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Policy Considerations for Commercial Agriculture and Rural Development

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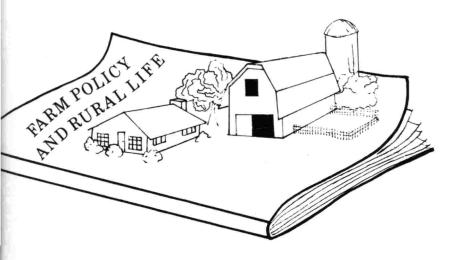
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Policy Considerations For ommercial Agriculture And Rural Development



The University of Tennessee Agricultural Experiment Station John A. Ewing, Dean Knoxville

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Policy Considerations For Commercial Agriculture And Rural Development

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INTRODUCTION

Public agricultural policy revolves around two interrelated problems: resource allocation and income distribution. These two problem areas create conflict among groups because unequal gains and losses occur as the result of inevitable changes in the dynamic agricultural industry. Therefore, an integral policy problem is how to deal with conflict among special interest groups.

Another important point that must be recognized is the impossibility of deriving a policy or program that will please all concerned. Many emergency type programs have become "institutionalized" and other programs have become enmeshed with the special interests of pressure groups working through the legislative arena. This has led to conflict, and in many cases, the limitation of program success.

Ideally, the problems that confront agriculture and the rural community should be separated into two parts. The first part deals with the problems facing the commercial agricultural sector. The second part deals with the economic and social problems of the rural community. Any attempt to alleviate problems in these areas should be separated so that policies and programs can be directed to the unique problems of each.

A general goal of public policies alleviating problems in the commercial agricultural sector should be to promote a highly-efficient commercial agricultural sector in order to provide abundant, high-quality food and fiber at a reasonable cost to the consumer. The specific objective of the commercial agricultural sector should be to receive a rate of return for resources employed in agriculture that is comparable with the returns to similar resources employed in other industries.

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³Associate Professor of Agricultural Economics, Department of Agricultural Economics and Rural Sociology. A highly-efficient commercial agriculture will continue to release agricultural laborers to enter other industries and contribute to a higher level of living for all citizens. Also, an efficient and prosperous agriculture will be able to provide commodities for trading with other nations.

The second part of this report considers the special problems of the economically-depressed rural people. The people discussed in this section include the low income or limited resource (noncommercial) farmer, the aged, the handicapped, the laborers, and the youth who live in rural communities. Public policies that are designed to increase income and employment opportunities of these people should have the general objective of improving their economic condition while allowing them to fulfill personal goals and aspirations.

Four major points should be considered in formulating and evaluating public policies and programs. First, is the policy or program politically acceptable? Second, is the program administratively feasible? Third, is the program economically sound? Fourth, is the program socially acceptable?

PART I

Commercial Agriculture

Commercial agriculture is defined as those farm operations that have adequate resources to use up-to-date methods and are large enough to obtain the economies of size. It has been estimated that slightly less than one-third of the farms in the U. S. fall into this category, yet this segment of the industry produces about 85 percent of all farm products sold.

A problem that has burdened the commercial farm segment for decades has been excess capacity. Associated with this excess capacity problem are problems of resource adjustment and adequate returns to investment which affect both the commercial farmers and rural people in general.

Commercial agriculture in the U.S. must purchase most of the inputs it uses in the production of food and fiber. The farmer buys his inputs in markets that are often not competitive and sells his output in a highly competitive market in which he is forced to accept the "going" price. In short, he must buy his increasingly-expensive inputs in a market where the producers have some control over output and prices while selling his output in a market over which he has no control.

Another feature of the highly-competitive commercial agricultural industry is the necessity to adopt new technology as rapidly as possible. Most of the research that provides the tremendous technological advances in agriculture has been publically financed and as such has been rapidly distributed to, and adopted by, the commercial agricultural industry. This has been one of the primary reasons why society has benefited from low-cost food. The publicly-supported research has continually increased the efficiency of the agricultural industry and this increased efficiency has been passed on to consumers. On the other hand, nonagricultural industries can often control particular technological advances and time the adoption of each to best suit their financial structure and the most favorable demand and supply situation.

The important point is that the agricultural industry, as opposed to nonagricultural industries, must attempt to adjust rapidly to technological advances that usually increase output per unit of land or labor. Prices usually decline as a result of the increased output since resources cannot be reallocated out of production rapidly enough in the face of an inelastic or fixed demand for output. Government price and income programs have been used in the past to raise net farm incomes above the very low levels that would prevail otherwise. However, these programs are expensive to government, often objected to by farmers desiring free markets, and interfere with foreign trade. In short, policy for commercial agriculture will continue to be a perplexing problem of adjusting land, labor, and capital to produce the needed commodities. Commercial agriculture must have assistance in the form of governmental programs and/or enabling legislation to make the necessary adjustments.

Since the mid-1930's, agricultural public policy has been directed toward production control and price support primarily for the so-called "basic" commodities—wheat, corn, cotton, rice, tobacco, and peanuts. Under the production control and price support programs, substantial stocks were accumulated and proved to be a blessing to meet the needs of World War II, the Korean conflict, the food crisis in Southeast Asia, and the 1972 shortage in world food production. The stocks were accumulated by the government through the price support program and eventually found their way into the export market. Accumulation and storage of these stocks were expensive; nevertheless, the American consumer was able to buy food and fiber at reasonable prices and products were available.

The world situation is changing and the demand for food is increasing. Developed countries have a desire to upgrade diets and the less-developed countries are beset with food shortages and increasing populations. These conditions accompanied by an increased demand for food in the U.S. has shifted the relationship between supply and demand for food. In recognition of this changing relationship, the Agricultural and Consumer Protection Act of 1973 was enacted for the 1974 through 1977 crop years.

In some ways the Agricultural and Consumer Protection Act of 1973 was an extension of the Agricultural Act of 1970 which expired with the 1973 crop. The 1973 Act continued to give the producers freedom to plant crops they find most profitable. In addition to this freedom, the set-aside requirement was suspended for 1974 and the conserving use requirement has been suspended through 1977. These two provisions released over 40 million acres that could be planted to crops.

On the other hand, there are sharp differences between the 1970 and 1973 agricultural acts. The Act of 1970 provided for price supports based on the parity price concept while the 1973 Act provided for price supports based on the guaranteed or target price concept. The target prices provide for deficiency

payments to farmers if the product prices drop below target levels. Deficiency payments will not be made so long as the average market price received by farmers during the first 5 months of the marketing year remains above the target level. If the average market price drops below target levels, the farmer's cash price is supplemented (only on the farmer's production alloument) by the amount that the target price exceeds the five-month average price received by all farmers. If the market prices drop sufficiently low, support prices or loan rate prices are activated. The excess production at the loan rate prices will move into government stocks for future use.

