Chapter 6

Farmers' Markets

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Introduction

The last chapter examined a number of technologies that can reduce the small-scale farmer's vulnerability to energy price increases and supply disruptions. These technologies can also improve the economics of small-scale agriculture by reducing production costs, particularly those related to nonrenewable sources of energy. Just as essential to the viability of the small farm, however, is access to dependable and profitable markets. With the advent of large-volume supermarket chains, which tend to rely on large-volume growers, the markets available to small-scale farmers has become increasingly limited. This chapter examines the farmers' market and other alternatives to this energy-intensive, mass-distribution marketing system.

The current U.S. marketing system for farm products, like current large-scale farming methods, has arisen since World War II in an era of cheap and readily available energy. Most of the domestic fruit and vegetables that Americans consume are grown in specialized growing areas like California where large highly mechanized farms have achieved a remarkably high productivity through the application of energy- and capital-intensive farming technologies. The produce is sold, transported, processed, and packaged, then transported again, resold, and retransported, until eventually it reaches the supermarket shelves. Four times as much energy is consumed in processing and distributing farm products as in the actual planting, cultivating, and harvesting of the crops.[1]

Just as most of the energy consumption and other costs of this mass-distribution system lie beyond the farmer's gates, so do most of the profits: of every dollar that consumers pay for fruit and vegetables, only 30 cents gets back to the original grower.[2] Furthermore, the increasing cost of fuel for this long-distance system has, over the last decade, led to increases in the prices of fresh fruit and vegetables that have far outstripped the increases in both other agricultural prices and the general cost of living.[3] In addition, this system has not only made the farmer dependent on distant markets, it has also made cities, metropolitan areas, and even entire States dependent on food that may be grown thousands of miles away.

For example, New England now imports between 85 and 90 percent of the food it consumes.[4] The New Hampshire Food Policy Study Committee recently concluded that their State "would find itself hard-pressed for adequate food for its citizens within 7 to 10 days of a serious oil embargo against the United States."[5] According to the U.S. Department of Agriculture (USDA), between May and October 1978 (the local growing season) New York City imported almost 8,000 truckloads of lettuce and other vegetables from California, produce that could have been grown locally. These transcontinental shipments consumed 6 million gal of diesel fuel and added 15 cents to the price of each head of lettuce; if the quantity of lettuce imported from California had been grown within 200 miles of New York City, the Nation would have conserved almost 130,000 bbl of oil, and the consumer would have saved 14 cents per head of lettuce.[6]

At the same time that prices to the consumer are rising, the relative return to the farmer is falling. Small-scale farmers, who are unable to take advantage of economies of scale, are particularly hard-hit by the current cost-price squeeze and are finding it increasingly difficult to break even. As a

[1] Colin Norman, *Soft* Technologies, *Hard* Choices (Washington, D. C.: Worldwatch Institute, June 1978), p. 25.
[2] A. Schumacher, et al., "Technologies for Direct Marketing," OTA working paper, pt. I, p. 14.
[3] Ibid.
[4] Neal R. Peirce and George M. Hatch, "Preservationists Seek Government Help as Farmland Gives Way to Developers," *National Journal*, vol. 12, No. 33, Aug. 16, 1980, p. 1,359.
[5] Neal R. Peirce, "Gardens in the City," Washington Post, Aug. 28, 1979, p. A13.
[6] Donald S. Leeper, "Lettuce: Food, Money, Energy," New York Times, May 14, 1980, p. A27.

result, the United States loses an average of 36,000 farms each year,[7] many of which are abandoned or (if they are near expanding urban centers) sold to developers. Almost 1 million acres are "paved over" each year, and often these are precisely the farmlands closest to the consumer. (See the discussion of farmland retention in the "Federal Policy" section at the end of this chapter.)

[7] Bernard Taper, "The Bittersweet Harvest," *Science 80*, vol. 1, No. 7, Nov. 1980, p. 79.

Alternatives for Direct Marketing of Local Farm Products

Many of the vegetables imported from California and other distant growing regions have been and can again be grown much closer to the major metropolitan areas in the Midwest and East. The primary barrier to small-scale local agriculture is limited access to markets: the mass-distribution system is geared to large-scale production, and distributors are unwilling or unable to deal with small lots from local producers. An alternative to the current distribution system is direct marketing of local produce to local consumers by the farmers themselves.

In a recent survey,[8] USDA has identified five major methods of direct farmer-to-consumer marketing:

- pick-your *own,* in which consumers go to the farm, harvest the crops they want, and transport the product to their own homes; this method usually means the lowest prices, but is least convenient to the consumer;
- *roadside stands and farm stores,* which are essentially retail outlets similar to the greengrocers of the past, involve some additional operating costs for the farmer but, since they are located on or near major highways, are more convenient to the consumer;
- *famhouse sales,* the most common method, is similar to the last method but uses the farmhouse or another available farm building instead of a specially built and maintained structure;
- *door-to-door,* which offers the best service to the consumer but involves the greatest inconvenience and transportation costs for the farmer; and
- *@die farmers' markets,* at which a number of farmers offer their products at a convenient centralized location; this method will be the focus of the balance of this chapter.

The USDA study found that only 15 percent of the farmers in the six States surveyed sell their products directly to consumers, and that only 6 percent of these farmers do so through farmers' markets. However, USDA also found that farmers' markets were "most advantageous to small farmers and those who do not have access to heavily traveled public highways or are located 10 miles or more from cities. "[9] As a tool for local development, as well as an alternative marketing system, farmers' markets and other direct-marketing strategies offer the following advantages over the current mass-distribution system:

- they can provide consumers with fresh produce, of equal or higher quality and at equal or lower prices than the produce at the local supermarket, without requiring transportation to and from the farm;
- they can provide area farmers with a strong, reliable local market where they can get a higher return on their land and labor by eliminating the many processors and middlemen who normally stand between food producers and food consumers; and
- they can improve the economic health of local agriculture by allowing farmers to diversify their crops and keep their land in production, by encouraging them to adjust their production to local demands, and by giving

[8] Peter L. Henderson and Harold R. Linstrom, Farmer-to-Consumer *Direct Marketing in Six* States (Washington, D. C.: U.S. Department of Agriculture; Economics, Statistics, and Cooperative Service information bulletin No. 436, July 1980).

[9] Ibid., pp. 1 and 4.

them an incentive to adopt new and more efficient farming strategies and technologies that will both decrease their costs and increase their productivity.

This chapter draws on information gathered from six different farmers' markets around the country: Rutland, Vt., Morehouse Parish, La., Ravinia, Ill., Boston, Mass., Baltimore, Md., and Seattle, Wash. The diversity and success of these markets is evidence of the vitality and adaptability of the farmers' market as a technology for food distribution and local development. To make this survey as useful as possible, both for immediate analysis and for the benefit of communities that might wish to establish their own farmers' markets, the experiences and problems of these six markets are presented as case studies, with emphasis on the following points:

- How did the need for the market emerge?
- Who took the initiative in establishing the market, and what were the first steps taken?
- What organization and purposes were decided on? How is the market run, and by whom?
- What site was chosen, and how? What facilities are available?
- How were local farmers recruited?
- How were customers attracted and retained?

The diverse origins of the six farmers' markets show the range of local needs and interests such markets can address, the variety of groups and agencies whose initiative or cooperation can help get them started, and the number of avenues by which they can develop. Despite this diversity in motive and development, however, the results have been much the same in each case: a valuable service to the residents of the local community, and a stimulus to small-scale farming in the surrounding countryside. The six markets are therefore considered collectively in addressing the following questions about the performance and impact of the farmers' market:

- What have been the economic results and benefits?
- What changes have farmers made in land use or techniques?
- Have consumers' tastes and concerns changed farmers' production or methods?
- What additional changes in farming technique or technology could further improve small-farm productivity and profitability?
- What critical factors seem to have the most effect on the success or failure of a farmers' market?
- What recommendations for other communities or for Federal policy emerge from the experiences of these farmers' markets?

Farmers' Markets: Six Case Studies[10]

Rutland, Vt.

By the close of its sixth season in 1979, the Rutland County Farmers' Market had grown from a hesitant enterprise located in a church parking lot to one of the largest and most successful markets in northern New England, a community activity that promotes the welfare of the region's farmers and townspeople alike. Three factors seem to be most responsible for the market's success: 1) at the outset, producers and vendors organized themselves into a formal association with a defined set of purposes; 2) the association found and held onto an appropriate central location that would ensure the market's commercial success; and 3) the design and operation of the market responds to the social and economic needs of a diverse cross-section of both the urban and rural communities, thereby ensuring its integration into the social fabric of the region.

