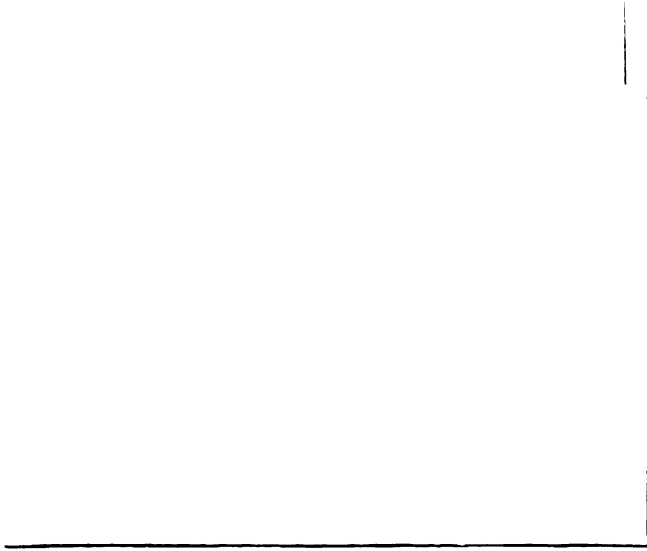
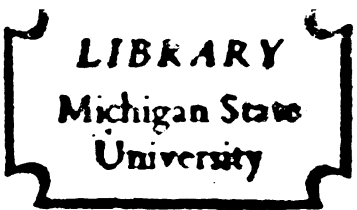


THE ROLE OF THE COOPERATIVE EXTENSION  
SERVICE IN LAND USE PROGRAMS

Thesis for the Degree of M. S.  
MICHIGAN STATE UNIVERSITY  
Nelson Ernest Ball  
1966



ROOM USE ONLY

AUG 21 1987

~~PAID~~ 64

D-32  
7A-102

---

## ABSTRACT

### THE ROLE OF THE COOPERATIVE EXTENSION SERVICE IN LAND USE PROGRAMS

by

Nelson Ernest Ball

This exploratory study was designed to assist the researcher develop an understanding of the features incorporated in the design of community resource development programs, sponsored or initiated by the Cooperative Extension Service. The role of the Extension Service in the amelioration of land use problems, a role which is gaining increasing attention as a result of the urbanizing trend throughout America, was selected as an area of study which promised to fulfill the researcher's objective.

Extension's past, present and potential future role in the alleviation of land use problems was determined through an analysis of available literature and the collective responses of fifty State Rural Areas Development Leaders, (or persons of equivalent rank in the Extension Service), to a questionnaire sent to them by the researcher. The literature analyzed consisted of nine case studies descriptive of past and present Extension land use programs.

Thirty of the fifty State Extension Leaders replying to the questionnaire indicated that their state was involved in an Extension land use program. These (thirty) respondents' answers to specific questions concerning the scope, construction



and results achieved in their state's program were analyzed. The analyses of the questionnaire response and the case studies were then compared and interpreted in relation to the study objective.

The evidence gathered indicated that land use programs are an ongoing part of Extension programming in thirty states, while these programs are not entirely consistent, there are similarities in construction, goals and results achieved. Generally, they are initiated at the local community or county level by the Extension Service in cooperation with citizen leaders and concerned public and private agencies, and are based upon citizen involvement in an educational land use program, involving situation study and leading to land use planning recommendations.

The following considerations for future land use programs were formulated on the basis of evidence from the literature review, questionnaire response and the researcher's insights.

1. Land use planning in urban, urban fringe and rural areas appears to offer an effective approach to the amelioration of the land use problems facing most American communities.

2. Designing an Extension land use program requires a step by step process leading to isolation of land use problems, determination of appropriate methods required to alleviate these problems, and selection of the needed

professional, technical and monetary resources necessary for fulfillment of program goals.

3. The Cooperative Extension Service can play a key role in the formulation of educational programs designed to alleviate land use problems. Extension should assist citizens understand the planning process so that they may advise the planner during the planning stage, be capable of objective interpretation of the resultant plan and successfully implement its provisions.

4. The determination of program content, educational methods, and area of operation, (county, region, statewide) is dependent upon the needs and characteristics of the community, county, region, or state involved.

5. Involvement of formal and informal community leadership in all phases of a land use program appears to be vital to program success.

6. The involvement of professional leadership and technical advice from agencies, groups or individuals external to the Extension Service is an important factor in a successful program.

These considerations for program design suggest several implications important in the genesis and successful operation of Extension land use programs.

1. The problems of land use in most states are not exclusively related to agriculture and rural life. The dynamic effects of urbanization must be considered in the formulation of an Extension land use program. Acceptance of a land use

role by the Extension Service implies a willingness to change. Change may mean reorientation of programs, retraining staff, and establishment of new patterns of communication and cooperation with farm and non-farm agencies and organizations.