Commodity	Target price 1974 and 1975	Loan rate 1975
Cotton	\$.38	\$.25
Wheat	2.05	1.37
Corn	1.38	1.10
Grain Sorghum	1.31	1.05
Barley	1.13	.90

The target prices will be adjusted for 1976 and 1977 based on the costs of production and changes in yield per acre for each crop. The loan rate may be adjusted based on the world price for the respective commodity.

The 1973 Act puts more emphasis on the marketplace for production and resource allocation. Prices above the target prices permit the free movement of commodities strictly based on supply and demand. At prices between the target level and the loan rate, the market still operates freely, but income deficiency payments are made to farmers to provide stability to the farm and auxiliary sectors of the economy. If prices drop to the loan rate, income deficiency payments are made to farmers and commodities will move into government stocks for future needs. The 1973 Act provides a partly self-adjusting mechanism with the flexibility needed to provide food and fiber for our domestic population and exports.

The 1973 Act established a payment limitation of \$20,000 which a farmer can receive annually. This \$20,000 per farmer limitation compares with \$55,000 per farmer for each of the three crops—wheat, feed grain and cotton—under the 1970 Act. Excluded from the \$20,000 limitation is any portion that the Secretary determines to be payments for set-aside programs, public access, loans, and purchases.

Issues to be faced:

- 1. If market prices fall below target prices:
 - a. The deficiency payments technique can be used for any product, not just storable products. Pressure probably would develop to guarantee prices for meat animals, poultry, fruits, vegetables, and other commodities not involved in previous commodity programs.
 - b. Costs to the government might become excessive and an urbanminded Congress would have greater resistance to vote for

farm commodity programs.

- c. International trade negotiators could argue that the U.S. would be subsidizing exports of farm commodities. However, other countries often subsidize their agriculture and overstimulate the farm plant.
- 2. If market prices stay above target levels:
 - a. Price stability could easily become a problem and shortages could develop.
 - b. Prices paid by farmers could rise faster than prices received and place the farmer in an unreasonable price squeeze.
 - c. Stocks might become so low that the U.S. would be unable to have adequate food and fiber in an emergency. The cost for storing adequate stocks may be less than the difficulty created by scarcity.

Basic Commodities

Cotton. The support price for cotton during the 1950's and 1960's was beneficial to producers in the short run; but, due to artificially-high supported prices, the demand for cotton was reduced and the development of synthetics and substitutes encouraged. Until 1973, the market for cotton appeared to be shrinking. However, this trend may be changing if the prices of substitutes continue to increase.

The primary substitute for cotton in blends is polynosic rayon. Mills would naturally prefer to use whichever one is less expensive. However, once mills switch to a man-made fiber like rayon, it takes a large price change and considerable time for the mills to switch back. This is true for any commodity that has been replaced by a substitute, and it is difficult for a commodity to recover a market it has lost. The recent higher price for cotton provided an opportunity to modify the cotton programs.

Peanuts. On October 24, 1973, the Secretary of Agriculture announced the 1974 program for peanuts which contained administrative changes aimed at reducing the program's cost. The national allotment for peanuts is 1,610,000 acres, the minimum permitted under the Agricultural Act of 1938, as amended. Under current legislation, acreage allotments must be determined from marketing quotas for the 1972, 1973, and 1974 peanut crops. Quotas have been in effect each year since 1949.

The following administrative changes in the 1974 peanut program are expected to lower program costs by an estimated \$6.6 million:

No price support will be available for peanuts found to contain aflatoxin.

An increase of 2 per ton will be made for storage, handling, and inspection (from \$15 to \$17 per ton) to producers in order to recover more of CCC's outlay for these charges.

No tolerance will be allowed in program compliance determinations relat-

ing to measured acreages.

Growers who comply with their allotments will be eligible for support through loans and purchases. The preliminary rate—at the legal minimum of 75 percent of parity—will be determined early in 1974. Noncompliance farmers (those who plant in excess of allotments or without allotments) will receive no support and will incur substantial marketing penalties for any excess acreage produced.

Owners will be able to sell or lease their 1974 acreage allotments. Previously these rights had been cancelled for 1974.

Field and supervisory price support functions will remain with grower associations instead of being transferred to Agricultural Stabilization and Conservation Service state and county offices.

The Commodity Credit Corporation's minimum sales policy for acquired peanuts is being revised to provide a minimum resale level of 100 percent instead of 115 percent of the loan rate on diversion sales. (A diversion sale is one made for crushing into oil and meal or for export.)

Proposed legislation (H.R. 11259) cited as the "Peanut and Rice Act of 1973" was introduced on November 6, 1973. This proposal would provide 4-year programs for rice and peanuts, similar to the programs enacted in the Agricultural and Consumer Protection Act of 1973 (P.L. 93-86) for feed grains, wheat and cotton.

Specifically, the proposed bill would:

- 1. Suspend the present acreage allotment, marketing quota, and price support programs for 1974-1977 crops of rice and peanuts.
- 2. Provide for target prices, loans, freedom to plant, deficiency payments, and set-aside provisions similar to P.L. 93-86.
- 3. Remove the mandatory planting requirements on approximately 3.2 million peanut and rice acres and introduce flexibility for such land to be cropped in response to the public's demands for additional food supplies.

Tobacco. The problems surrounding tobacco as an agricultural commodity is augmented by the controversial health effects centered around the use of tobacco. This health issue may single tobacco out for separate, but unfavorable legislative action. Even if the health issue were not present, the tobacco industry still has numerous problems. Tobacco producers have enjoyed the benefits of legislated programs for over 30 years, but this favored position could change drastically during the 1970's. A few of the tobacco industry's problems are: labor shortages, small allotments, marketing inefficiencies, and lower than desired tobacco prices.

Production of tobacco is highly labor-intensive, more so than any major crop. The very small allotments (marketing quota) have not permitted the accumulation of adequate acreage to be combined into commercial-sized units that could feasibly use relatively expensive mechanical harvesters and other mechanized equipment. Changes to facilitate larger individual allotments would increase the tendency toward mechanization and in all probability lower the costs of production per pound. As a result of such changes, the subsidy provided to growers through price supports, and indirectly, to other segments of the industry, might be greatly curtailed.

Over 90 percent of the burley allotments and 75 percent of the flue-cured allotments are 10 acres or less in size. Tobacco and associated programs have been used to insure a large number of small-sized farms with an important source of income.

Many individuals feel that it has been concluded that tobacco is a healthdamaging product. Therefore, politicians will be reluctant to consider new tobacco supporting programs. There are two points to be considered. One, the effects of a reduction in tobacco utilization (ignoring the export market) would not just be limited to producers or those in the immediate areas. Much research needs to be done to identify the economic importance of the tobacco industry and be able to suggest programs to provide for reallocation of the resources that could be released. Two, the tobacco programs of the past have benefited certain low-income producers in a small but important fashion.