The original impetus for the market came from the Rutland Opportunity Council, a local Community Assistance Agency, which saw it as a useful extension of its food and nutrition program. (See ch. 4 for a discussion of other activities of the Community Food and Nutrition Program of the Community Services Administration.) The council recruited local farmers and community gardeners, who then incorporated themselves with

[10]Material in the following case studies is based on Schumacher, et al., op. cit., and particularly the annex, "Five Case Studies."

the State of Vermont as a nonprofit agricultural cooperative—the Rutland County Farmers' Market—with bylaws, a board of governors, and a set of clearly defined purposes:

- to provide a marketplace for local growers to sell their crops and for area craftspeople to sell their wares;
- to provide the consumer with quality local produce and handmade goods;
- to eliminate the need for a middleman, thereby providing a higher retail dollar for the farmer/draftsperson and a lower purchasing price for the consumer;
- to provide consumers with the assurance of quality they have come to expect in Vermont produce and crafts;
- to provide a festive marketplace that will add color and diversity to the city, benefiting local merchants and townspeople alike; and
- to Provide a vehicle in which the rural and urban qualities of Rutland County can blend in harmony.

Membership in the market is open to anyone from the community; those selling in the market are automatically members, and other supporters must pay a membership fee. The 10-member board of governors is elected by the general membership at an annual meeting, usually in April. All final decisions are taken by the board, but it takes its direction from standing committees for such things as entertainment, children's activities, and advertising.

Seasonal or daily fees are collected from the farmers and vendors and applied to operating costs. The fees range from $30 to $100 seasonally, or from $3 to $10 daily, depending on the size of the table or space used. In 1979, the operating costs for the market ran to about $6,000, including insurance, rent, and office expenses. The two biggest items were advertising costs and the salary of a paid coordinator. The Rutland experience shows, however, that a good coordinator is perhaps the best investment a farmers' market can make. Theirs began working for the market 2 years ago as a CETA worker, but is now paid out of market funds. His job includes allocating market spaces, collecting fees, coordinating various market activities, keeping records of gross sales in order to evaluate the market's growth and economic impact, and arranging for publicity. The market also provides a paid coordinator to arrange activities for children while their parents shop.

For its first 3 years, the market was located in a church parking lot outside the central business district, and business was so poor that on some days farmers went home having sold nothing at all. In 1977, after having sold a number of merchants on the idea of a Saturday market on the street in front of their stores, the market convinced the Board of Alderman to let them use downtown Center Street. Traffic was blocked off and vendors set up their tables in front of the stores, and market business improved dramatically. Because of continued resistance from the mayor and a few businessmen, they were forced to move the next year to their present location in Peoples Park, about 200 yards from the Center Street site, but the results were the same. The downtown locations were centrally located, highly visible, and provided more room for both vendors and customers. Local merchants now realize that they benefit from the market's overflow, and the outcome has been not only a more successful farmers' market, but a stronger and more mutually supportive relationship between the farmers and craftspeople, the local business community, and the consuming public.

For farmers in Vermont, where 95 percent of agricultural output consists of dairy products, the farmers' market provides a market where none existed before. Many were new to fruit and vegetable farming, having switched to them because of these new markets, or had previously relied on produce for only a marginal portion of their farm income. When they saw the high return they could get from selling produce at or near retail prices, the latter group began allotting more of their time, energy, and land to this part of their farming operation, which they now view as a major factor in their financial solvency. Some of these farmers now gross as much as $1,000 per week from their direct-marketed produce, having almost doubled their income from it in each succeeding year.

In addition to fruit and vegetables, the Rutland County Farmers' Market also offers local maple products, honey, flowers, and herbs, as well as baked goods, pickles, jellies, and jams. Local artisans—many of them retired senior citizens—sell

handmade crafts such as needlework, jewelry, wooden toys, and pottery. To attract customers, the market distributes a small advertising booklet through local hotels and restaurants and uses weekly newspaper ads and hourly radio spots on market day. The market also sponsors live entertainment by dancers, theater groups, musicians, and mimes, who are allowed to pass a hat among the crowd of tourists and townspeople.

The result is an enterprise that responds to a cross-section of needs within the community and brings significant benefits to local farmers and consumers alike. The broad nature of the market's appeal may explain why it has succeeded where other community development projects—a food co-op, a women's health clinic, and a community cannery—have failed, its benefits as well as its appeal seem to cross political, occupational, age, and sex lines.

Morehouse Parish, La.

Morehouse Parish is a cotton-raising county in northeastern Louisiana. Of its 33,000 people, 18,000 live in the principal city of Bastrop, where a garment factory, two papermills, and a chemical plant are the primary employers.

The Bastrop Farmers' Market was set up by the Morehouse Parish Vegetable Producers Association as an outgrowth of a comprehensive small farms program initiated 20 years ago by the county extension agent. At that time, a study done by a consulting group, Doanne Agriculture, showed that 1,005 of the 1,426 farms in the parish contained fewer than 100 acres, and that cotton was the main source of income for these farms. Often the land was not even in one location, and over the years farmers had found it increasingly difficult to extract a decent income. Some were leaving for employment in local industries; others were forced to rely on welfare or social security. Overall, the economic outlook for the county was bleak unless the small farms could somehow be made more profitable.

One of the recommendations of the Doanne study was that small farmers should consider vegetable crops as an alternative to cotton, since vegetables offered a higher return per acre. However, a number of problems had to be solved. Not only did most local farmers lack experience in vegetable farming, but more importantly the local marketing system at the time consisted of only a few roadside stands and door-to-door peddling. Morehouse Parish farmers were also reluctant to change from their traditional cotton crop to commercial vegetables.

Recognizing these problems, the county extension agent began a reeducation program. He used community and neighborhood meetings to discuss vegetable production, set up demonstration plots in principal communities of the parish, and made numerous farm visits to discuss vegetable production with individual farmers. A number of the farmers began growing vegetables and entered into contract marketing agreements for cucumbers, tomatoes, and okra; but their return per acre was still low, and participation began to fall off.

Faced with this situation, the county agent and an extension service specialist conducted a marketing survey that showed that sufficient local demand for local produce existed. What was needed was to bring potential consumers and producers together in some kind of a permanent farmers' market. Accordingly, the agent met with the small farmers and together they formed the Morehouse Parish Vegetable Producers Association. To gain community support, they met with Chamber of Commerce members, police jurors, school board members, and other business and civic leaders. The response was enthusiastic. The local Chamber of Commerce bought a tent, which served as the first market in 1972. Sales that year totaled about $175,000. The next year the producers leased a vacant building and employed a manager with the help of a $1,600 grant from the State economic development district, and produce sales increased to $400,000.

The success of the first 2 years proved the need for a permanent market location. With the support of the Chamber of Commerce and a State Legislator, the Morehouse Parish Vegetable Producers Association received a grant from the Louisiana Department of Public Works to build a permanent market facility on a site in downtown Bastrop donated by the Parish Police Jury. Measuring 40 ft wide and 75 ft long, the building includes an office, a large board displaying the day's prices, a walk-in cooler for storing surplus produce over-

night, and pea and bean shellers with which customers can process their purchases on the spot.

Today, the market continues to operate smoothly and with increasing benefits to area farmers, who exhibit an uncommon degree of cooperation. To prevent flare-ups over prices or unreasonable dumping, a pricing committee sets scale-weight and bulk prices for the produce, based on the prevailing wholesale and retail prices; during peak season the prices sometimes change daily. Moreover, a farmer will commonly drop his produce at the market and arrange for another farmer, who has more time to spend at the market that day, to sell his goods while he returns to his farm tasks. Finally, the members of the Morehouse Parish Vegetable Producers Association have realized significant savings by informally sharing farm equipment and by formally participating in cooperative purchases of seeds, herbicides, and pesticides. Savings from these bulk purchases range between 30 and 60 percent.

The association has over 100 formal members, from teenagers to senior citizens. Annual membership costs $5; there is a daily market fee of $2 for nonmembers and $1 for members, with exemptions granted to senior citizens. More than 400 families, however, use the farmers' market to sell their produce at one time or another during the year, and sales continue to expand. One 80-year-old part-time gardener made over $1,000 from a half-acre plot of tomatoes; another family earns a return of about $1,000 per acre from the peas, corn, and collards they truck into Bastrop.

Introducing such a small farm program has necessitated a long-term agenda for teaching adults a new set of skills. The county agent continues to provide technical assistance to help farmers in expanding their operations and responding to consumer tastes. As a way to further their education, farmers have gradually been given more and more responsibility for seeing that the market system functions smoothly. They have learned to plan and cooperate by serving on the market's pricing committee, and have developed leadership skills by having to rotate in the paid job of market manager. Despite these efforts, however, the full transition to a stable, self-reliant community with a healthy, small-scale agricultural base is still some years down the road—perhaps even into the next generation.