2. An Extension land use program relies heavily upon three sources of leadership; the Extension staff, other professional and supportive agencies, and formal and informal community leadership. Training programs for all types of leadership, designed to clarify concepts, emphasize the effects of change and suggest appropriate means of coping with land use problems, seem to be a vital step in program initiation.

3. Participation by professional planners or planning agencies in the formulation and implementation of land use programs seems to be important to successful program planning. This implies a need for close liaison with planning agencies, (where they exist) and may mean employment of a professional planner on a consulting basis, during the formulation and throughout the educational phase of the program.

This study has emphasized the diversity of and growing interest in the field of Extension land use programming. The researcher suggests that a more intensive study of this area would yield much information of value to future land use programs.

THE ROLE OF THE COOPERATIVE  
EXTENSION SERVICE  
IN LAND USE PROGRAMS

By

Nelson Ernest Ball

A THESIS

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

MASTER OF SCIENCE

Department of Resource Development

1966

## ACKNOWLEDGMENTS

Many people have provided encouragement and assistance throughout my Master's degree program and especially in the development of this particular study. To all who assisted, named and unnamed, I express my sincere appreciation.

Special acknowledgment is extended to:

Dr. William J. Kimball, my thesis advisor and committee chairman, for his guidance in pursuing this study;

Drs. J. Allan Beegle, Mason E. Miller, and Milton H. Steinmueller, members of my study committee, for their assistance and suggestions;

The personnel of the Cooperative Extension Service in each state, who took time from busy schedules to complete the questionnaire;

John and Allan Steeves for their assistance in data analysis;

The government of the Province of New Brunswick for the post graduate study grants, which helped make this study possible;

My family for encouragement and support;

My wife, Lenora, whose perserverance in the compilation of this project contributed immeasurably.

Nelson Ernest Ball

## TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS . . . . .	ii
LIST OF TABLES . . . . .	v
ILLUSTRATIONS . . . . .	vi
LIST OF APPENDICES . . . . .	vii

### Chapter

I.	BASES FOR STUDY . . . . .	1
	The Problem . . . . .	1
	Purpose and Objectives of Study . . . . .	9
	Basic Design of Study . . . . .	10
II.	BACKGROUND CONSIDERATIONS . . . . .	15
	Changing American Society . . . . .	15
	Urban Sprawl and Land Use . . . . .	18
	Planning for Orderly Land Use . . . . .	30
III.	A LITERATURE REVIEW OF THE CONTENT AND CONSTRUCTION OF A NUMBER OF LAND USE PROGRAMS . . . . .	39
IV.	QUESTIONNAIRE DEVELOPMENT AND ANALYSIS . . . . .	59
	Information To Be Gathered . . . . .	59
	The Questionnaire . . . . .	60
	The Respondents . . . . .	63
	Analysis of Questionnaire Response . . . . .	64
V.	DISCUSSION OF LITERATURE REVIEW AND QUESTIONNAIRE RESPONSES AS THEY RELATE TO THE OBJECTIVES OF THE STUDY . . . . .	97

Chapter	Page
VI. SUMMARY, CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS . . . . .	113
Summary . . . . .	113
Considerations For Future Land Use Programs	115
Implications For The Design of Extension	
Land Use Programs . . . . .	121
Study Limitations . . . . .	123
Recommendations For Further Research . . . .	125
BIBLIOGRAPHY . . . . .	128
APPENDICES . . . . .	136

## LIST OF TABLES

Table	Page
1. <b>Percent of Taxes Paid by Major Groups       of Tax Payers Versus Percent of Benefits       Attained . . . . .</b>	24
2. <b>The Number of States Having a Land Use       Program During All or Part of the Period       June, 1955 to July, 1966 . . . . .</b>	65
3. <b>Number of Years Land Use Programs Have Been       a Part of Extension Programming During       the Period, June, 1955 to July, 1966 . . . .</b>	67
4. <b>A Summary of the Reasons Given by Extension       Leaders for Beginning an Extension Land       Use Program, July, 1966 . . . . .</b>	68
5. <b>Goals of Land Use Programs As Reported by       Extension Leaders, July, 1966 . . . . .</b>	69
6. <b>Summary of Agencies, Groups, Organizations       and Individuals Providing Assistance In       Extension Land Use Programs at Local,       Regional and State Areal Levels, July, 1966</b>	71
7. <b>Rank Order of Inclusion of Phases, Study -       Education - Planning in Land Use Programs       As Reported by Twenty-eight Extension       Leaders, July, 1966 . . . . .</b>	72
8. <b>Groups or Agencies Participating in Land Use       Study and the Area Level of Their Involve-       ment in Nineteen States, July, 1966 . . . .</b>	74
9. <b>Methodology of Group or Agency Involvement       in Land Use Study by Area Level in Nineteen       States, July, 1966 . . . . .</b>	75
10. <b>States Reporting Completion of a Land Use       Inventory as a Result of Land Use Study,       July, 1966 . . . . .</b>	77
11. <b>Target Audiences for Land Use Education Pro-       gram and the Area Level of Their Involve-       ment in Twenty-six States, July, 1966. . . .</b>	79