Grains. Wheat, soybeans, and feed grains have become a controversial issue since the Russian wheat sale. Wheat and feed grains were under a voluntary program designed to divert acreages from production and to keep prices from falling by price support payments and acreage diversion payments. The Russian wheat sale and a general worldwide shortage of protein have given grain prices a boost and has enabled grain policy to be shifted to the target pricing concept.

Corn, the major feed grain, is intricately interwoven with other segments of the agricultural industry—it is the primary link between the crop and livestock industry. This again was emphasized by the effect of world shortages of wheat and protein supplies. Corn is also interrelated with soybeans, wheat, and cotton. For example, resources diverted from one commodity can be shifted to production of another. Thus, it is imperative that these crop programs be determined jointly so that the effect of one program does not undermine the objectives of another.

Nonbasic Commodities

The "basic commodity" programs and the government programs for the nonbasic commodities all have the common feature of attempting to protect farmers from market uncertainties due to weather and other factors over which they have little or no control. The complete, sudden removal of these programs would cause severe hardships on the agricultural and supporting sectors of the economy. If certain programs are deemed to be undesirable from the standpoint of society, then they should be removed, but removed through the use of transitional programs that would allow an industry a reasonable length of time to reorganize and reallocate resources.

Contract Farming

The use of contracts to coordinate supplies with demand and to alleviate some of the price risk has been practiced for some time. It has been closely associated with vertical integration in some industries such as poultry. Contracting has also been used extensively in the fruit and vegetable processing industry. Contracting has even recently become a major issue for some basic commodities, principally cotton and soybeans.

Considering the number of farmers contracting and the data base from which they operate relative to the contractor, it is imperative that government provide adequate legislation to protect the farmers from unfair competitive advantages of oligopolistic type contractors. Farmers also need the security that contractors will be financially able to fulfill their contract under adverse economic conditions.

Bargaining Power

The unique feature of agricultural producers that forces them to seek bargaining power to enhance their competitive position is that they are primarily price-takers. Their output, individually, is too small to affect price. This is the same position an individual worker is in when he is in the labor market. Unless he can differentiate his services from other workers by a particular skill, it is unlikely that he will improve his position individually. Only through group action (a voluntary self-help program) permitted by enabling legislation may the worker unite together with other workers for collective action. It is the same with individual farmers.

Briefly stated, the primary goals of farm groups organized for the purpose of obtaining bargaining power are to increase productive and/or marketing efficiency, improve market demand, increase producers' share of profits from processors and others, and to obtain higher prices for their products. These goals can be objectives for marketing cooperatives, purchasing and bargaining associations, commodity promoting and advertising organizations, marketing boards, and marketing order committees.

Cooperatives have been used in the agricultural sector for decades. It has been estimated that four out of five farmers partly own and patronize cooperatives. The favorable governmental support of agricultural cooperatives should continue in the future since it gives the atomistic producer some degree of bargaining or countervailing power against the oligopolistic wholesaler and processor. Implicit in the organization of cooperatives is the attempt to gain the economies and power associated with vertical integration.

The one intrinsic problem of the agricultural sector that cooperatives have not been able to deal with effectively is that of excess capacity. This led to the enactment of the Federal Marketing Agreement Act of 1937. Numerous states have also enacted legislation to permit state marketing agreements and in total about 100 marketing orders and agreements, national and state, have been created. The fruit, vegetable, and dairy industries are the primary users of orders and agreements.

Marketing orders and agreements have been used effectively with numerous fruit and vegetable commodities. Such orders and agreements can and do benefit consumers as well as producers through increased marketing efficiency and quality control. The orders and agreements are particularly useful to producer groups to control intraseasonal gluts in supply. By eliminating a drastic price reduction by withholding supplies over a short time period, producers increase their overall net income. However, marketing orders have been completely ineffective in dealing with long-run excess supply problems. Although apparently successful in the short run, they have discovered that their monopoly action has enticed competitors to introduce new products, natural and synthetic, and to enjoy demand created by use of the order. Also, the increased revenue brought about by decreasing supplies in the short run entices new entrants into the industry, thus magnifying the long-run excess supply problem.

It is recommended that federal marketing orders and agreements be permitted for any commodity group. However, the mechanisms for restricting supplies and fixing prices should be eliminated. The benefit to agricultural industries is in their ability to improve quality, collect and distribute information, and to generate funds to be used for research and development of new and improved products.

Legislation enacted to protect various commodities from competing substitutes, such as the Federal Filled Milk Act of 1923, create an equity problem between producers and consumers. These type programs deny consumers free choice of competing substitutes and compound the complexities of the agricultural resource adjustment problem. Actually, the removal of such discriminatory statutes in an industry may increase consumption of the product in the long run provided the product can compete in the marketplace for the consumer's dollar.

While it is possible for group action to improve numerous marketing situations, it is not possible for group action in the existing framework of cooperative programs to solve price and income problems resulting from excess capacity to produce. One of the major handicaps of group action is the necessity for individuals to consistently pursue a common objective and to subject themselves to the regulations and restrictions considered necessary. This is the reason it is much easier to get producers in a small geographic region to cooperate under a marketing order than it is to get cotton, wheat, or feed grain producers, who are scattered over a wide geographic area, to agree to regulations imposed by a central authority. Although the producers produce the same crop, their economic interest in various commodity programs is often quite divergent. For this reason, it must be emphasized that enabling legislation which encourages group action will not work for the "basic" or broadly-produced commodities.

Group action cannot solve the problem of the uneconomical undersized farm firms resulting from the mixture of social and economic forces at work in many rural communities. Since there is not a complete answer to the problem of increasing the size and efficiency of farm firms, group action may be a partial answer. It is one means of retaining the decision-making process at the farm level while operating in a system that has more and more vertical and conglomerate integration among nonfarm firms.

The family farm, with adequate machinery and land, can be just as efficient as a firm employing more labor. Thus, the family farm does not conflict with national goals of efficiency and resource allocation. Technically optimal farms are not small, but are even larger than the average farm firm today. Emphasis must still be placed on programs that will adjust land into the farms that will be able to produce near the technical optimal point and compete effectively in the market. This is a production problem; however, it is directly associated with the ability of farmers to unite in group action to improve farm prices and incomes. A smaller number of farmers will enhance the opportunity of these remaining farmers to unite under a common set of objectives. The technical and managerial skills needed to operate technically optimal farm firms should also provide the basis for the skill and knowledge required for effective group action. Even with fewer, larger, and more business-oriented type farms in the commercial agricultural sector, there will still need to be legislation to strengthen their bargaining power through group action type programs.

One additional alternative that should receive attention is the creation of marketing boards. The monopoly power of such boards would be much stronger than that which currently exists in available programs. This type of program may not be desirable from the narrow viewpoint of the consumer, but it is a viable alternative to be considered when searching for a means to provide agricultural producers with a rate of return comparable to that received by nonagricultural industries.