In recognition of the fact that the future of local small-scale agriculture rests with the young, the comprehensive small farms program includes a number of projects aimed at Morehouse Parish youth. Through the School Board, the county agent helped to establish a school vegetable farm, a greenhouse complex, a cannery, and a slaughterhouse as extensions of the parish's vocational training program. Moreover, all of these projects are linked with the other parts of the system, so that consumers who purchase vegetables from the farmers' market can have them shelled at the site and then use the modern processing equipment at the community cannery run by the students. Students also sell their vegetables at the market, and plow the revenue back into the school projects. The Morehouse Parish small farm program has thus been a catalyst in developing the community's resources, creating new jobs, and providing vocational training and consumer services.

Ravinia, Ill.

The "Market on the Green" in Ravinia, a northern suburb of Chicago, is one of the most successful farmers' markets in Illinois. Its two principal organizers were local businessmen with offices adjacent to the market, who started the venture in 1978 as a means of drawing more customers to the main business street on Wednesdays. Cooperating with 15 other neighborhood merchants, they made it clear to the farmers that their desire to promote the market derived from what they perceived as a commonality of business interests. As they wrote to the local farmers, "Our committee is formed of local merchants. We all know and understand that you are not coming to Ravinia to please us or sit under our shade trees, but to make *a profit."* A hardworking farmer could hardly ignore their invitation to sell, which included a description of the market's location, facilities, and advertising program, and added that:

> Selling will be done under nearly ideal conditions . . . . Ravinia is in the center of 100,000 affluent families in Highland Park, Glencoe, Deerfield, and Northbrook . . . . We learned last year that the buyers expect two things: top quality mer-

chandise and a festive atmosphere. It is up to you to provide merchandise of the highest quality. It is our job to provide the festive atmosphere.

The organizers were keen to ensure the quality image of their market. They urged that farmers bring in only their best tasting, top-quality produce, for which they are rewarded with above-supermarket prices. At the farmers' market in neighboring Skokie, a less affluent community than Ravinia, there is a demand for larger volumes of more ordinary produce, so the farmers have an alternate market for seconds. There are also farmers' markets in Elgin, Northfield, and Evanston—all within 25 miles of Ravinia—but the Ravinia market does not directly compete with them, primarily because of its emphasis on and reputation for superior quality.

This demand for quality has had an interesting effect on local agriculture. Ravinia's consumers, who are concerned with freshness and wholesomeness, tend to question the farmers about their use of fertilizers and pesticides and are willing to pay a premium price for organically grown fruits and vegetables. As a result, some local farmers are adopting organic principles and methods to please their customers, and most of the farmers are changing their choice of seed varieties to meet the retail demand for quality and taste, rather than the wholesale demand for shelf-life and appearance. They now earn about 50 percent more than they would by wholesaling and enjoy a far more secure livelihood.

Some 2,500 persons shop at the Ravinia Market each Wednesday in season, some coming from as far as Chicago and Wilmette, 20 miles away. Sales average about $6 per customer; for the 17 participating farmers, this works out to nearly $1,000 gross sales per week, a sufficiently high return to bring two farmers from Wisconsin and one all the way from Michigan.

The self-interest of the local merchants and their ability to organize themselves played a major role in the success of the Ravinia Market, and they too have increased their business on Wednesdays, some by 20 percent. They realize, however, that without the farmers none of this would be possible, and they offer a number of tips to farmers who are thinking of selling their produce in a farmers' market:

- Make sure that the location of the market is in a traffic area and not in some God-forsaken spot outside of town.
- Be sure that you are not used to upgrade or update or revitalize a downtown district that is obviously on its way down and out.
- Be sure that the farmers' market is amply supported by promotion and advertising.
- Be very sure that you are not competing with wholesalers or fly-by-night middlemen or summer students who buy their produce on the wholesale market and come to the farmers' market for a quick profit.
- Emphasize quality and freshness, and sell your produce just as high as the nearest supermarket. Customers come for quality, not price.

Boston, Mass.

Like the Bastrop Market in Louisiana, the farmers' market in Boston–actually a network of six markets in different neighborhoods—came into being through the cooperation of producers' groups and government agencies. The original idea seems to have come from the Boston Urban Gardeners (BUG), a nonprofit group organized in 1976 to promote community gardening and other forms of urban food production. BUG, which coordinates the activities of existing gardening groups and programs, sought to better meet the needs of urban gardeners in Boston, one of which was for a market at which to sell their produce.

At about the same time, the Division of Agricultural Land Use (DALU) of the Massachusetts Department of Food and Agriculture (Mass Ag) had identified a number of rural groups who were mobilizing to revitalize Massachusetts agriculture and to preserve the State's existing (but rapidly vanishing) farms by making their operations more profitable. In 1976, a Farmers' Market Task Force was formed by representatives of Mass Ag, DALU, the State Department of Community Affairs, and the State Legislature, with the *function* of exploring the government regulations relevant to marketing the produce of local farmers, as well as strategies for lowering the cost and improving the quality of the food distributed to urban residents.

A third group was the Massachusetts Federation of Farmers' and Gardeners' Markets (MFFGM), a nonprofit organization dedicated to revitalizing local agriculture through direct marketing strategies. MFFGM, which issues a regular newsletter called The Mass Marketeer, was interested in the idea of a farmers' market in Boston because they felt that its potential high volume and high prices would attract farmers to the direct-marketing movement.

These diverse groups and agencies were brought together through the efforts of the Center on Technology and Society (CTS), a nonprofit organization that had worked out a method of solving problems by linking up different networks of human activity to achieve a particular goal. CTS's executive director describes "networking" in the following way:

> In this strategy, one or two individuals act as facilitators identifying individuals and groups with similar concerns and complementary resources and linking them together in collaborative efforts as well as in sharing information and moral support.

In late 1977 CTS began to develop a networking strategy to implement an alternative food distribution system for Boston's diverse neighborhoods, and in 1978 DALU hired the firm on a 12-week, part-time consulting contract to set up a farmers' market in Boston that same summer. By bringing together independent groups with interlocking needs and interests, CTS played midwife to a model system of big-city farmers' markets.

CTS and DALU held a strategy meeting with representatives of an antipoverty agency, two county extension services, a local community development corporation and—very significantly—two local growers. Although these diverse organizations and institutions all shared the overall goal of establishing a farmers' market in the Boston metropolitan area, they disagreed on exactly where it should be located. Since no centrally located, accessible compromise site could be found, it was decided, reluctantly at first, to establish three different markets during the first year.

Following are profiles of the three communities that served as sites for the Boston farmers' markets in the summer of 1978:

- Roxbury lies in the heart of the city, and has a population of 63,000, almost all of whom are black. Its population has dropped by 26 percent in the last 10 years, in part as a result of the physical deterioration of the area. Median family "income is $6,588, with 45 percent of the families under $5,000. It has the reputation of being a "high-crime area."
- The South End contains Boston's Chinatown and is the home of a number of ethnic groups, with about 36 percent of its 25,000 population being of foreign stock. Median family income is $6,532, compared to a median of $9,133 for all of Boston.
- *Dorchester* has a population of about 180,000, with a slightly higher than average median family income of $9,300. Fewer than 20 percent of families have an income under $5,000.

The actual market sites were as diverse as the communities that hosted them. Dorchester Gardenlands Preserve, Inc., the community development corporation that sponsored the Dorchester market, arranged to have a portion of their main street blocked off each Saturday morning. The farmers then parked along the street and sold directly from their trucks. This was the most elaborate operation, requiring one traffic patrolman to direct traffic. In the South End, the sponsor was a tenants' group, the Methunion Tenants Council, which owned a parking lot next to a local restaurant. This parking lot served as the South End Farmer's Market. The Roxbury Farmers' Market was located on a 4-acre abandoned lot owned by the Boston Redevelopment Authority, which leased it to the Roxbury organizers free of charge. However, the lot contained numerous potholes, frost heaves, and piles of rubble; its depressing appearance, and' the area's bad reputation, discouraged a number of farmers from participating.

To recruit growers to sell their produce at the markets, DALU's assistance proved invaluable. They put Boston organizers in touch with prospective growers through the *Greenbook,* an annual directory of Massachusetts growers that lists the farms and what they produce. With little money for mass mailings, CTS and a group of volunteers sent out a copy of a typewritten letter to

more than 200 local farmers in May. They also spread information through local newspapers, agricultural bulletins, and selected newsletters, including MFFGM's Muss *Marketeer*.