Table		Page
12.	Land Use Education Audiences by Area Level in Twenty-six States, July, 1966 . . . . .	79
13.	Major Educational Methods Used in Extension Land Use Education Programs by Area of Use in Twenty-six States, July, 1966 . . . . .	81
14.	Specific Methods Used by Extension in Educational Land Use Programs, by Areas of Use in Twenty-six States, July, 1966. . . . .	82
15.	Extension Leaders Evaluation of Extension's Educational Land Use Programs in Twenty- six States, July, 1966 . . . . .	84
16.	Groups, Agencies, Individuals Involved in Land Use Planning Programs and the Area Level of Their Involvement in Twenty-one States, July, 1966 . . . . .	85
17.	Specific Groups, Agency, Individuals Working With Extension in Land Use Planning Programs and Their Level of Involvement in Twenty-one States, July, 1966 . . . . .	86

## ILLUSTRATIONS

Illustration		Page
1.	Questionnaire Responses Indicating Scope of Extension Land Use Programs . . . . .	66

## LIST OF APPENDICES

Appendix	Page
A. Correspondence With State Rural Areas Development Leaders and Questionnaire on Extension Land Use Programs In The United States . . . . .	136
B. Questionnaire Response Coding System . . . . .	151

## CHAPTER I

### BASES FOR STUDY

#### The Problem

In mid November, 1620 after two months on the stormy North Atlantic, the tiny ship "Mayflower" hove to off the shores of Cape Cod. All but the hardiest of its passengers were overwhelmed by the wilderness that faced them and unprepared for its many challenges.

Yet unprepared as they were, the colonists brought with them three things which Udall credits with eventually changing the face of the continent. First, they brought a new technology; second, they possessed a "cast of mind", which made them want to remake North America; and third, they brought a concept of ownership and property rights.<sup>1</sup>

Technology has been and is now an integral part of man's relation to land. The ability to use technology to extract the many and varied properties of land for his enjoyment, comfort and security has been one of man's greatest victories. The social arrangements, laws and customs man has applied to land, its use and ownership, are another part of his relationship to land. These arrangements have been responsible for our system of land use and land tenure.

---

<sup>1</sup>Stewart L. Udall, The Quiet Crisis (New York: Holt, Rinehart and Winston, 1963), pp. 13-15.

Though we may refer to technology and its effect on land, or various social arrangements and their effect on land, basically land use is the preserve of the individual person.

"Though we refer to land use changes, in every case there are flesh and blood people behind the changes,-- noble people, selfish ones, brave, timid, great and ordinary . . ."<sup>1</sup>

Thus, it may be generally stated that land use and land use change is a function of individual and societal decision making as affected by technologically induced social change.

The first European settlers arriving in the United States were greeted by a vast wilderness, populated by less than one million American Indians. As these first settlers overcame obstacles, early settlement began to grow at a rapid rate. The census of 1790 showed a population of 3.9 million people, five percent of whom were urban. The rural population at that time was almost exclusively engaged in agriculture. Settlement continued with westward migration beginning early in the nineteenth century, by 1850 agriculture had reached the prairies and at the turn of the twentieth century much of the United States had been settled.

The first two decades of the twentieth century were the turning point in agricultural land use. Agricultural expansion continued, but its areal expansion was about over. Urban areas, in contrast, began to expand. Automobiles,

---

<sup>1</sup>Marion Clawson, Man and Land in the United States (Lincoln: University of Nebraska Press, 1964), p. 4.

improved highways, increased mobility, reduced working hours, more leisure time, rising incomes and a technological revolution in agriculture, all were responsible and set the stage for the explosive urban growth which was on the horizon.