Transportation

Improvements in highway and waterway transportation have constantly increased the number of farm product shippers coming within the geographic range of truck, barge, or combined truck-barge service to markets. To many shippers formerly served exclusively by rail carriers, intermodal competition has brought lower shipping charges or has offered access to more distant markets.

In moving traffic for which motor or water carriers compete actively, shippers of farm products pay freight charges which approximate the lowest rates at which the carriers are prepared to offer service. Truck and barge operators are allowed substantial freedom from regulation in competing for interstate shipments of unprocessed farm products. It appears that intermodal competition has brought a net economic gain, reducing the aggregate transportation bill for hauling farm products and improving the quality of service. Of course, not all shippers, processors, and middlemen directly benefit from realignments in transportation services and rates.

While most shippers of farm products have realized substantial savings on transportation charges, benefits from intermodal competition appear to have

been limited to some extent by the continuing regulation of rail carriers. Railroads, unlike competing carriers, usually have substantial unused capacity for moving additional traffic. Many costs associated with maintaining and operating the nation's rail system are not reducible so long as operations over that system are maintained even at much less than full capacity. Since additional traffic could be moved without adding to fixed costs, railroads may benefit by competing for traffic at any rate that exceeds their additional variable costs. Furthermore, since the fixed costs for a given level of rail capacity cannot be adjusted downward, except by abandoning service entirely over parts of the system, incentives to continue moving this traffic at rates low enough to retain it may persist indefinitely.

Transportation laws and regulatory policies since 1958 have permitted the rail carriers to maintain volume by reducing rates to levels that approach variable costs when necessary but not to levels which might substantially eliminate competing carriers. Rail response to intermodal rate competition has been limited by the cost levels of competing carriers and this pattern of restricted rate reductions has limited the immediate saving on transportation charges to shippers made possible by intermodal competition.

Continuing restraints through law and regulatory policy over ratemaking for rail traffic appear to reflect the fear that rail carriers—if free to eliminate competition from certain traffic movements—could monopolize some shippers' trade. However, railroads no longer enjoy a technological advantage over other methods.

Credit

The capital requirement for a viable production unit has been doubling to quadrupling for the various farm units about every 10 years. These increases in capital requirements have been the result of increased size of business, substitution of capital-using technology for labor, greater emphasis on purchased inputs, and rising price levels. Trends for the future indicate that the movement is toward even further increases in the capital requirements for farmers. These capital needs have been increasing faster than farmers have been able to generate savings from farm earnings, thereby placing a major part of the burden on farm credit.

In addition to the increased capital needs for farming, there has been an upsurge in the credit that is needed to service the rural nonfarm sector. Rural nonfarm housing and service delivery systems such as supply and marketing cooperatives, telephones, water, and sewer systems constitute these major requirements.

In recognition of these increased requirements, the Federal Farm Credit Board appointed a 27-member Commission on Agricultural Credit to examine the present and future credit needs of agriculture and to recommend ways in which the Farm Credit System might best help fill those needs. The Commission was instituted in the spring of 1969 shortly after the Farm Credit System repaid all federal funds and became completely farmer-owned in 1968. Through analyses, consultations, and revisions the recommendations of the Commission evolved into submission and enactment on December 2, 1971, the Farm Credit Act of 1971.

The Farm Credit Act of 1971 authorizes the lending units of the Farm Credit System to update and modernize their programs and services. The Act also permits the System to extend its lending activities into new fields such as rural housing, fishing, and farm-related businesses.

Since the Farm Credit Act of 1971 was an almost complete revision of previous farm credit legislation, it is recommended that the new Act be given enough time to operate and be evaluated before undertaking major additional revisions. Basically the 1971 Act was a good piece of badly-needed legislation.

A major problem which is becoming more acute in farming is the limited capability of a young man starting and expanding his unit to a size large enough to be competitive. This problem may be best addressed through laws concerning tenant rights rather than through credit. The trend points toward owner-operators who rent most of the land used in the farming operation.

Financing of rural housing remains a problem even though less acute than previously. The Farmers Home Administration has limited funds to finance modest rural housing. The Federal Land Bank and the Production Credit Association received limited capability to finance rural housing by the 1971 Farm Credit Act. However, the limited provisions under these agencies are inadequate to fulfill the needs.

Environmental Concerns

Society's awareness and concern over environmental quality has intensified in recent years. Yet, the term environmental quality still defies precise definition because of the multiplicity of goals and values that exist in our society. Environmental problems stem from growing human pressures on available resources, both natural and manufactured. The pressures result from population increases, levels of social-cultural development, economic growth and in turn by the educational scientific and technological process.

Agriculture has always involved the environment, but as industry and people moved to the suburbs, the phrase "environmental quality" assumed new emphasis and new dimensions for farmers. The enactment of the National Environmental Policy Act of 1969 and the consequent establishment of the 10 regions of the Environmental Protection Agency with specific deadlines for states to develop acceptable environmental guidelines is putting new pressures on the agricultural community.

Increasing penetration of nonfarmland uses into rural areas has raised a number of conflicts among rural neighbors. Nuisance ordinances are frequently the result where noise and odor from a farm disturbs the more recent yet more numerous and vociferous residents seeking a "patch of green." Water pollution laws in several states have closed a number of animal feedlots. These and similar expressions of public interest in a pleasant rural environment are limiting the land-use options open to commercial farmers. The trend seems to be the result of both increasing nonfarm penetration and increasing awareness of the environmental issue. By introducing new elements of cost and uncertainty into production, environmental concern would seem to encourage further concentration in units large enough to permit required investment in environmental quality and discourage continued operation in urbanizing areas.

Several types of potential or existing agricultural pollution have been identified including chemical residues, soil sedimentation, and livestock wastes. Excessive use of chemicals and fertilizers in crop production is a potential source of pollution. Erosion of soils into waterways creates problems. Livestock wastes are a more serious source of pollution because of the expansion into larger confined feeding operations. Federal and state policies are being proposed and developed for pollution control. Current attention from various governmental regulatory agencies is focused on livestock waste pollution abatement primarily because confined feeding operations are considered potential sources of pollution to control.

Several points about environmental quality should be emphasized. Of first importance is the realization that waste is a by-product of daily life. Because the cost of reducing waste production mounts quite rapidly as more and more waste production occurs, only an idealistic approach visualizes a zero level waste discharge. Some acceptable level must be agreed on.

A second point is the necessity to be aware of the causes of environmental problems because such knowledge is fundamental in finding alternatives for environmental improvement. Several causes are: 1) numbers and concentration of people; 2) ability of consumers to purchase goods and services; 3) the ability to internalize all the costs of production including that of waste disposal; and 4) the failure to make full use of technical knowledge or a lag in knowledge in reducing waste production and reusing disposable materials.