The Dorchester Farmers' Market opened on Saturday, July 8. It was followed by Roxbury on July 14 and the South End on July 21. Table 18 gives a summary of the economic performance of the three markets during their first season.

Opening day in Dorchester saw only one farmer selling during the first hour, and consumers immediately bought him out. The farmer was interviewed by a local television station, and commented enthusiastically about how fast he was selling his produce. By the third week of operation, seven growers were selling their produce at the Dorchester Farmers' Market, most of whom said they came to Dorchester after seeing the television interview. In Roxbury, the market had to struggle from the very beginning and was eventually forced to close prematurely because of poor consumer and grower participation. Part of its problem was a Friday morning schedule, which turned out to be inconvenient for both shoppers and sellers.

The South End Market, on the other hand, was scheduled on Friday afternoons from 3 to 7 p.m., which accommodated the working population that had been excluded by the Roxbury market's early morning schedule. The schedule also appealed to growers, because it allowed them enough time to travel to Boston without getting tangled in the rush hours.

For their part, produce growers were attracted to the Boston farmers' markets because they provided a workable alternative to selling wholesale. One 63-year-old farmer from Tully, Mass., drove 140 miles round trip each week to sell at all three Boston markets. In an interview in the Boston *Herald-American,* he called them a "Godsend" and said they probably made the difference in his decision not to give up farming. In all, 26 growers participated in at least one of the 36 total market days held in Boston during the summer of 1978. During the following winter, informal questionnaires were sent out to more than 200 Massachusetts growers to find out how responsive farmers' markets were to their needs. Of the farmers who replied, almost all were impressed by the amount of produce they could sell in a short period of time and the overall volume of sales they had experienced. Many growers were reluctant to discuss exact figures, but average gross sales on any given market day appear to have ranged from $200 to $500, with occasional sales as high as $800. Sales were good enough, in fact, that a number of growers said they wanted more urban markets on other days of the week.

That winter, four new communities in the greater Boston area began planning to open their own markets in 1979, and new communities were advised to schedule their markets on each day of the week except Sunday. One of them was located in the affluent suburb of Brookline, in order to attract those growers who had been put off by locations in poor neighborhoods. CTS felt that once

Table 18.—Boston Farmers' Markets Summary, 1978

Market	Estimate of total sales	Seller's fee	Best selling items	Estimated customers/market
Dorchester				
Saturdays (9a.m.-1p.m.)				
July 8-Oct. 7(14 weeks)	$20,000	$2,$5,$10	Fruit, corn, salad greens	200-300
Roxbury				
Fridays (9 a.m.-1 p.m.)				
July 14-Sept. 8 (9 weeks)	$3,500	None	Corn, beans, tomatoes	100-200
South End				
Fridays (3 p.m.-7 p.m.)				
July 21-Oct. 13(13 weeks)	$10,400	None	Corn, beans, fruit	150-250

Total number of market days (all three markets): 36
Average sales per market: Dorchester ($1,500); Roxbury ($390); South End ($800)
Average sales per week at all three Boston markets: $942.00
Total estimated customers buying at the three Boston farmers' markets, 1978: 7,450

SOURCE: Office of Technology Assessment.

those growers ventured into Boston, their fears would be overcome and they would visit some of the other markets in the city. In 1979 all but one of the six markets had successful seasons, and many of the 40 or 50 participating growers said it was the best year they ever had. Five of the six markets were scheduled to return in 1980.

Baltimore, Md.

The idea for Baltimore's market came from a single consumer. In 1976, at one of the mayor's sounding-board meetings, a local citizen raised the question of what to do about skyrocketing food prices at the grocery store. This came at a time when food prices had been rising steeply for 3 years, far outstripping inflation in other sectors of the economy. "What we need," the citizen suggested, "is a good old-fashioned farmers' market, where people could buy direct from the farmer and eliminate the middlemen. " Intrigued by the idea, the mayor directed the city's Office of Promotion and Tourism to see what could be done about establishing a market.

Baltimore is fortunate in having a strong-mayor system and a history of active, effective mayors. In this case, the mayor's stamp of approval was the key to securing the cooperation and coordination of the various city agencies and their respective bureaucracies, a requirement for establishing any successful farmers' market.

The site chosen for the market, near the old fish market, turned out to be a natural. Parking space would be available for hundreds of cars, and a city college next to the site would provide water and restroom facilities for the farmers. To get farmers interested in the project, staffers from the Office of Promotion and Tourism got advice and names from Maryland's county extension agents and then went from farm to farm making personal contacts. Letters were then sent out to the farmers telling them about the facilities of the market and the details of its operation. In the first year no fee would be charged, and participants would not need to prove they were really producers rather than wholesalers in disguise.

To draw customers to the site, organizers sent out press releases to radio stations and newspapers, which run public service announcements and feature articles about the market, including tips to consumers on what to look for and how to prepare fresh produce when they get it home. They also arranged to provide both entertainment and ready-to-eat food each week, but after the first year's success the entertainment was canceled—customers came in such numbers that the space that had been used by the entertainers was needed to accommodate the heavy flow of people through the market area.

Unlike other cities, Baltimore has not done an evaluation of their market, and no official data has been collected on the gross sales or the volume of produce being moved. However, the rising number of farmers who drive their trucks to the market (which increased from 12 in 1977, to 70 in 1978, to approximately 100 in 1979) is some indication that they find the market profitable. Most of these farmers have holdings of between 50 and 300 acres, and many have long-established relations with wholesalers or a roadside stand of their own. For these farmers to take on the additional burden of planning trips to the Baltimore market on Sundays, the profit margin of this method of direct marketing must be considerably more attractive then their other options. Compared to running a roadside stand, the city market offers farmers the chance to move a larger volume of produce in a shorter time and with lower overhead costs. Rough estimates, based on the number of empty bulk containers at the market, place the average Sunday gross sales in the range of $700 to $1,000 per farmer, with several farmers grossing $2,000 to $3,000 per market day in peak season.

For the farmers, there is no question that the market works. On the consumer side, subjective evidence and a casual survey of prices indicates a similar positive benefit. A 1979 price comparison found that farmers' market prices were, on average, about 30 percent below those in nearby supermarkets. A large number of consumers spread the benefits over the entire year by buying in bulk and putting food up for the winter by canning and freezing. It was not uncommon to see produce carried away in large plastic trash bags.

The success of Baltimore's city-organized farmers' market shows that, given the right conditions, mayors and city agencies are capable of responding

quickly and effectively to the needs expressed by their constituencies. Its example might encourage other groups and cities to develop this alternative and supplement to the present mass-distribution system of food marketing.

In contrast to Baltimore's informal system, the history of city-run markets housed in *permanent* facilities indicates that (over time) large-scale, institutionalized farmers' markets are subject to a number of economic and political pressures which can change their character and the function they serve in the community. An example can be found in the next case study, the Pike Place Market in Seattle, Wash.

Seattle, Wash.

The conditions that led to the establishment of the Baltimore Farmers' Market in 1976 are similar to those that led to the creation of Seattle's Pike Place Market 69 years earlier. Food prices had jumped 30 percent and the Seattle *Times* placed the blame on the city's food trusts, commission houses, and wholesalers. A city councilman, claiming that "the average man was the victim of organized greed," called for the creation of a public market where farmers could sell directly to consumers. The Seattle City Council eventually passed an ordinance establishing a market at Pike Place, which was a newly constructed roadway at that time. The market was to represent the "little guy"—the city resident, on one hand, and the local farmer, on the other, both of whom felt that they would benefit by eliminating the middlemen.

The Pike Place Market was an instant success, but over the years its profitability attracted developers, entrepreneurs, and wholesalers, who gradually encroached on the control and success of the small farmers. The market was plagued by corruption in the 1920's and by farm foreclosures during the Depression. A more serious reversal came during World War 11 with the internment of Japanese-Americans on the West Coast, many of whom were farmers; the number of farmers in the Seattle region plummeted by 65 percent. During the postwar period, housing developments and industrialization–much of it due to the growth of Boeing-began "pavin$_g$over" agricultural land. Between 1945 and 1975, farmland in King County shrank from 165,000 to 55,000 acres.

The number of farmer-vendors participating in the market gradually declined, and by the 1950's its operation was no longer bringing any revenue to the city. Its buildings began to fall into disrepair; health, fire, and building code violations cropped up; and the blight spread to property surrounding the market.

The Pike Place Market was saved from extinction by an initiative passed by Seattle voters in 1971, which called for the creation of a 7-acre Market Historical District to preserve the market and its surroundings. Although the sale of produce by local growers was given the number-one priority by the historical commission, however, no farmers were represented on the commission itself or on the Pike Place Preservation and Development Authority (PDA), which carried out the actual rebuilding of the Market.