The greatest change in land use since 1920 has been doubling of areas in special purposes uses, including highways, parks and urban residential areas. During the 1950's these uses absorbed 2,000,000 acres per year. Cropland, grassland and pasture were the source of forty percent, forests forty percent and twenty percent came from idle land. Expansion of requirements for land for non-agricultural uses has affected agricultural land, in some areas agricultural land has shifted totally to special purpose uses, while in others farming operations have continued in the urban fringe. The impact of urban encroachment on agriculture is best illustrated in increasing tax burdens, tax levies in urban fringe areas may, and often do, exceed the productive capacity of the land for agricultural use.<sup>1</sup>

The trend to urban uses is almost certain to continue. Scofield reports that between 1950 and 1960 the population of the central city increased eleven percent, while the adjacent fringe areas increased a phenomenal fifty percent and wholly rural counties only seven percent.<sup>2</sup> The increasing population

---

<sup>1</sup>The foregoing historical sketch of the changing land use situation is based upon the writings of Mark M. Regan and Hugh Wooten, "Land Use Trends and Urbanization", A Place To Live, The Yearbook of Agriculture (Washington, D.C.: The United States Department of Agriculture, 1963), pp. 59-63.

<sup>2</sup>William H. Scofield, "Values and Competition For Land", A Place To Live, The Yearbook of Agriculture (Washington, D.C.: United States Department of Agriculture, 1963), p. 64.

in suburban and fringe areas has increased the demands on rural government. The new resident of the suburb wants services equal to those in the city. Snow removal, improved highways, schools, the list is almost endless. Farmers also face new problems where suburban development is uncontrolled, drainage patterns may be altered, streams polluted and nuisances created.

As Stevenson once said:

There is a new America every morning when we wake up. It is upon us whether we like it or not. This new America is the sum of the many small changes--a new subdivision here, a new school there, a new industry where yesterday there had been vacant swampland--changes that add up to a broad transformation of our lives. Our task is to guide these changes, for though change is inevitable change for the better is a full-time job.<sup>1</sup>

Our population and technology are increasing daily. With each forward step of these two variables, the problems of land use become more complex. Governmental decisions affecting these problems have not kept pace. As a result, we are now faced with problems in our cities, suburban, urban fringe, and rural areas. The broad problems of the rural areas differ only in degree from those of the purely urban fringe areas. As Suggitt has put it: "Both are floundering frantically in the vortex of changing circumstances."<sup>2</sup> Rowlands expresses much the same sentiment as he comments on

---

<sup>1</sup>W. A. Rowlands, "Today's Need For Planning and Zoning", *Journal of Soil and Water Conservation*, Vol. 17, n. 2, (March-April, 1962), pp. 62-64, citing Adlai Stevenson.

<sup>2</sup>Frank W. Suggitt, "The Broad Problems of Rural Communities". A paper presented to the North Central Extension Directors Meeting (Manhattan, Kansas: September, 1960) (Mimeo)

land use change in the urban and rural areas: "Land use problems do not end at man-made political boundaries. The problems of the best use of land . . . overlap and overshadow all political boundaries."<sup>1</sup>

In an area of fringe growth the boundaries of the metropolitan area extend well out into the countryside. Rural people who live a considerable distance from "metro" feel its effects. Thus, both rural and urban people would seem to have a role and a responsibility to understand the dynamics of their situation and the means available to effectively deal with community problems. Timmons has summarized the problem and the need for citizen participation as follows:

There remains the need for more widespread public participation in land policy formation. There is a need for interested and informed citizenry to participate along with technicians in the process of developing land use plans and objectives and the means of guiding land use change . . .<sup>2</sup>

Citizen study of and participation in minimizing land use problems is not a simple process. Many land use issues are relatively complex; the significant facts about them are not easy to acquire or weigh. Practical alternatives for public action often depend to a major degree upon the economic aspects of costs and returns. A primary problem is the difficulty of illustrating the long range benefits of

---

<sup>1</sup>Walter A. Rowlands, A Citizen Development Plan For Every County (Madison: University of Wisconsin, Extension Service, Circular 617, 1963), p. 3.

<sup>2</sup>John F. Timmons, "Summary Remarks, National Conference on Land and People" (United States Department of Agriculture, January, 1962), p. 14. (Mimeographed)

planned land use and balancing these against probable or possible short term gains from unplanned use. With few exceptions, citizens are not in a position to make knowledgeable planning decisions, unless the facts are presented to them in an objective fashion.

The process of citizen planning for land use change, seems to require people and agencies with the ability to perform an educational role. Carroll Bottum has defined the role of the educator as:

The educator's role in community development involves helping a community to broadly identify and define its goals. He helps the community identify and rate the importance of various problems in attaining its goals. He helps the community put the problem in a decision making framework. He develops new alternatives for the community by inventing new arrangements or institutions to take care of new situations. He helps the community measure the costs and benefits of each alternative. He helps the community in its strategy in carrying out its objectives after they choose the approach they wish to use.<sup>1</sup>

One adult educational organization which has the organizational framework and financial arrangements required to undertake programs in the field of land use change is the Cooperative Extension Service (CES). This organization has been described as a "... partnership undertaking between each state Land Grant College and University and the U.S. Department of Agriculture, in cooperation with local govern-