Third is the consideration of alternatives for managing waste. Three possibilities are possible: 1) persuasion; 2) government regulations; and 3) economic incentives.

There are several trade-offs related to environmental quality that should be considered in policy formulation. The first of these is a trade-off between degrees of pollution. It isn't a case of clean environment versus a dirty one. Rather it is a situation of degrees of environmental "cleanliness." We need to recognize that environmental quality is not an individual or regional problem but a national one. We also need to recognize that pollution is not entirely man-made. A certain amount of soil erosion and water pollution occurs in nature. The natural state of our environment was not absolutely clean. It is important to recognize that potential problems exist but it is not necessary that we have absolutely clean water in every stream before we can say that we have properly cared for our natural environment.

A second trade-off to consider is that between different parts of the en-

vironment. Careful consideration should be given to policies that may prove effective for one resource to the detriment of the total. Dumping sewage sludge into land fills or spreading it on farmland may reduce stream pollution but may also create future problems if the soil resource is needed for crop production.

A third trade-off is between the quality of our environment and other things that society needs. The Environmental Quality Council of the Federal Government estimated that \$105.2 billion would be required to clean up the environment over a 6-year period. The trade-off here, of course, is which is most important. Should we clean up the stream or should the money go into lowincome housing or better social services for the poor or education or defense spending? Obviously these decisions are not easy to make.

We can anticipate some of the future effects of environmental quality standards on the agricultural community.

First, stringent pollution control regulations on farm operations will result in higher food costs to consumers. Requirements for pollution control are likely to result in increased investment costs both for existing and new farmers. These investment costs will likely be passed on to the consumer in the form of higher food prices.

Second, pollution requirements for commercial farm operations will tend to accelerate the trend toward concentration, especially if these requirements are applied directly to each commercial farmer. More and more requirements are likely to result in increased investment costs which would tend to push the commercial farmer toward a larger, more-specialized farming operation.

Third, the point has been made several times that we can no longer return to the agricultural system that we had 30 or 40 years ago. It is impossible to feed our population and maintain our agricultural export levels by withdrawing all chemicals, pesticides, insecticides, and chemical fertilizers from our agricultural production system. The technology that we possess without using these items would not provide the food and fiber that our population needs. The proposition of zero tolerance for many of our insecticides and pesticides is simply an impossibility. Therefore, it becomes necessary to establish a trade-off between the level of insecticides or pesticides that we will permit farmers to use versus the social cost for the use of those pesticides.

Fourth, rapid application of new regulations will accelerate the rate at which many small farmers go out of business. Those farmers that are at an older age may not make the investment required to meet new standards and thus we may create a further problem of additional unemployment in many rural areas. There may be social costs involved for many of our small rural counties and rural towns if we have a rapid increase in the number of farmers leaving farming. The land will not necessarily leave agricultural use but will likely be combined into larger units. These larger units may no longer depend on local sources for their supplies but may buy from a larger source or even contract for their necessary inputs.

Some deviation from the standards should be in order for smaller operations,

For example, the same standards for a 5,000-capacity feedlot shouldn't apply to a farmer who may be feeding 25 head much of the time on pasture.

Recommendations

- 1. Shift more away from national acreage allotments and bases to a system of national quantities or quotas.
- 2. Facilitate resource adjustment by permitting the right to produce to be separated from the land resource.
- 3. Shift more away from the traditional price parity concept to the income parity concept.
- 4. Develop future policies which will fulfill long-term objectives and goals. Management should be by objective rather than by crisis solution.
- 5. The minimum wage for farm labor should be the same as the nonfarm minimum. The hired farm workers are among the poorest people in the nation. Adjustment provisions should be included for those individuals who may temporarily become unemployed as a result of this change.
- 6. Contracting between farmers and merchants should be regulated so that financial performance could be guaranteed; for example, cotton contracting.
- 7. Continue strong support for research and education because taxes to improve agricultural productivity redistribute income toward low-income families. Taxes and benefits for agricultural research and education redistribute income away from the rich to a greater degree than all state-local taxes and benefits, but to a lesser degree than federal taxes and benefits.
- 8. Eradication of economically-important pests and diseases, for example, the boll weevil.
- 9. Maintain price support for basic commodities that experience severe price changes.
- 10. Adequate credit should continue to be made available to farmers at reasonable rates and on reasonable terms.
- 11. Direction needs to be given at the national level to developing a national transportation policy in which agricultural transportation should have a prominent part. Particular attention should be given to the rail carriers so they can compete more freely. A national policy should encourage carriers to maintain adequate inventory control and equipment location to adequately handle peak loads during the agricultural harvests.
- 12. Joint hauls, utilizing more than one mode of transportation, should be encouraged.
- 13. Realistic labor policies should be adopted which would prevent lengthy tie-ups of our transportation facilities.
- 14. Develop adequate programs for environmental improvement while recognizing that a zero tolerance level of all chemicals is not possible. It should also be recognized that we can't "turn back the clock" and produce adequate food and fiber for today's world using the technology of 40 years ago.

- 15. The family farm and rural communities should be preserved while agricultural production continues to be accomplished by the more efficient operations.
- 16. Domestic production of food and fiber should be adequate to protect the U.S. from severe shortages in times of international conflict.
- 17. Government payments should be viewed as an aid to distribute the burden of adjustment in the agricultural sector throughout the populations.
- 18. Policy should provide for price stability and encourage economic growth.

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PART II

Rural Development*

An important goal of agricultural policy historically has been the improved welfare of society. The dynamic interaction of technological change, an increasing domestic supply relative to domestic demand, and a free market economy have served, however, to thwart this goal to some extent. The economic advances experienced in the U. S. over the past hundred years have resulted to a great degree from the application of science and technology to a flexible, rapidly-adjusting system of production agriculture. On the other hand, the resulting policies supporting cheap food to the consumer have forced a sharp decline in the number of farmers and virtually depopulated vast areas of rural America.

In view of current problems facing both rural and urban America, a special "rural development program" seems in order. Such a program may fall under the purview of agricultural policy given the broad range of agencies designed to provide developmental assistance to rural residents, especially USDA's Farmers Home Administration and the Federal Extension Service administered by land-grant colleges and universities throughout the country. In any event the objective of such a program must be to improve the quality of life of all Americans. While the focus in this paper is on rural life, it should be emphasized that this orientation is a necessary but not sufficient thrust to an improved society for both rural and urban residents. A rural development program will diverge significantly from commodity-oriented farm programs. The problems being addressed are different and separate tools are needed to deal effectively with the problems.

Food has become relatively cheaper continually since World War II and has benefited all consumer groups in society, especially lower income people who spend a proportionately greater share of their income for food. At the same time, these achievements have contributed to tenacious human problems related to poverty, the aged, farm labor, subsistence farming, and rural youth. Traditional family and social systems have been forced to adjust rapidly in rural and urban America. Social systems have been unable to cope with basic problems attributable to the steady flow of migrants from rural to urban areas, problems of unemployment and underemployment due to inadequate education and skills, and a breakdown in social service delivery in many areas.

