

Agricultural Problems for Urban Areas

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In the beginning, man fought nature, wild animals, other men, and starvation in a rural environment. No urban areas existed. Then, villages, towns, and cities developed and man's economic sophistication increased.

Many of the men and women who settled the United States came from the cities and towns of other countries, primarily from Western Europe. They entered a raw, undeveloped land and established a rural economy centered on the production of food. For many years practically everyone lived on farms or in rural areas. In 1790, 95 percent of the people lived in rural areas (13).

Trade with other countries began, based largely on farm crops and products from the forests and the waters. Towns, villages, and cities emerged on the eastern seaboard, and the settled areas spread westward. By 1860, 80 percent of the population still lived in rural areas, and 60 percent by 1900 (13).

The United States today is an urbanized country. Urbanized areas include counties which contain a central city, and counties adjacent to central city locations. It is not necessary to go back through detailed history to show the urbanization of the United States. The urbanization trend has continued, with a few minor reversals, since the country existed. The picture can be seen quite clearly from the following recent statistics: (12, p. 50, 52).

<u>Location of population</u>	<u>Percent of U. S. population</u>		
	<u>1950</u>	<u>1960</u>	<u>1970</u>
Metropolitan (urban) counties	62.1	66.3	69.0
On farms	15.2	8.7	4.8
Other non-urban areas*	<u>22.7</u>	<u>25.0</u>	<u>26.2</u>
Total	100.0	100.0	100.0

\* Calculated

Thus, in 1970, only 4.8 percent of the U. S. population resided on farms, and a total of 31.0 percent in rural areas, while 69 percent lived in urban areas. In Maryland, a state which includes the twin influences of Washington, D. C. and Baltimore, 85 percent of the people live in urban areas.

The number of farms in the U. S. reached a peak of 6.8 million in 1935. Today, the number is estimated to be about 2.9 million. The farm population reached a peak of 32.1 million in 1910 and is about 9.7 million today (12).

The number of workers on farms was 2.0 million in 1820, reached a high of 11.6 million in 1910 (13), and declined to 4.2 million in 1970 (12).

The 50 United States contain almost 2.3 billion acres of land. Primary agricultural production utilizes about 81 percent of this vast area (7). Less than three percent of the land is devoted to the direct use of the 69 percent of our population in urban areas.

Clearly, agriculture in the United States is operating within an urbanized society.

### Agriculture Identified

Before dealing with the specifics of agricultural programs in urban areas it is necessary to set the stage to insure understanding of the points to be made. The urbanized nature of our society has been established. What do we mean by agriculture?

First, farming itself--the on-farm production process--is not synonymous with agriculture today. It may well be that farming and agriculture have never been precisely synonymous since the first settler stepped onto the shores of the North American continent. But it is true, by and large, that American farmers of 170 years ago--when practically all of our people lived on farms and in rural areas--managed a farming operation that generally encompassed all of what is today's agriculture.

Dr. Cochrane summarizes this point effectively in his book: (4, p. 3)

In 1800, the farmer and his family produced most of the capital resources employed on the farm. The farmer combined those meager capital resources with land and family labor to produce raw food and fiber products. These products were most often processed and consumed on the farm or, sometimes, sold directly to town dwellers. These various activities, all, or practically all, undertaken by the farmer, were described as agriculture. Thus farming and agriculture were one and the same thing in 1800. (italics added).

The farming of yesterday is the Agricultural Complex of today. It is a mighty economic enterprise which is fueled by supplies, equipment, machines, and services from the non-farm sector. It combines these inputs with land, labor, other capital goods, and brain power on farms across the nation, and sends a stream of products--unequaled in all history--into the non-farm marketing sector and to the consumers of America and the world.

This significant transformation is described by Cochrane: (4, pp. 3,4)

But during the nineteenth century, and particularly in the latter half of it, production and marketing functions began to peel off the farming operation. Farm machinery and implements became more productive and more complicated, and had to be produced by specialized producers--in factories. Farmers began to seek improved seeds and varieties of livestock from other specialized producers. Thus, more and more farmers began to purchase capital inputs from non-farm sources.

Similarly, the marketing system has deepened and widened to include gigantic and complex processing and handling facilities, new food products, new packaging and dispensing methods, and new and luxurious retail outlets. In this sea of production and marketing functions the farming operation, or enterprise, remains, but only as a part, and not a major part, of the total Agricultural Complex.

To grasp the totality of the American Agricultural Complex--our Nation's biggest industry--is an awesome task. The shift from the agriculture of yesterday to the Agricultural Complex of today has been a sustained and accelerating process. Many within the Agricultural Complex itself have not observed this mighty miracle or grasped its basic significance in America's surge of progress. Most people who live and work outside the Agricultural Complex are at least one or two generations removed from yesterday's agriculture. They have little or no concept of today's Agricultural Complex.