---

<sup>1</sup>J. Carroll Bottum, Community Resource Development Defined, presented to the Second National Extension Workshop in Community Resource Development (East Lansing:Michigan State University, July, 1966), p. 3.



ments and local people."<sup>1</sup> It is one of the oldest adult educational agencies, having been established in 1914 by the Smith-Lever Act.<sup>2</sup> The Act states the primary purpose of the Cooperative Extension Service is ". . . to aid in diffusing among the people of the United States useful and practical information on subjects related to agriculture and home economics, and to encourage the application of the same . . ."<sup>3</sup> The CES in addition to being one of the oldest and most experienced educational organizations is also one of the largest. Extension participates in educational activities in almost all of the more than three thousand counties in the United States.

The Ad Hoc Committee on Extension Organization and Policy maintains that because of past experience and present competencies, Extension is equipped to give educational leadership to developmental programs such as community planning. They give the following as qualifications:

Knowing how to get people involved in studying their situations and developing specific plans for solving problems and achieving goals.

A great heritage of motivating and helping people organize to act, both individually and collectively, on their plans.

---

<sup>1</sup>Paul A. Miller, (Chairman), The Cooperative Extension Service . . . Today: A Statement of Scope and Responsibility, Subcommittee on Scope and Responsibility of the 1957 Extension Committee on Organization and Policy of the American Association of Land Grant Colleges and State Universities, (April, 1958), p. 3.

<sup>2</sup>U.S. Congress, Smith-Lever Act of May 8, 1914, amended, Public Law 83, 83d Cong., 1st. Sess., 1953.

<sup>3</sup>Ibid.

A cadre of people who are trained in bringing about economic development and social improvement of individuals and communities, and who will provide training to other staff members.

Respected staff members located in most of the communities of the nation.

Highly trained specialists in many of the departments of the University of which it is a part.

Recognition of the need for a team approach to both problems and areas and recognition to meet this need.<sup>1</sup>

In their policy statement of May, 1962, the Land and Water Policy Committee of the United States Department of Agriculture (USDA) lists twelve statements of policy. Four of these statements with direct bearing on land use changes are listed below.

The general objective of the Department of Agriculture is to encourage land and water uses that will yield continuing maximum benefits to the people of the United States.

The Department should offer guidance to the type of land use and the pattern of rural residence to ensure community improvement, expansion, and development.

The Department should cooperate with State and local agencies in furnishing technical services and information to guide land and water use where urban expansion is occurring.

Greater emphasis should be placed on participation in planning at local, state, and national levels to provide for the conservation and wise use of land and water resources.<sup>2</sup>

---

<sup>1</sup>Ad Hoc Committee on Extension Organization and Policy of the American Association of Land Grant Colleges and State Universities, Role of Extension in Economic Development and Social Improvement, Including the RAD Program (Washington, D.C.: November, 1962).

<sup>2</sup>U.S. Department of Agriculture, Land and Water Policy Committee, Land and Water Resources, A Policy Guide (Washington, D.C.: U.S. Department of Agriculture, May, 1962), p. 3.

While this policy statement does not specifically mention the CES, it might be assumed that partially at least, the CES, because it is the educational arm of the USDA and because of its activity at the state and local level, would be expected to act on these statements of policy in some manner. Legally it has the power to act and practically, it is backed by the resources of the Land Grant University, a large number of cooperating USDA agencies, and many years of adult education experience.

The role of the Cooperative Extension Service in alleviating the problems of land use change is of increasing concern to Extension Service Administrators, specialists and county workers. Evidence of this concern is evident when the content of annual state Extension conferences, professional meetings of Extension workers and the literature on land use change are reviewed. These concerns along with the author's personal experience as a former employee of an Extension agency in Canada, generated interest in studying the land use programs of the Cooperative Extension Service.

#### Purpose and Objectives Of This Study

This exploratory study was designed to assist the researcher develop an understanding of the features incorporated in the design of community resource development programs, sponsored or initiated by the Cooperative Extension Service. The role of the Extension Service in the amelioration of land use problems was selected as an area of study which promised

to fulfill the researcher's objective. This study was undertaken in the belief that it would yield information of sufficient reliability to allow formulation of recommendations for future Extension programs in this area, and further that this information might be useful to others who might wish to pursue more comprehensive and precise research on this subject.

### Basic Study Design

The primary concern of this study was, to determine the features which might be part of future Extension land use programs. To attain this objective, past and present Extension land use programs were analyzed. The data used in this analysis were obtained from three sources.