PDA's general approach has been to purchase buildings from the city and then obtain development financing through government loans and grants as well as through the sale of tax-exempt bonds. By the end of 1977, private investment in Market redevelopment had reached $13.5 million, and total public funding is projected to reach $40 million before redevelopment is completed. Close to $15 million in debt financing will have to be repaid out of rental income over the next 10 to 25 years, and this will mean greatly increased overheads for participating small farmers.

Low-income local residents have also been hurt by redevelopment: there had been 780 units of low-income housing in the area before redevelopment, but by 1978 the number had fallen to 128. Although there are plans to bring the number back up to between 325 and 405, low-income residents felt threatened by the wave of condominium development and the overall "gentrification" of the area, particularly as it affects the market itself.

One of the most visible changes in the market since redevelopment has been a sharp increase in the number of tourists (see figure 25). Producers and consumers alike complain about the tourists: local residents because of the crowds, which make shopping difficult, and local farmers because, as one of them put it, "All they want are T-shirts, jewelry, and *one peach."* In addition, merchants

who must appeal to these single-purchase customers are now choosing only the largest, best looking fruit from the wholesalers, gone are the lower cost, irregular size apples and pears that used to be available for bulk buyers, large families, and those on low or fixed incomes.

As a result, Pike Place Market today has more craftspeople than farmers, more tourists than local residents. It is no longer strictly a farmers' market at all—it has become a general retail market and tourist attraction. Nevertheless, surveys indicate that the market is still perceived primarily as a food market, and that it is the produce that attracts customers. And despite the declining participation of farmer-vendors, the market can still provide consumers with significant savings: a comparison with six local supermarkets showed that farmers' market produce was consistently more varied and less expensive. The produce vendors at the market still draw a large percentage of their customers from the immediate area, and the market's regular customers, who shop there on a weekly basis, are its real mainstay. Significantly, 85 percent of these consumers said that they would buy locally grown produce in preference to trucked-in varieties, if both were available.

Nevertheless, local agriculture in the Seattle area continues to decline. King County's 1,200 farms range from 1 to 100 acres, with an average of 20.3 acres for vegetable farms and 11.4 acres for berry farms. About 80 percent of this acreage is farmed by owners or part-owners, but although 60 percent of the county's commercial farmers earn their primary income from the sale of farm products, approximately 70 percent of them also work at second jobs away from their farms. The current trend among both vegetable and dairy farmers is toward steadily lower production and sales, and a survey conducted by the city in 1974 indicated that many were selling off their land, or were being forced to give up farming on leased lands because of high rents.

To help these farmers, King County has implemented agricultural zoning policies, current-use tax laws, deferred utility assessments, and marketing support for local farm products. None of these measures, however, has stemmed the tide of conversion from agricultural to residential and industrial uses. A ballot initiative to purchase development rights from the farmers for $35 million was defeated in 1978 by 180 votes.

Local farmers, interviewed about the future of small-scale agriculture in the region, were pessimistic. Their own children and grandchildren have no interest in farming, they said, and the young alternative-lifestyle farmers simply don't stick with farming long enough to gain experience. At the same time, however, these farmers also indicated that they were not interested in new farm technologies that would allow them to extend their production (and income) into the winter months–they already work too hard in the spring, summer, and fall, ran the usual response.

The Bulk Commodity Exchange.–The decline of local agriculture has led to concern that the redeveloped Pike Place Market might become a memorial rather than a market outlet for local farmers. One hopeful development has been the Bulk Commodities Exchange (BCE), a wholesale direct-marketing cooperative designed to link small farmers and local consumers by providing an accessible outlet for bulk sales of fresh produce. Incorporated in the summer of 1977 as a nonprofit producer/consumer cooperative, it includes local farmers as well as buying clubs, restaurants, and other institutions. Located in the Market, it was cosponsored by PDA, the King County Office of Agriculture, and the Hunger Action Center. BCE sells its members produce in the same quantities that farmers generally deliver to wholesale houses: a flat of strawberries, for instance, or 50 lb of onions, or 100 lb of potatoes. By the end of 1978, the gross sales had grown from $4,000 to $40,000, the number of participating farmers from 17 to 21, , and the number of consumers' groups from 40 to 70.

The BCE offers a marketing option that has attracted two additional groups of farmers: those who produce too much to sell at farmers' markets, but too little for wholesaler houses, and those who grow mainly for wholesale, but need alternate outlets for surplus cosmetically inferior produce. Small- and medium-scale farmers sell to BCE because it pays them very well, but the arrangement also has advantages for consumers. In September 1979, for instance, the local Safeway supermarket was paying farmers $4.50 case (five dozen ears) of local corn; BCE paid $5.50 per case, marking it up

to $6.60 case to consumers; Safeway's advertised sale price for the same corn was $7.50.

The fact that BCE sells food in bulk is of critical importance, since at least 50 percent of its members purchase significant quantities of fruits and vegetables to put up for the winter. One member, an agricultural extension agent, sees BCE as an important link between small farmers and urban consumers; he would favor Federal support for a network of BCE-type outlets. "We need to encourage our local farming right now," he said. "Transportation and energy costs can be beaten by taking advantage of our local produce. " BCE financing now depends on Community Development Block Grants, but when the grants run out BCE will need to find stable, long-term funding.

Impact on Local Small-Scale Agriculture

In some cases, farmers' markets have created local markets for fruits and vegetables where no market had existed before; in others, they have provided an alternative to the direct-marketing systems that already existed, such as produce stands and door-to-door vending. In both cases, the markets provided higher prices to the farmers than had been available through wholesalers or contract marketing arrangements, in some cases by as much as 50 percent. Average gross sales of $500 or more were common, and in Baltimore and Ravinia some farmers were able to sell over $1,000 worth of fruits and vegetables each market day. Because of low overhead, high prices, and the large volumes that can be sold in a short period of time, this form of direct marketing offers the small-scale farmer a considerable financial opportunity.

In response to the opportunity provided by these markets, local farmers have begun to change their land-use patterns, planting schedules, and farming methods. Farmers who had already produced vegetables and fruits, but relied on them for only a small, marginal portion of their farm income, have begun to allocate more of their time, energy, and land to these crops. One family in Vermont now rents out half of their 200 acres to neighboring dairy farmers, plants 3.5 acres in produce, and uses the rest to extract syrup from maple trees, which previously provided two-thirds of their income. A farmer in Louisiana has made a similar reorganization in his farming operation, renting all but 25 of his 115 acres to a neighbor with a large cotton operation and concentrating all of his energies on growing fresh market vegetables on the remaining land; each of his children is given an acre to work for themselves, from which they receive about $1,000 per year.

Farmers' markets have also changed the planting schedules of participating farmers. They now plant two crops per year, spring and fall, instead of just one as they would under corn or cotton monoculture. They have also learned the importance of staggered planting, in order to assure themselves of a continuous flow of produce and to avoid flooding the market, which would erode their returns. Picking the crops by a certain date can also improve their return—in Morehouse Parish, for instance, the extension agent advises farmers to pick southern peas before September 1, because by that time most consumers have frozen and canned all they will need for that winter.

Local direct marketing has also made a difference in the varieties of crops the farmers plant. Large mechanized operations call for varieties of peas or tomatoes that are easily picked by machine, for instance; processors demand certain other varieties that are particularly suited to canning or processing into catsup or soups; and the mass-distribution system puts a premium on varieties that ship well, have long shelf-life, and look appealing to the supermarket shopper. For the farmers' market, on the other hand, the premium is on quality and taste; appearance and shelf-life are secondary. As a result, farmers in Morehouse Parish plant the pole *variety* of lima bean, which is in greater demand than bush varieties. Because the markets also demand a wider range of vegetables, farmers are able to diversify their plantings and thereby decrease their vul-

nerability to the failure of any one species or variety. In addition, careful selection of early or late varieties can allow the farmer to spread out his harvest, just as he does by staggered plantings–thus, one farmer in Rutland purchases seed for a special early pea variety from a firm in Prince Edward Island, Canada, in order to bring his peas to market in early June, a week or two ahead of other growers. Finally, the careful selection of seed varieties allows the farmer to grow what will sell best, and to adjust his production to local demand and taste.

All of these measures allow the farmers to increase the efficiency of their operations and make the best use of available labor, but the case studies also reveal that farmers are further improving the productivity of their operations by changing their farming methods and adopting technologies that are more appropriate to vegetable farming and direct marketing. This is most pronounced in Morehouse Parish, where farmers have begun an informal program of sharing farm equipment, thereby sharing capital costs as well, and have realized further savings through cooperative bulk purchases of seed, fertilizer, and pesticides. In response to consumers' concerns and premium prices at the Ravinia market, local farmers have begun shifting to organic farming methods, through which they can also realize savings by reducing or eliminating the use of fertilizers and pesticides, and replacing them with such methods as comporting and biological controls.