#### A Framework: Agriculture in our Interrelated Economy

The statisticians who chart the pulse of our economic life should recognize the three subsectors of agriculture--off-farm inputs, on-farm production and off-farm marketing. To continue to describe agriculture as farming when counting its economic contribution to the Nation is analogous to specifying that the automobile industry is only the assembly plants--ignoring the vast parts and materials supply network and the huge web of distributors and credit and service organizations--because at one time Henry Ford built the parts, assembled a car, and sold it from his small workshop to adventuresome buyers nearby.

The economic impact of the automobile industry, like agriculture, covers the three subsectors today.

Ours is an interdependent and interrelated national economy made up of eight major areas. It's like tossing eight pebbles simultaneously into eight parts of a placid mill pond--one for agriculture, one for manufacturing, and one for each of the other sectors of our economic structure. The ripples will cross and recross and interrelate, just as sectors of our economy. Thus, of course, perfect accounting of the impact of one economic sector is not possible. There will be points of overlap. Recognize the overlap between sectors, but do not ignore the existence of the subsectors. Do not set the dimensions of agriculture to fit farming alone.

Another concept is needed to fully understand the total Agricultural Complex. Fishery products are important in our food supply. Vast acreages of commercial and farm forests generate an impressive mix of wood products. Both seafood and forest products enter and flow through parts of the Agricultural Complex. Thus, they should be counted in the total impact of agriculture in our economy.

#### The Impact--In Brief

Based on the preceding, the term "Agricultural Complex" is used to describe the total bundle of products, activities, inputs, and processes that combine to generate the impact of agriculture in our economy.

The Agricultural Complex can be divided into four simplified phases for analysis:

Primary production--farms, forests, fisheries

Processing and manufacturing

Wholesaling

Retailing

Resources are applied as inputs in each phase. These may be grouped as land, labor, capital and management. They include raw materials, buildings, livestock, credit, services, feed, seed, fertilizer, equipment, machines, supplies, finance, and all the other items that support our American standard of living based on advanced technology.

In each phase a service or process or change adds value to the product handled.

#### Rationale for Agricultural Programs in Urban Areas

By luck and by chance, aided by a few leaders of great vision, agriculture and agricultural programs in the United States have evolved in a way which legitimizes the concept and the actuality of application in urban areas. This legitimization rests on laws, practice, and the acceptance of the concept of the Agricultural Complex.

From the founding of the country to 1860, when 80 percent of the people still lived in rural areas, agriculture and farming were nearly synonymous. Then, in 1862, the Morrill Act was passed "... donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts ..." (9, p. 13)

The Hatch Act, passed in 1887 provided "that in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture-----there shall be established under direction of the college or colleges (established under the Morrill Act)... in each state or territory ... an 'agricultural experiment station.'" (9, p. 12) (italics added)

In 1914 the Smith-Lever Act was passed. "In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same ... in connection with the college or colleges in each state (established under the Morrill Act) ... carried on in cooperation with the United States Department of Agriculture." (italics added). The Act further stated that "... the giving of instruction and practical demonstrations in agriculture and home economics and subjects relating thereto to persons not attending ... said colleges ... and imparting information on said subjects through demonstrations, publications, and otherwise ..." (italics added)

The Acts listed above provide the basic rationale for agricultural programs in urban areas. Key words are "... the people of the United States ..." which authorized the broadening of the clientele beyond farms and farmers into rural areas; and, indeed, from the beginning legitimized the inclusion of urban residents. Initial emphasis was on farms, farmers, farm families, and their children. From the beginning, the USDA's relationship with the Hatch and Smith-Lever activities of the States has been one of cooperation, coordination, supervision (to a rather minor degree), and the setting of mutual interest goals.

As agriculture changed from farming to the Agricultural Complex, the agricultural programs in the United States changed. Programs were broadened, and considerable emphasis shifted to urban areas, even though farms, farmers, farm families and rural areas remained major clientele groups. From these Acts followed the traditional concepts of the teaching, research and extension programs in which states who practice those programs are coordinated with the State Department of Agriculture in each state in addition to the association already described with the USDA.

### Some Specifics

In a sense, agricultural programs in the United States have had both direct and indirect application in urban areas throughout the history of the country.