As a nation, we are now asking serious questions about the future direction of our society. Renewed emphasis is being placed on the quality of life which necessitates a comprehensive view of the social, and private, consequences of economic change. Accordingly, the purpose of this section is to briefly analyze aspects of public policy that relate to the social and economic problems of rural America. The main focus will be on the people affected by these policies, and the recommendations will include specific actions designed to alleviate the most

^{*}The Rural Development section was written with the assistance of M. J. Yetley and L. C. Morgan, Department of Agricultural Economics and Rural Sociology, University of Tennessee, Knoxville.

critical problems. The goal of these policy recommendations is the revitalizing of both rural and urban America.

Agricultural Productivity and Population Distribution

A discussion of societal problems such as unemployment, poverty, the youth, or the aged is incomplete unless it includes a consideration of the cultural and geographic distribution and the psychological and institutional background in which such problems must be analyzed. In this sense, consideration of rural development policy cannot be analyzed separately from national development policy. However, the human problems that have risen historically from the mechanics of increasing agricultural productivity continue to be a genuine concern of the Department of Agriculture, the land-grant colleges and universities, and the Agricultural Extension Service. Hence, future policy should draw on the strength of past efforts of these and other agencies which have been concerned with agriculture and rural life. Population distribution has been altered radically by previous policy, but its social consequences have only recently come to the attention of policymakers. It will be seen that an explicit policy of population distribution must be the foundation for future rural (or societal) development policy.

Population distribution is determined by job locations. As job opportunities decline in farm communities, nonfarm jobs have not expanded in the same communities at the same rate. Rather, jobs have become increasingly concentrated in urban centers. Noting this imbalance, Senator Clark in his address to the National Conference on Rural Development remarked that by the end of this century ". . . six out of every 10 Americans will live in four huge urban areas from Boston south to Washington, D. C., around the Great Lakes Basin, from San Francisco to San Diego, and from Jacksonville south to Miami. If the patterns of living and migration continue, most of us will live on only about five percent of the land" [8, p. 3].

Public programs supporting agricultural production probably slowed down this mass exodus from the farm in the short run, but have not thwarted efficient resource allocation in the long run. Price supports, land retirement, and production quotas have served to cushion the harshness of economic adjustment for the smaller, less-efficient farmer. Often the value of specific commodity programs become capitalized into land values which are then captured by the individual who sold his land and moved to the city, thereby providing a "severance pay" to farmers forced out of business.

The most critical problems created by national policy of low-cost, plentiful food may have been incurred by urban centers which received the flood of rural migrants. While many of these displaced rural Americans had difficulty finding jobs and adjusting to the city, the monetary effects on the migrants were probably positive. Needless to say, the most severe consequences accrue to the poor and uneducated who lack either social or vocational skills to aid in their adjustment. The total effect in terms of social gains and losses is yet to be determined. Of greater significance has been the general disillusionment with life in urban centers: higher crime rates, human and material congestion, the breakdown of traditional social institutions, etc. What was not calculated by the private market has been recognized by the public and, more importantly, has reached fruition in Congressional legislation such as the Rural Development Act of 1972. Americans are searching for an alternative to the unplanned, costly, and dislocative effects of agricultural economic adjustments which force more people into concentrated urban centers.

Agricultural productivity must remain a primary goal of society and public policy should be designed to guarantee the achievement of this goal. It may be possible to mitigate the adjustment process in agriculture without negating advances in productivity by consciously shaping agricultural technology in favor of the small farmer. Certainly the experience of Japan and other countries provide historical examples of such explicit actions. The future of the family farm may depend on public actions in this direction.

Beyond the problems of agricultural adjustment lie another set of conditions that require a more direct assault: the inefficient small farmer, the rural poor, the rural aged, and rural youth. Forcing the most able into the city, while meager doles support those remaining, can no longer be an acceptable approach. The problem does not disappear and the resulting conditions continue to plague the conscience of America. Future public programs must focus on the people whose conditions are to be alleviated. At the same time, the solution to such problems must be found within a conscious policy to either 1) slow, 2) stop, or 3) reverse the rural to urban population flows. A balanced program of national economic development should provide opportunities for improved welfare to either those who stay in agriculture or those who leave or return.

The Rural Development Act of 1972

The unprecedented wealth of our nation, made possible by agricultural productivity, makes it easier to deal with problems of rural poverty, social services for the young and the elderly, and other needs which require public expenditures. However, dealing with these problems on a piecemeal basis does not fundamentally alter the forces which create the problems of our times. Rather, a concerted effort which taps our national will is called for and should culminate in a national commitment to shape our society according to the public's needs.

The Rural Development Act of 1972 provides a first step toward a more comprehensive prescription for modifying our historical growth pattern. In the late 1960's the Department of Agriculture endorsed a policy of balanced national growth, and the Secretary's Memorandum 1667 of November, 1969, established the present structure of national, state, and local rural development committies. Secretary Butz has recently called for expanded job opportunities in rural America to avoid the necessity of urban migration [8, p. 16].

The task before us has been succinctly stated by Bishop before the

National Conference on Rural Development:

Rural Development is concerned primarily with the basic and fundamental forces affecting where people will live and work in the future and the quality of life that shall be available to them. It should focus primarily upon the forces shaping the spatial distribution of population and economic activity, how that distribution affects the productivity of our nation and the well-being of its people, and how these forces can be altered to enhance the quality of life [8, p. 64].

Emerging here is a rather clearly-stated set of goals that place priority on 1) quality of life rather than simply quantity of goods and services, and 2) balanced population distribution through altering the location of the productive processes. These are pervasive notions that bring all aspects of social and economic policy under scrutiny.

Are these goals enunciated with sufficient clarity to guide a program of research and/or action? This question troubles some researchers and policymakers, perhaps more so than is justified. Hathaway argues that rural development must define specific program goals such as: 1) equality of education for rural people, 2) expansion of rural employment opportunities, 3) equality of medical services in rural areas, and 4) equality of employment opportunities in rural areas [3, p. 424]. While it would, perhaps, be helpful to have national goals clearly stated for research and policy measures, their absence should not hamper a range of relevant efforts to deal with one or more related aspects. Moreover, any national statement of goals must be sufficiently flexible to allow for alternative interpretations and applications to meet local needs at the state or substate level. The social welfare function of a community, city, or county is probably far more critical than any statement on national goals for guiding most research and policy efforts. At the aggregate level, a plea for flexibility must be maintained. Monolithic visions of social problems and ensuing proposed solutions have probably served to create as many problems as they have solved.