A number of additional technologies offer the farmer potential methods for extending his growing season, and thus his income, and perhaps even achieving a year-round operation. Black sheet plastic is widely used as a mulch, but it is also an excellent means of warming the soil and achieving early, high-value crops of tomatoes, cucumbers, sweet corn, and squash; in northern climates, it makes possible the cultivation of desirable crops such as cantaloupes and other melons. A second planting of tomatoes in July, staked and heavily mulched, can be protected with a 6-ft, plastic-covered teepee; this solar-heated and frost-proof technique can give an additional month of growth and yield late tomatoes that are very popular with consumers. A raised bed under a glass sash can also extend the growing season, and a larger greenhouse can produce fresh lettuce and salad greens from November through February (see ch. 4). In colder climates, well-insulated root cellars can also provide a simple, low-cost storage system based on historical techniques; in them, farmers can store squash, cabbage, carrots, onions, and parsnips for year-round sale to consumers.

These techniques are, for the most part, more familiar to organic gardeners and alternative-lifestyle farmers than to commercial farmers. And for the most part, these conventional farmers show little interest in technologies for extending their growing season or achieving year-round production. The usual reason given, particularly by farmers in the Seattle area, was that they already felt overworked after 8 months of planting, cultivating, harvesting, and selling produce. What may be needed, however, is a better understanding of available technologies for decreasing costs, increasing productivity, and extending the growing season. The steps taken by the county agent in Morehouse Parish–workshops, demonstration plots, and farm visits—proved to be an effective means of achieving this goal. These same techniques, however, could also be applied to the production of vegetables in solar greenhouses (see ch. 4) and in urban community gardens.

Critical Factors

Public Perception and Participation

If any one conclusion can be drawn from the six case studies in this chapter, it is that the single most important factor in the successful development of a farmers' market is the participation of the local farmers in the planning, design, and operation of the market. The deficiencies of Pike Place as a farmers' market shows that more attention must be given to the farmers' interests and problems, and that they must be consulted and given more responsibility. Of all the various actors in the redevelopment of Pike Place, the producers

were the most vital but the least organized, and thus the least heard from.

In Morehouse Parish, by contrast, the market is operated by the farmers themselves, with the help of the local extension agent. Similarly, the successful market in Rutland, Vt., was organized by the local farmers, who also participate in its governance; spokesmen there attribute the market's success in large part to the fact that the farmers organized themselves into a formal cooperative with a clearly defined set of goals. In Boston, finally, the idea for a network of farmers' markets originally came from a local producers' group, and it was by putting this group in contact with a network of similar organizations that the State government and its consultants contributed to the project.

The Ravinia and Baltimore case studies show that local merchant groups and municipal governments can be effective in initiating a farmers' market, but in other cases these same groups have been barriers to implementing such projects, as will be seen below. The organizers of a farmers' market would do well to make early and close contacts with these groups, however, since their cooperation greatly facilitates the establishment and operation of the markets.

The farmers' markets have been well received and actively supported by the general public. They appeal to and serve the needs of a broader cross-section of the community than do some other local development projects, and the Boston and Rutland markets successfully enlisted community groups and individual citizens in the organization and governance of the markets. The evidence suggests that it is the identity of the market as a food market that is responsible for much of this appeal and support, and organizers should be certain that nonfood activities remain subordinated to this primary function, which should also be the focus of their promotional efforts.

Consumer participation is also important, and in most cases a carefully planned and vigorously pursued program of promotion and advertising can contribute significantly to the market's initial success and eventual self-sufficiency. Informational letters sent to local farmers, followed by farm visits to establish personal contacts, were useful in recruiting producers for the Ravinia and Baltimore markets; their continued participation, however, depended on attracting and retaining customers. Rutland's brochure on the market is one way of doing this, and most of the markets make use of paid advertisements in local newspapers or public service announcements on local radio stations, informing the general public of the market's existence telling them what to look for on a given market day, and in some cases quoting current prices. Media coverage of a market's opening can help to attract both producers and consumers, as happened in Boston. Feature articles in the food section, which Baltimore encouraged through press releases, can serve an additional function by educating the consumer on how to prepare an unfamiliar vegetable or how to make new dishes with fresh produce—a useful tool in a community nutrition program as well as a means for diversifying and strengthening the market for locally grown produce.

Essential Resources

The natural resource base on which a society relies—land, water, etc.—can be utilized to meet its production needs in different ways, along a continuum representing various degrees of centralization. Some regions might specialize in agriculture, while others are used primarily for industrial uses; but such an approach imposes extremely high costs for processing and transportation. Because of rapidly rising energy costs, recent development efforts have concentrated increasingly on creating and developing viable local economies. Implicit in this approach is the need for a system of mixed land use within any given region.

If local agriculture is to be part of this mix, its survival may depend on the existence of local produce outlets like the farmers' market or bulk commodity exchange. By decreasing costs and increasing both productivity and profitability, these local markets can help the small farmer to stay in business and keep his land in productive use. Small farmers outside Rutland, Boston, and Baltimore all testified to the high profitability of the markets and the difference they had made in the solvency of their operations. The farmers' market has had its largest impact, however, in Morehouse Parish, where marginal farmers saw no alternative to the cotton crop. Many of these farmers were

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saved by switching to more profitable vegetable crops and more efficient methods, and by establishing direct access to local consumers who want to buy what they produce.

Farmers will further improve their return if they adjust their production to the varieties or grades of produce that are in demand in a particular community. A market survey or careful recordkeeping can be a great help in making this adjustment. The variety of available produce and the reliability of the producer seem to be important factors in all of the case studies; but in some of the markets quality is the primary consideration, while in others price is more important, and in yet others the consumers are interested in the wholesomeness of organically grown vegetables. Very early and very late produce (May peas and October tomatoes, for instance) are also in great demand and therefore more profitable for the farmer who is willing to adjust his schedule or adopt new methods.

The physical design of the marketplace itself should give primary consideration to the functional use of space. Selling produce off the tailgates of trucks parked on a blocked-off street is the simplest and perhaps the most efficient arrangement. A more permanent facility needs lighting and drainage capacity, as well as a practical layout that facilitates the movement of shoppers and tourists; it also needs outside access in the form of parking and loading areas. Some consideration should also be given to the type of neighborhood in which the market is to be located and the schedule of its operation. Roxbury's reputation as a "high-crime area" discouraged a number of farmers from going there, but the site itself was uninviting and the schedule—Friday morning and early afternoon—was inconvenient for both the farmers and the working people of the community. The Boston network has scheduled its six markets on six different days of the week, so that farmers have a different market available every day except Sunday. Location, layout, and scheduling are all areas where organizers need input from local farmers and consumers.

The Pike Place Market shows some of the pitfalls to be avoided in the redevelopment of existing urban markets. Preservation rather than demolition was the rule in its redevelopment, but the planners appear to have concentrated on exterior appearance rather than on the real functions of the market. Within the Market, the design of sales and storage space seems to have proceeded without sufficient input from the local producers themselves. Moreover, according to some consumer interviews, not enough attention was given to the needs of local shoppers, who complained of crowding, lack of parking, loss of housing and services, and an actual decline in the availability of low-priced produce.

Technical Information and Expertise

Local farmers and gardeners are the main source of expertise, but in several case studies they were unfamiliar with direct-marketing techniques and with the tastes of local consumers, as well as with the methods of fruit and vegetable farming. The local agricultural extension service could provide invaluable assistance in these areas, as it did in Morehouse Parish, and the networking strategies used by CTS in Boston are also an effective way to spread information and experience.

A market survey can determine not only whether sufficient demand exists, but also what crops or varieties will be in particular demand by local consumers. The same information can also be gathered through careful recordkeeping by the participating farmers or, as in the case of the Rutland market, by a paid coordinator. In Ravinia, one of the local merchants who organized the market also serves as an unpaid market master; in Baltimore and Seattle this role is played by municipal employees. In all of these cases the arrangement removes the burden of actually running the market from the farmers, but the Morehouse Parish study shows that the farmers themselves are capable of assuming the management chores. By rotating the post of market master and membership on the pricing committee, this arrangement also contributes to the development of management skills in the community.