Indirect benefits generally have been spin-offs from the standard agricultural programs in colleges, on farms and in rural areas, geared to traditional agriculture. The agricultural teaching, research, and extension programs, and the work of the USDA and State Departments of Agriculture, have provided urban consumers with bountiful supplies of a wide variety of high quality food, fiber and forestry products at reasonable cost. The percent of disposable income spent for food has continued to decline. A host of indirect benefits flow from soil conservation work, inspections, weights and measures, etc. The increased efficiency in the primary production phase of agriculture (farm, forest, and fisheries) have released millions of farm and rural people who moved into urban areas to provide the labor, capital, and management needed to produce the other and varied goods and services on which our standard of living is based. Much of what is now recognized as agriculture within the Agricultural Complex is located in urban areas, operated by workers who live in urban areas. Published information has always been available to urban people. In more recent years, radio and TV programs dealing with traditional agricultural subjects have been received in urban areas. In short, without the listing of details, all of our "traditional" agricultural programs have had at least an indirect beneficial effect on urban people.

But, what about the direct agricultural programs in urban areas? As rural areas became urbanized, the traditional agricultural programs continued. Even though most of our people now live in urban areas, the number of teaching,

research and extension workers is larger than ever before. These workers, and more, are needed, and their efforts are vital to the continued well-being of our society. The point is that in urban areas such as Montgomery County and Prince Georges County in Maryland, some farms remain, and these are served by programs which also serve the most rural parts of the State.

But, the teaching, research, and extension workers also are conducting "non-traditional" agricultural programs of direct benefit to urban residents. The teaching programs in our Colleges of Agriculture (many with new names such as "Life Sciences") now involve curricula which include non-traditional courses. Why? Let's look at the students in the College of Agriculture at the University of Maryland:

<u>School Year</u>	<u>Area of Residence</u>	
	<u>Rural Areas</u>	<u>Percent From Urban Areas</u>
1964	40	60
1969	36	63
1970	34	66

Only about 14 percent of the students from the rural areas come from farms. And, only about 1 in 15 graduates find employment on farms. Thus, the curriculum includes traditional, technical and social courses related to agriculture, and courses which interest students from urban areas. These students are in the College of Agriculture and other colleges at the University. For example, the former Department of Agricultural Economics is now the Department of Agricultural and Resource Economics. Courses in resource development, ecology and human development are offered. Our faculty works with the Urban Studies Council. Plans are in motion for B.S. and M.S. programs in Urban Studies.

Our interests in rural community development interdisciplinary programs have much in common with interdisciplinary Urban Studies concerns. Many of our students in community development, resource economics, agricultural economics, 4-H, home economics, and horticulture, and many students in technical agricultural programs will deal with urban as well as rural populations in the future. There is an increasing need for knowledge and competencies for working in urban settings as well as rural areas.

Some agricultural programs in urban areas have considerable elements of public welfare in them. These are the School Lunch Program, Commodity Distribution Program, and the Food Stamp Program. These will be discussed by other speakers.

More traditionally, the extension programs have been adjusted to fit urban conditions. Some commercial and non-commercial farms still exist in urban areas. These are served by workers who are skilled in the traditional agricultural sciences, home economics and 4-H programs. Land value and rental discussions, economic outlook, and taxation problems are especially acute in this environment. In addition, many people have acted on the basic human urge to own land--to live on, to play on, to rest on, to work on, to renew on. These "rural residences" in urban areas also are served by extension workers.

In addition, throughout the urban area, adjusted extension programs have been developed. Workers specializing in community development, resource development, food and nutrition, urban horticulture, urban 4-H, urban home economics, etc., have been added. Programs in landscape design, men's garden clubs, lawn care are very popular. Extension workers hold clinics for grounds supervisors for apartment buildings, golf courses, parks, hardware stores, and play grounds. The inner cities are served by 4-H, foods and

nutrition, and home demonstration workers. Specialists hold workshops for restaurant workers, and assist in planning retail food stores. Management training schools for executives in agricultural supply, processing, and distribution firms are held. General consumer information programs are geared to the urban majority.

In short, the extension agricultural programs now are geared to the traditional on-farm problems; and, in addition, specifically serve the urban areas through programs adjusted to fit urban needs.

Agricultural research has shifted to new areas while continuing to solve the problems of traditional agriculture. Taxation and land-use problems in the urban-rural fringe are receiving considerable emphasis. Air and water pollution, and resource development potentials of urban and rural areas are studied. Recreation farming, marinas, forest management for recreation are analyzed, and urban people eagerly seek answers to their recreation needs through these findings. Studies of the horse industry affect more urban than rural people. The efficiency studies related to supply, processing and distribution firms apply to urban consumers in terms of their food, fiber, and forest products costs, quality and variety. Urban consumers benefit from expanded studies of sod production and marketing ... and many others.

These urban-oriented programs are not limited to the College of Agriculture in the Land Grant institutions. State Departments of Agriculture and the USDA have cooperative and separate programs.

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