Research and Policy

In many problem areas applicable research results have outpaced the ability of social planners to shape public policies and modify the appropriate institutions for policy implementation. Research priorities need to be focused on the very constraints within our policy-shaping and policy-implementing system that hamper needed social innovations.

Population distribution is one area in which research results have clarified some issues on which public action could be forthcoming. It is not clear that rural-to-urban migration is a net social cost as some have advocated in the past. Rather, extreme congestion and large city size above 150,000 population result in net social costs irrespective of migration flows.

On the other hand, the appropriate cost of migration to consider may be neither private nor public, which do not appear to be critical, but rather psychic. Roughly 15 years ago, Maddox argued that the monetary costs of migration were negligible, but that psychic costs accruing to the migrant family could be ignored only at great peril [5]. Nevertheless, economists have continued to measure only the monetary costs and benefits of migration and found them to be negligible as Maddox predicted, while ignoring the psychic costs.

A notable exception has been the work of Deaton [1] and Morgan [6] undertaken at the University of Kentucky. Their studies showed that psychic costs vary with a number of socioeconomic characteristics and by the size of the city of destination. Most Eastern Kentucky migrants in Lexington, Kentucky, would have to be subsidized to return to their home community. On the other hand, Eastern Kentucky migrants in Cincinnati, Ohio, would, on the average, give up a third of their incomes to permanently return to their home community. Obviously, as Maddox had earlier predicted, psychic costs play a significant role in the spatial allocation of the human resource and a development policy for rural areas is therein suggested.

Taking those results a step further can ascertain the acceptable general wage rate that must prevail to slow down migration. In the case of both Lexington and Cincinnati migrants, the necessary wage to induce return migration to Eastern Kentucky was higher than the average wage scale in that region. The existence of adequate jobs at even the existing average wage is quite improbable for Eastern Kentucky. Therefore, only expanded job opportunities in high wage industries would modify the outflow of migrants.

While the Rural Development Act has not explicitly defined a policy of industrial location, a balanced growth policy is advocated and an incentive framework has been provided that goes well beyond the general provisions of the Small Business Administration. The important aspect is that business and industrial loan provisions are specifically provided for small towns and rural areas outside cities of 50,000 or more throughout the nation.

The Rural Development Act is an expanded version of the old farmer loan programs of Farmers Home Administration. The significance of the Act, however, goes beyond the mere provisions of loans and grants for 1) Community Facility Loans, 2) Industrial Development Grants, and 3) Business and Industrial Loans, though these provide essential financing for revitalizing rural areas. Title V of the Act represents a more fundamental realignment of priorities in calling for joint research-extension efforts to promote balanced economic development. To quote from the stated purpose of Title V:

The purpose of this title is to encourage and foster a balanced national development that provides opportunities for increased numbers of Americans to work and enjoy a high quality of life dispersed throughout our nation by providing the essential knowledge necessary for successful programs for rural development [9, p. 16].

Title V is designed to unleash the collective resources of higher education channeled through the legitimizing arms of the Extension Service into rural communities and small towns. Morrison states the charge as follows: The energies and resources of our institutions, regardless of how great they may be, are not going to be of much value to the masses in rural areas if these energies and resources are to be locked up on campuses, in county chairmen's offices, or in the minds and attitudes of professional workers. I am simply saying that if Title V is to be effective, it must get out there where the people are in a way that is understandable and acceptable to them [8, p. 81].

The response by colleges and universities nationwide has been praiseworthy as attempts are underway to join the efforts of higher education with private industry, with state and local government, and with federal agencies to focus attention more sharply upon the future of this nation and the quality of life of its people. Research and extension can provide leadership and needed information for rural development just as it did for agricultural production.

But, this can only be accomplished with a realignment of priorities within the land-grant system. Hightower's **Hard Tomatoes**, **Hard Times** [4] must ultimately be judged to be a socially useful document in spite of poorly conducted research and misdirected charges. Title V provides a means for this needed realignment by linking applied research with social action programs, thereby directly responding to one suggestion by Dale Hathaway in the Pound Report [3, pp. 426-27].

Another criticism by the Pound Report was that: "No agenda of 'critical' **research** questions appear to have been produced at any level" [3, p. 424]. While this criticism may be relevant for some institutions, others have already moved in the direction implied by this charge. The Institute of Agriculture at the University of Tennessee, for example, has developed in an interdisciplinary manner a rather comprehensive statement of research priorities in all problem areas including rural development. Similarly, the Southern Regional Rural Development Research Council composed of representatives of each land-grant institution in the South has developed comprehensive guidelines for rural development research priorities for the South.

It is likely and desirable that research priorities vary by region and by state. Regional and/or national consultation is necessary for long-range coordination and verification of results. Regional efforts such as the proposed Rural Development Task Force of the Southern Regional Council in Atlanta can play a key role in independently assessing the state of current research, in verification of recent findings, and in suggesting additional needs for research and policy prescriptions.

Public Participation and New Institutional Forms

A significant aspect of public policy related to broad, societal goals is the public's insistence on being included in the planning process. No longer are people willing to simply vote for politicians and then sit placidly while decisions are made about the future of society. Rural, or societal, development is a process and, as such, depends on the will and energy generated from within the people and communities where it occurs. Technical assistance can be marshalled by outsiders, but the application and direction taken must come from the "grass roots." This idea has long been germane to the Agricultural Extension Service and should be revitalized as new horizons are approached by the various strata of the land-grant institutions, federal agencies, foundations, and state and local governments.

Research should be directed toward the functioning of our social institutions. Not just their cost effectiveness, but more importantly their flexibility and responsiveness to the needs of their citizenry. At the same time thought should be given to new forms of community organization and quasi-government of both a general and a specialized nature. The most promising structures should be tested in experimental programs in the communities which originated the innovations. In this way problems of legitimacy can be avoided, while measures of responsiveness as well as cost-effectiveness can be obtained.

In no area is innovation more important than in dealing with conflicts in land use and in developing appropriate institutional structures for legitimate land-use planning. As we attempt to revitalize small towns and cities in rural America, it is of great importance that we not repeat the error of planless urban growth which has resulted in so much chaos in and around our large cities. Land-use control remains one of the most controversial issues in American politics. A recent attempt in Congress to pass legislation in this field was swamped in a morass of conflicting interests and fears.

What lies at the heart of this issue is a threat to traditional property rights in land. It is becoming increasingly clear that the actions of one property owner affects the well-being of others in society. Throughout history a system of laws and regulations have evolved to both protect the rights of property owners and to ensure others that these rights will not be misused. That is, all rights in property are partially public and partly private. Recognizing the degree of public control over privately-held property is a fundamental aspect of effective land-use planning.

Property rights in land has been the stock-in-trade of land speculators throughout our history. Uncounted private fortunes have been garnered through land speculation with little concern for the public interest in the quality of growth of American cities. This avenue to private wealth will not be altered or rerouted easily. A comprehensive program of land-use planning, especially in and adjacent to urbanizing areas, is viewed by many as a means of bringing some semblance of order to our chaotic urban growth process.