The Morehouse Parish example also shows the importance of a comprehensive program of education, information, and training in the techniques of vegetable farming as well as the management of the farmers' market itself. The local county extension agent not only got the local farmers interested in vegetable farming and direct marketing, but has also initiated a training program in the local

school system and is trying to interest the community in running a cannery. Some of the Seattle area farmers suggested the development of similar agricultural apprenticeship programs to train new farmers and reverse the decline in their numbers.

Such training programs might also include exposure to innovative farm technologies that will increase productivity and extend the local supply of produce to a more nearly year-round basis. The lack of interest in these methods on the part of the Pike Place farmers might be overcome by a better understanding of the methods themselves and their potential economic rewards. Networking, as practiced in Boston, might accomplish the same end by bringing farmers together with those who are already familiar with these techniques.

Financing

According to available information, total investment in the Pike Place Market project has already exceeded $50 million. While it may be too early to determine whether the full impact of the redevelopment will justify expenditures on this scale, it would be reasonable to ask whether this use of funds reflects the needs of local farmers or the desires of local residents, and what its effect will be on the future character of the surrounding community. The functions of Pike Place as a *farmers' market* might well have been promoted with a smaller infusion of funds, and the redevelopment financed without placing financial burdens on the farmers in the form of higher rents to subsidize the capital costs of the project.

Judging by the experience of the five other markets, the initial financing needed to set up a farmers' market appears to be quite minimal, depending on whether it is quartered in a permanent facility or whether the produce is simply sold off the back of the farmers' trucks. The real need, at least in the beginning, is for operational expenses to pay the salary of whatever staff is required to coordinate market activities, run the advertising program, and carry out other duties. In the smaller markets, the fees paid by the farmers may be insufficient to cover these costs, but considering the ancillary benefits the markets produce in city neighborhoods, the expenses could reasonably be borne by the municipality, as they are in Baltimore or by the local merchants, as they are in Ravinia. The State grants that paid for the initial operating expenses in Morehouse Parish and the consultant's fee in Boston are appropriate ways to finance startup costs, but the Bulk Commodity Exchange in Seattle shows signs of becoming dependent on the Community Development Block Grants that support its operation, and when these grants run out it will need to find stable, long-term funding if it too is to become a viable, self-sustaining enterprise.

Institutional Factors

The farmers' market represents only a minor economic threat to local wholesalers and mass-distribution retail outlets, and these interests have not been particularly vocal or active in their opposition to the farmers' markets studied in this chapter. In fact, the markets often provide an outlet for farmers whose output is are too small to be of interest to traditional marketing systems. Wholesalers may represent a threat to local producers, however, when they compete unfairly with locally grown products or when they, rather than the small farmers, have a controlling voice in the operation of the market.

Opposition has come, instead, from local merchants and from municipal officials. As was the case in Rutland, store owners often fear that the farmers' market will detract from their business, and for this reason oppose having them on the street in front of their shops. Prior consultation with the Chamber of Commerce and other groups can often do much to allay their fears, avoid their opposition, and even enlist their support. In most cases, the markets had positive impacts on local business, and this information may help to convert the uncertain. In Ravinia, in fact, it was the merchants themselves who organized the market as a way of increasing their business, and in both Rutland and Seattle the markets significantly stimulated the tourist trade. The Baltimore case **study shows that** the municipal government can itself take the initiative in establishing a market. It also shows that the support of the mayor can be invaluable in obtaining the necessary cooperation of various city agencies that might oppose or impede the development of the market—the most likely candidates being Health and Sanitation, Public Works, Zoning, Weights and Measures, Tourism, and Police.

Federal Policy

Background

Like a number of the technologies examined in other chapters of this report, the farmers' market and other means of direct marketing have potential benefits that cut across several national issues; their success or failure can therefore be affected by a number of Federal policies. Energy conservation, for instance, is an important byproduct of the establishment of these markets. Farmers' markets, in turn, are affected by rural development and small farm policies, which are discussed in chapters 4 and 5, respectively. However, Federal policies most directly relevant to the development of farmers' markets are those which concern agricultural land retention and the encouragement of direct marketing. A third related topic, that of the role of the Agricultural Extension Service, will also be discussed at the end of this section.

Agricultural Land Retention[11]

By improving the economic viability of small farms near urban areas, the widespread adoption of alternative technologies for the production and marketing of farm products may help to slow the conversion of the Nation's cropland to nonagricultural uses, a trend that has become a topic of increasing debate at all levels of government. Between 1967 and 1975, according to USDA's Soil Conservation Service, about 24 million acres of rural land—an area about the size of Indiana—was converted to housing subdivisions, highways, reservoirs, parks, and other nonagricultural uses; by 1972, American farmers were planting 50 million fewer acres than they had in 1950.[12]

Recent years have seen a continued net loss of cropland:

> Each year 1.25 million acres are converted to efficient cropland by draining swamps and irrigating deserts, while 0.9 million acres are converted to urban and transportation use. The rest of the 2.2 million acres of rural land which goes out of use yearly is abandoned because it has "low soil fertility and a terrain unsuited to efficient use of modern machinery." A million acres yearly goes into additional wilderness recreation areas and wildlife refuges, and another 300,000 acres goes for reservoirs and flood control. [13]

In other words, for every acre of farmland created (at great cost) from swamps or deserts, an acre of previously useful land is "paved over" or "drowned" and lost to agriculture forever. Often this is precisely the farmland closest to the consumer.

This issue was concealed during the 1950's and 1960's by repeated crop surpluses; by Government payments to farmers to keep land out of production; and by low prices for petroleum-based fuels and fertilizers. In the early 1970's, increasing world demand for U.S. agricultural products and a temporary suspension of Federal set-aside programs led farmers to bring much of the available land back into production. At the same time, rising oil prices have sharply increased the costs of conventional, energy-intensive agricultural techniques. Concurrently, yields have been adversely affected by an increased variability in the weather: 1979 produced a bumper crop, but the 1980 crop was significantly reduced in many regions by heat and drought.

Concern about farmland conversion continues to mount. Some people feel that continued conversion to nonagricultural uses, combined with the deterioration of some of the remaining cropland, may hinder the achievement of the Nation's long-term agricultural production goals. Others point out that although 1.25 million acres are converted to cropland each year, this is usually done by draining swamps or irrigating deserts, which requires a high initial investment and an increased demand on the Nation's energy and water supplies. These views are discounted by those who feel that advances in conventional agricultural tech-

[11] Some of the material in this section is drawn from Jefferey Zinn, "Farmland Protection Legislation," Library of Congress, Congressional Research Service issue brief No. IB78013, May 29, 1980; and W. Wendell Fletcher, "Agricultural Land Retention," Library of Congress, Congressional Research Service report No. 78-177 ENR, Aug. 31, 1978.

[12] Zinn, op. cit., pp. 1, 2.

[13] Julian L. Simon, "Resources, Population, Environment: An Oversupply of Bad News," Science, vol. 208, No. 4451, June 27, 1980, p. 1435.

nology will offset any production losses or cost increases that arise from cropland conversion and abandonment. Still others think that the situation should be studied further before changes are made in Federal policy to deal with the problem on a nationwide basis. Finally, some think that farmland retention is an essentially local or regional problem.

Many State and local governments are currently considering legislation to protect farmland from indiscriminate development, and others have already adopted such measures and implemented a wide range of programs to carry them out. *[4] The Federal Government is also assessing the impact of its own policies on agricultural land retention. The National Agricultural Lands Study, which is being carried out jointly by USDA and the Council on Environmental Quality (CEQ), is scheduled to present its final report in January 1981. USDA, CEQ, and the Environmental Protection Agency have either adopted or are now formulating policy statements in support of the concept of cropland retention. Despite these efforts, however, there currently exists no Federal program to assist State and local governments in developing farmland protection legislation and programs.[15] Members of both the 95th and 96th Congresses proposed legislation to establish such a program.

95th Congress.—In the 95th Congress, the Agricultural Land Retention Act (H.R. 11122) called for a commission to undertake a comprehensive study of agricultural land, and to recommend to the President and Congress methods for instituting a national policy for protecting farmland. In addition, its title III proposed a demonstration program to provide Federal funds and technical assistance to States and localities for testing and demonstrating farmland protection methods during the life of the proposed commission. The National Agricultural Land Policy Act (S. 2757) was generally similar to H.R. 11122. Neither of these pieces of legislation was enacted by the 95th Congress.

The Farm Tax Equity and Family Farm Development Act (H.R. 107 16) was more directly relevant to appropriate technology and agricultural land retention. Its title IV would have authorized low-cost small farm ownership and operating loans, to be made and insured by the Secretary of Agriculture, that would enable small, family, and low-income farmers and ranchers to acquire small-scale alternative farm technologies. Furthermore, its title V ("Farm Marketing Programs") would have authorized funds to support the development of alternative systems for the distribution and marketing of agricultural products. H.R. 10716 was not enacted by the 95th Congress.

