisco, en Brasil, están explorando la idea de llevar a cabo una investigación conjunta.

Sugerencias específicas para llevar a cabo futuros trabajos de investigación.

Los investigadores asistentes al taller acordaron algunos principios que deberían guiar los futuros estudios de la red:

- Se organizará una red activa a través de la cual puedan difundirse rápidamente los materiales de investigación, los resultados análisis realizados.
- El agrupamiento de los investigadores debe ser fomentado por cada uno de ellos en particular, y hasta donde sea posible, por los convocantes del taller. Los grupos deben establecer sus propias agendas de investigación y los métodos de trabajo. Los grupos no deben depender de ninguna fuente central o externa para determinar sus agendas.
- Los investigadores, tanto en forma individual como de grupo, deben ser responsables de la obtención de fondos para realizar sus investigación.
- Se debe organizar un sistema de intercambio de información para que ésta pueda ser difundida entre los miembros de la red y/o participantes individuales. Sería de mucha utilidad el hecho de que los participantes puedan disponer de material de información sobre diversos aspectos del sistema de frutas y vegetales frescos, ya sea proveniente de secciones especiales en los periódicos, de publicaciones comerciales o de reportes gubernamentales. Eso puede ser potencialmente organizado como un servicio central de distribución de la información proveniente de diversos sitios.
- Existen dos vacíos en la investigación actual: Primero, en el taller se hizo

referencia continua sobre las condiciones ecológicas y el ambiente, indicándose que estos aspectos requieren mucha atención en el futuro. Segundo, la longitud de la cadena de refrigeración existente, que va desde los lugares de producción hasta los sitios de consumo, requiere del acrecentamiento de la investigación actual realizada por geógrafos y economistas. Las cadenas de refrigeración no son sólo intensivas en capital sino también en energía. Una mejor comprensión de los costos económicos y ambientales de estas cadenas sería de mucha utilidad para el propósito general de la red.

- Finalmente, en tanto que cada investigador en particular y/o el grupo debe ser responsable de la obtención de fondos para investigaciones, a la vez, debe tratar de lograr fondos para el sistema de información compartida de la red en conjunto.