1. A literature review of all available publications descriptive of Extension land use programs. The objective of this review was to determine in general terms the content and organization structure of Extension land use programs in the states from which literature was available. The material from each state reviewed was summarized, and case studies describing each state's program were formulated and analyzed.
2. A mailed questionnaire was sent to the "Rural Areas Development Leaders" or person with equivalent responsibility, in each state of the United States. The questionnaire was specifically designed for this study<sup>1</sup> and focused on the period beginning with "Program

---

<sup>1</sup>A sample questionnaire is enclosed in Appendix A.

Projection" in June, 1955<sup>1</sup> and extending to the present, (1966). The responses to the questionnaire were recorded on the questionnaire by the respondents. The returned questionnaires were then coded and the data entered on punch cards or IBM cards. The data were then programmed on the CDC 3600 computer<sup>2</sup> for statistical analysis, and an "analysis of contingency tables" was thus obtained.<sup>3</sup> The selection of the sample and formulation of the questionnaire are further discussed in Chapter IV.

3. Insights based upon notes and classwork in resource development and over seven years of related experience in resource development and Extension efforts in Canada.

Data obtained in the literature review and data gathered in the questionnaire were compared and analyzed. To efficiently analyze the data from both sources and relate it to the study objective, it was assumed that a framework for analyses was necessary. The makeup of the analytic framework

---

<sup>1</sup>1955 was selected as a beginning date for two major reasons: It marks the beginning of "Program Projection", a new departure in building Extension programs with the aid of the people for whom the program is designed; the possibility of confusion with land use programs initiated under the "Mount Weather Agreement" was substantially eliminated.

<sup>2</sup>The Michigan State University Computer Center, where the study data were processed, uses the CDC 3600 computer, which is manufactured by Control Data Corporation, Minneapolis, Minnesota.

<sup>3</sup>"Analysis of contingency tables" is the name of the computer program applied to the data collected. Descriptions of procedures used in this program are available from the library of the Michigan State University Computer Center.

was determined on the basis of: a review of pertinent materials related to Extension program planning, construction and goals; insights obtained from attendance at a seminar on land use programs sponsored by the Michigan Cooperative Extension Service, the Second National Workshop in Community Resource Development, and regular meetings of the Land Use Guidance Committee of the Michigan Cooperative Extension Service; and from interviews with Extension Administrators and Specialists in the Michigan Cooperative Extension Service.

As a result of this procedure, a four step analytic framework was developed. All data reviewed were categorized according to the following steps:

- Step 1. To determine the extent, average tenure, reasons for and goals of Extension land use programs in the U.S.
- Step 2. To determine the extent to which agencies other than Extension participated in the various land use programs and the type of coordination used to effectively work with these agencies.
- Step 3. To determine the degree to which the various states were involved in the phases, land use study, education and planning, the areal levels of involvement, the persons or groups involved, the Extension methods used and the degree of success attained.
- Step 4. To obtain the subjective opinions of Extension workers in Administrative or Specialist positions, related to land use and land use program construction.

## Terminology

Cooperative Extension Service--refers to the off-campus, non-classroom educational institution which is a part of the Land Grant University. It is usually a unit of the College of Agriculture and Home Economics.

The Cooperative Extension Service has a Congressional charge to provide the people of the United States with educational assistance in agriculture, home economics and subjects related thereto. Educational assistance is provided through a field staff backed by the resources of the Land Grant University and consists of personal contacts, group activities and the use of mass media.

Land Use--refers to the use that man individually, in groups and in communities, makes of his physical environment. His physical environment being interpreted as the earth's surface, including, water surface, building sites, farmland and soil, forests, mineral deposits, water resources, access to sunlight, rain, wind and temperature and all those man-made improvements attached to the surface of the earth.

Land Use Program--a land use program for the purposes of this paper may be defined as an organized attempt by an agency, group, or individual, (in this case, the Cooperative Extension Service) to work with communities, counties or state-wide, in an effort to solve land use problems. Further, it involves a process of: (1) study, leading to an inventory of the land use situation; (2) education, leading to an awareness of problems and alternative solutions; (3) planning,

resulting in the development of blueprints for present and future land use. In the sense of this definition the end result may be activity in any, all, or none of the following; zoning ordinances, land use plans, subdivision regulations, special tax programs, community action, etc.

Rural-urban fringe--the area just beyond the suburbs of a city, containing essentially open country, and characterized by mixed rural and urban land use patterns. It may also be defined as being located beyond the legal limits of a city, in the "agricultural hinterland", exhibiting mixed patterns of land use, and being populated by people having rural and urban occupation. The area is usually unincorporated, has non-existent or lax zoning regulations, few if any municipal services and has a good potential for increased population density.