Citizen interest in land-use problems and active participation by citizens at the local level in planning and zoning board activities is a prerequisite for orderly, acceptable land-use plans. Federal and state legislation is needed to establish general policy guidelines for land-use planning and to provide funds for carrying out a program. But federal intervention should not be pushed beyond the broad national policy level in this field. Land-use control falls under the category of police power and with few exceptions this power is reserved by and

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large to state, county, and municipal governments. It is at this level that the will of the majority can best be expressed through state and local institutions that establish the rules and regulations to be observed in real estate use.

Several states have attempted to develop new forms of citizen participation for effective land-use planning. New York, for example, is developing a statewide system of agricultural districts to deal with urban sprawl and related problems of land use, which former Governor Rockefeller described in the following statement:

The conflicts, incompatibilities and economic and aesthetic loss created by urban sprawl can only grow greater in the future unless an effort is undertaken now to avert these consequences [7].

Consequently, an educational process was undertaken clearly recognizing the importance of community interaction at every level and the substantial interest of many different groups in public decisions about land use. Such districts now include 15 to 20 percent of the state's best farm areas.

The goal of developing nonfarm job opportunities has sparked other innovations that deserve continuing scrutiny. In Tupelo, Mississippi, as one example, a nonprofit foundation serves as a teammate of state and local government to promote a balanced program of economic development. The foundation receives a portion of the receipts from corporate income taxes paid by local private industry [8]. In Clairfield, Tennessee, a nonprofit community development corporation receives grants and loans for hiring technical assistance and to purchase equity in a private, for-profit industrial venture, thereby developing a cash flow for operational purposes as dividends are received from the private firm [2].

These are only two examples of the use of nonprofit corporations. Cooperatives and quasi-public corporations and associations can serve a multitude of functions if laws are sufficiently flexible. And flexibility should be permitted to allow local solutions to the myriad of problems besetting rural communities and small towns. Revenue sharing and severance taxes on minerals have created additional state and local revenues which could be received by an array of local groups with innovative program designs. The burden for carrying forth with new ideas must rest at the local level.

As a final note, rural development must be concerned with the quality of a broad array of social services which must serve rural and urban people alike. It is increasingly recognized that institutional reform at all levels is essential to solving the fundamental human problems of poverty, the rights of children, the continued participation of the elderly, and racial and sexual discrimination. President Nixon recognized this need in his State of the Nation Message to Congress on January 19, 1972:

Today it often seems that our service programs are unresponsive to the recipients' needs and wasteful to the taxpayers' money. A major reason is their extreme fragmentation. Rather than pulling many services together, our present system separates them into narrow and rigid categories A community finds that it cannot transfer Federal funds from one program area to another in which needs are more pressing.

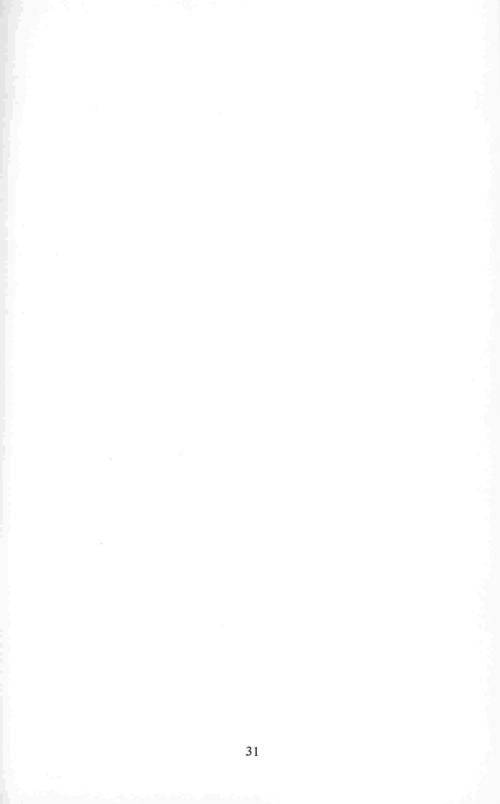
We need a new approach to the delivery of social services—one which is built around people and not around programs. We need an approach which treats a person as a whole and which treats the family as a unit. We need to break through rigid categorical walls, to open up narrow bureaucratic compartments, to consolidate and coordinate related programs in a comprehensive approach to the related problems [10].

Concluding Recommendations

- 1. All incentive programs to induce business locations in rural areas should be explained thoroughly to the public and justified on the basis of savings in social and psychic costs.
- State and federal aid to develop social infrastructure in rural communities should be evaluated similarly; i.e., avoiding net social and psychic costs of alternative development patterns.
- Provisions for a Rural Development Bank which were eliminated from the Rural Development Act of 1972 should be reinstated to supply additional capital on a flexible basis for small business development in rural America.
- 4. Innovative planning approaches should be encouraged at the local level by whatever group that is legitimized by local communities.
- 5. Federal and state noncategorical funding to local public and private groups should be supplemented by categorical grants to problem areas whose constituents may be too weak to compete politically for local allocations.
- 6. Cooperative and nonprofit corporations and associations should be given equal status with public bodies in utilizing federal and state programs whenever the public interest is better served in this manner.
- 7. Low incomes in rural areas can be supplemented most effectively by one or a combination of 1) an income maintenance program (negative income tax, income floor, etc.), b) equalizing the minimum wage in agriculture and nonagriculture employment, and c) developing off-farm job opportunities.
- 8. Some form of severance pay and job training should be available to farm families who are unable to continue farming and are in a position to take advantage of such services.
- 9. Basic research is needed to evaluate the potential of technological changes to improve the plight of the small, subsistence farmer.
- Continued support for basic research is needed in many areas: quality of life, new institutional forms, leadership effectiveness, behavior of local public and private groups, industrial location, and demographic changes to mention only a few.
- 11. Policies toward commercial agriculture can be based **primarily** on efficiency, while separate programs should be designed to deal directly with low incomes, poverty, and other welfare concerns.

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Dairy Experiment Station, Lewisburg, J. R. Owen, Superintendent Highland Rim Experiment Station, Springfield, L. M. Safley, Superintendent Middle Tennessee Experiment Station, Spring Hill, J. W. High, Jr., Superintendent Plateau Experiment Station, Crossville, R. D. Freeland, Superintendent Tobacco Experiment Station, Greeneville, J. H. Felts, Superintendent West Tennessee Experiment Station, Jackson, H. W. Luck, Superintendent

Field Stations

Ames Plantation, Grand Junction, James M. Bryan, Superintendent Forestry Field Stations at Tullahoma, Wartburg, and Oak Ridge, Richard M. Evans,

Superintendent

Milan Field Station, Milan, T. C. McCutchen, Superintendent

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