96th Congress.—Members of the 96th Congress proposed legislation that was essentially the same as that proposed during the 95th Congress. The Agricultural Land Protection Act (H.R. 2551) would have authorized funds for conducting studies on the issues surrounding the retention of agricultural lands as well as for demonstrating different methods of cropland protection, but it also contains provisions which might encourage the adoption of appropriate technologies by small farmers. It directs the Secretary of Agriculture to conduct a comprehensive study of methods for protecting and improving agricultural lands in and around urban areas, which would set a precedent for including urban food production in the formulation of land retention policies. This Bill also declares that it is the policy of Congress to foster intergovernmental cooperation in making decisions likely to affect the conversion of agricultural land to other uses. After considerable floor debate, the House rejected H.R. 2551 on February 7, 1980 by a vote of 177-210.

Direct Marketing

The central piece of Federal legislation affecting the development of farmers' markets and other forms of direct marketing is the Farmer-to-Consumer Direct Marketing Act of 1976 (Public Law 94-463). The purpose of this Act is to promote "the marketing of agricultural commodities . . . directly to individual consumers, or organizations representing consumers, in a manner calculated to lower the cost and increase the quality of food to such consumers while providing increased financial returns to the farmer" (sec. 3). The Act authorizes USDA to promote direct marketing in three ways:

. continuous surveys in each State to deter-

[14] See Fletcher, op. cit., and *Untaxing Open Space* (Washington, D. C.: Council on Environmental Quality, April 1978).
[15] Fletcher, op. cit., p. 43.

mine the extent of direct marketing and its impact on financial returns to farmers and food quality and cost to consumers;
- financial and technical assistance to State departments of agriculture and extension services for programs to encourage direct marketing; and
- annual progress reports to the appropriate House and Senate committees.

USDA's Economics, Statistics, and Cooperative Service (ESCS), which was to conduct the surveys, has pointed out that the funding–$500,000 in a supplemental appropriation in September 1978—was insufficient for continuous nationwide surveys. ESCS had previously proposed an alternative approach consisting of statewide surveys of between 6 and 10 States annually, periodic surveys of cooperative marketing associations, and supplemental case studies of representative direct-marketing methods to be prepared through research agreements with State experimental stations. The first survey of 6 States was released in July 1980,[16] and ESCS has executed research agreements with 10 State experimental stations for case histories.

Two other USDA agencies have undertaken a joint effort to inform producers and consumers of the potential benefits of direct marketing. The Agricultural Marketing Service, which works with State departments of agriculture on technical assistance programs, and the Science and Education Administration, which works with State extension services on educational assistance, have invited each State to submit proposals for projects to promote direct-marketing methods. Through the end of fiscal year 1978, this program had disbursed $1,948,000 for 22 projects in 23 States.

In conjunction with Cornell University, USDA is also developing a computer planning model to assist farmers in making their marketing decisions. When fed information on a farmer's available labor, land, crops, and other variables, this model will produce a recommendation for the allocation of resources among different marketing methods—the marketing mix—that will maximize the farmer's return on his investment. Farmers are to have access to this computer model through their county extension offices, many of which have already been equipped with computer terminals.[17]

Finally, USDA has also undertaken direct-marketing programs under the authority of the Agricultural Marketing Act of 1946 (60 Stat. 1087), which provides matching funds for State marketing improvement projects, and the Smith-Lever Act of 1914 (38 Stat. 372), which established the Agricultural Extension Service. Of the 35 projects funded under the former Act in fiscal year 1978,4 were specifically related to direct marketing; under the latter, USDA reported in 1975 that "the cooperative extension service agencies in 18 States have established active, continuing direct marketing programs and have published over 100 related informational bulletins."[18] A recent evaluation of these extension service projects found that:

> In general, the direct marketing activities pursued by the cooperative extension service agencies appear similar to those authorized by section 5 of the Farmer-to-Consumer Direct Marketing Act of 1976-for example, 12 of the projects funded under the act involve planning farmers' markets and 11 involve roadside markets. The major difference appears to be that extension service activities are more limited in scope, due to funding constraints.[19]

Issues and Options

ISSUE 1:

Research and Information Gathering.

The Farmer-to-Consumer Direct Marketing Act authorized $3 million for a 3-year program to encourage direct marketing. ESCS subsequently received a supplemental appropriation of $0.5 million in fiscal year 1978 to conduct its surveys (see above), and equal amounts were budgeted in fiscal years 1979 and 1980. In a recent evaluation of the Act, the General Accounting Office (GAO) found that USDA's programs have been effective in

[16] Henderson and Linstrom, op. cit.

[17] Interview with Peter L. Henderson and Harold R. Linstrom, project directors, Impacts of Farmer-to-Consumer Direct Marketing on the Structure and Performance of the Food Delivery System, U.S. Department of Agriculture, Economics, Statistics, and Cooperative Service, Aug. 29, 1980.

[18] *Direct Farmer-to-Consumer* Marketing Program *Should Be* Continued and *Improved* (Washington, D. C.: General Accounting Office, July 9, 1980), report No. CED-80-65, app. IV, p. 36.

[19] Ibid.

aiding the expansion of direct marketing and in gathering a considerable amount of information on the extent and impact of different marketing methods. The report also found, however, that a number of the current projects cannot be completed before the end of the program, and that the full impact of some of these projects will not be measurable for a number of years. GAO concluded that extension of the Act "would help the States continue such projects until (1) the original objectives are reached, (2) the projects become self-sufficient, and/or (3) other sources of fundings can be obtained."[20]

Option 1: Reenact the Farmer-to-Consumer Direct Marketing Act of 1976.—Authorization for current USDA direct marketing programs ended on September 31, 1980. GAO recommends that the Congress continue its support for the Direct Marketing Program for an additional 2- or 3-year period by authorizing such funds as it thinks necessary for existing projects, new projects, and improved program coordination and evaluation. GAO also recommends that a single office within USDA be designated to coordinate direct marketing programs and to serve as an information clearinghouse. Reenactment would allow USDA to initiate new pilot programs, consolidate existing programs, and gather additional data on the impact of direct marketing on local food production, regional food security, energy conservation, income stability for farmers, and agricultural land retention (see below). USDA concurs with most of these recommendations. [21]

ISSUE 2:
Outreach and Information Dissemination.

The effectiveness of the innovative programs begun by the county extension agent in Morehouse Parish suggests that similar extension programs may be beneficial in other communities if they are equally well designed and imaginatively implemented. The Cooperative Extension Service's direct marketing programs have been hampered by inadequate funding, however, and have not as yet reached all regions of the United States.

Option *2:* Expand* the Role of the Agricultural Extension Service in Promoting Direct Marketing.—Should Congress decide to extend the Farmer-to-Consumer Direct Marketing Act of 1976, it may wish to earmark certain funds for use by local extension agents for information and planning projects similar to those in Morehouse Parish and elsewhere. Congress may also wish to direct that the Agricultural Extension Service be given a larger role in disseminating the results of the pilot projects and marketing surveys initiated under the Act or in making the joint USDA-Cornell University computer model available to the largest possible number of farmers. Congress might also direct that the local extension agents and regional extension specialists throughout the Nation be encouraged to supply more information and suggestions for the design of direct marketing projects, and/or that they coordinate their activities with the related local programs of other Federal agencies, such as the food and nutrition program of the local CSA community action agency (see ch. 4 and the case study of Rutland, Vt.).

ISSUE 3:
Agricultural Land Retention.

The development of local direct marketing systems may contribute significantly to the survival of the Nation's decreasing number of small-scale and family farms. The data being gathered by the ESCS should eventually shed light on the impact of direct marketing on retention of local agricultural lands. This issue has national as well as local importance, however, and the results of these surveys, in combination with the results of the joint USDA-CEQ National Agricultural Lands Study, will be of vital interest in the formulation of future Federal policy and programs.

Option 3: Investigate the Impact of Direct Marketing on Agricultural Land Retention.—Should Congress decide to extend the programs initiated under the Farmer-to-Consumer Direct Marketing Act of 1976, it would allow ESCS to complete direct marketing surveys in every State, instead of the 18 to 26 currently proposed, and to

[20] Ibid., p. 15.
[21] Ibid., pp. 15-17.

complete the supplementary case studies being carried out by selected State experimental stations. Congress may want to review the results of the completed reviews and the results of the forthcoming "National Agricultural Lands Study," and to consider the implications of both studies in the formulation of future legislation, so that Federal policy and programs will be designed in such a way as to achieve maximum benefits in these interrelated areas.