Urbanism--". . . a mode of living by human beings characterized by a concentration of people in a relatively small area, necessitating special physical structure, special modes of conduct, and special regulations in order to sustain human life."<sup>1</sup>

Urbanization--refers to the proportion or else a rise in the proportion of the population concentrated in or moving to urban settlements.<sup>2</sup>

---

<sup>1</sup>Frank P. Zeidler, "Some Social and Cultural Consequences of Urbanism", Address to the Great Cities School Improvement Workshop, August, 1962. (Mimeographed)

<sup>2</sup>Kingsley Davis, "The Urbanization Of The Human Population", Scientific American, Vol. 213, No. 3 (September, 1965), p. 41.



## CHAPTER II

### BACKGROUND CONSIDERATIONS

In Chapter I the problem was described in general terms and the purpose and design of the study was outlined. The purpose of this Chapter is to review literature pertinent to the changing land use situation in America, the problems it has spawned, and the use of planning as a solution to these problems.

#### Changing American Society

The city and urban areas have become the central focus of modern society. The emergence and development of the city has been a function of: the size of the total population; control of the natural environment; technological development; and developments in social organization. As each of these factors evolved over history, so has the city evolved. Cities have passed through five economic stages, each stage being related to the above four functions: a collectional economy; cultural nomadic economy; settled village economy; town economy; and metropolitan economy. As the city evolved through these stages it progressed from a centripetal to a centrifugal form of growth. The metropolitan city of today is the result of centrifugal forces generated by the movement from the center of the city. The tendency for the more affluent to move out from the center of the city and the

less advantaged to move in, has created the foremost problem in most metropolitan cities.<sup>1</sup>

Urbanization has been the dominant feature of the changing American society. Our basic mode of life is no longer rooted in agriculture, but rather in a complex industrial economy founded on technology and geared to the automobile, jet airplane, electricity, precision tools, machines and computers. The self sufficient idyllic community of colonial days is gone. It has been replaced by great urbanized areas characterized by specialization and impersonality.

"One of the most significant implications of population and occupational change is that rural America is no longer farm America." The shifts in population have been so extensive and the decline in farm employment so rapid in the past few years, that farming is performing a decreasing role relative to the total picture.<sup>2</sup> Beal and Bogue in a study of U.S. population trends between 1950 and 1960 outline the following shifts in population which underline the great changes taking place. (1) There was a heavy population movement to metropolitan areas. (2) Metropolitan growth was concentrated in

---

<sup>1</sup>A detailed description of the trend to urbanization may be found in: Phillip M. Hauser and Leo F. Schnore, The Study of Urbanization, (New York: John Wiley and Sons, 1965), pp. 1-49.

<sup>2</sup>John H. Southern, "Implications of Population and Occupational Change for Rural Areas Development", Paper read at the 40th. Annual Agricultural Outlook Conference, Washington, D.C. (U.S. Department of Agriculture, Economic Research Service, 1962), pp. 3-5. (Mimeographed)

suburban metropolitan rings. (3) In non-metropolitan areas there is a strong urbanizing trend. (4) Suburban fringes appeared around cities, towns and even villages.<sup>1</sup>

The population in the urban fringe areas is composed for the most part of people who are employed in the urban area, but prefer to live in the rural areas. The fringe area is an area of contrasts, as well as an area of high growth. The image of suburbia with its row upon row of identical houses populated by a homogeneous mass of people of similar social and economic status does not always apply in the fringe. Tar paper shacks and stately mansions share the fringe with industrial parks and producing farms. People from all walks of life, migratory farm laborers, prosperous farmers and presidents of large corporations, may be found living in contiguous neighborhoods.

Andrews and Eshleman in a study of the changing community concluded that urban areas expand in three ways. Concentric expansion of the central city by addition of new subdivisions; development of non-contiguous clusters of residences and commercial areas along roads and highways leading to the city; and the indiscriminate location of individual homes in the open country farming areas.<sup>2</sup> Understanding the changing

---

<sup>1</sup>Calvin L. Beale and Donald J. Bogue, Recent U.S. Population Trends and Their Causes (Washington, D.C.: U.S. Department of Agriculture, 1962), p. 1.

<sup>2</sup>Wade H. Andrews and J. Ross Eshleman, The New Community, Ohio Agricultural Experiment Station, Bulletin No. 929 (Wooster, April, 1963).

patterns of the new community in rural areas is of fundamental importance. The result of urban expansion into rural areas has been given many names. Perhaps the most descriptive is "urban sprawl". Urban sprawl and its effect on the community will be discussed in the next section of this Chapter.

### Urban Sprawl and Land Use

The shifting of land areas from one use to another is a perfectly natural phenomenon in a dynamic economy--particularly so in an economy characterized by a growing population, expanding demands for land products, high percapita incomes, and considerable free agency in operators decisions regarding the ownership and use of land resources.<sup>1</sup>

Land resources move to those bidding most for control and to those uses which offer the highest returns. Wingo indicates the allocation of land takes place through a set of markets. The workings of these markets as they interact with our political institutions produce the indiscriminate type of growth called urban sprawl.<sup>2</sup>

Although the land supporting our cities is a small fraction of the total land area of the nation, the land affected by the city is not. Vacant land on the edge of metropolitan areas is being absorbed at the rate of 1,000,000 acres per year,<sup>3</sup> capital investments in homes, shopping centers, streets

---

<sup>1</sup>Raleigh Barlowe, "Minimizing Adverse Effects of Major Shifts in Land Use", Journal of Farm Economics, Vol. XL, No. 5, (December, 1958), p. 1339.

<sup>2</sup>Lowdon Wingo, The Use of Urban Land: Past, Present, Future, Resources for the Future, Reprint 39 (Washington, D.C.: July, 1963).

<sup>3</sup>Committee For Economic Development, Guiding Metropolitan Growth (New York: 1960), p. 23.

and other improvements are fixing the environment for two or more generations.

William H. Whyte, Jr. in an article discussing urban sprawl says:

The problem is not an absolute shortage of land . . . The problem is the pattern of growth or rather the lack of one. Because of the leapfrog nature of urban growth, even within the limits of most big cities there is to this day a surprising amount of vacant land . . . And it is with this same kind of sprawl that we are viewing the whole metropolitan area of the future.

Sprawl is bad aesthetics, it is bad economics. Five acres are being made to do the work of one, and do it very poorly. This is bad for farmers, communities, industry, utilities, railroads, recreation groups and is even bad for the developers.<sup>1</sup>

Walrath in a study of impacts of changes in land use, outlines some of the effects of urban growth. He points out that shifts in land use strongly affect the remaining farmers. He also recognizes that there are important problems that affect the community, school district, town and county in which the farms are located, as well as the contiguous neighboring areas with which they unite to form a larger area. Some of the more important problems are: farm problems--changes in farm operation, price of land, fencing, trespass, taxes, weeds, highway traffic and entrapment through the process of being surrounded by subdivisions. Community problems: schools, tax base, highway relocation, community services, transportation

---

<sup>1</sup>William H. Whyte, Jr., "Urban Sprawl", Reprinted from Fortune, January, 1958 (Detroit: Area Development Division, Detroit Edison), pp. 103-104.

and recreation.<sup>1</sup> A study by the University of Michigan supports the above and further expands on the problems created. They contend that sprawl development also tends to lower construction quality, pre-empt desirable land, block access to backlands, reduce travel speed on highways and increase water pollution.<sup>2</sup>

The remainder of this section will be devoted to an investigation of the impact of urbanization and sprawl on: agriculture, taxation, community services, transportation, and recreation.

#### Agricultural Land Use

The United States today faces no real crisis of land availability. For another generation or longer--as far as we can reasonably look ahead our position will not be critical. We can meet our own needs for food, fibre, forest products, recreation, and all the rest, we can even make modest contributions to the needs of other countries . . .<sup>3</sup>

While it is often suggested that the supply of land is insufficient, the above quotation from Marion Clawson and Ottoson's statement that United States' agriculture will be able to meet 1980 production with eleven percent less land than was in crops in 1959 suggest that the nation is not yet

---

<sup>1</sup>Arthur J. Walrath, Impacts of Changes In Land Use, U.S. Department of Agriculture, Agricultural Research Service and Wisconsin Agricultural Experiment Station, Bulletin No. ARS 43-95, (1959).

<sup>2</sup>University of Michigan, School of Natural Resources, "The Redeployment of Land, Water and Human Resources", Regional Development Studies II (Ann Arbor: June, 1962).

<sup>3</sup>Marion Clawson, "Land For Americans", Resources For The Future Policy Background Series (Chicago: Rand McNally and Co., 1963), p. 2.

deficient in surplus cropland.<sup>1</sup> In fact, it is suggested by some authors including Clawson, that the present production surplus represents one of the nations prime land use problems. Bottum suggests that if agriculture continues to be progressive and additional markets are not available, the retirement of land from agriculture will become an economic consequence of agricultural progress.<sup>2</sup>

Assuming that we still have a plentiful supply of agricultural land available; why is urban sprawl and the trend toward urbanization important to agriculture?

The economic impact of city growth on agriculture is more important than the actual loss of farmland. The most evident and perhaps most talked about economic problem of the farmer facing urbanization is the increased valuation of farmland and its accompanying increase in property tax. The increasing value of land adjacent to their farms makes it almost impossible for farmers to expand, while taxes have on occasion exceeded the productive capacity of the land.<sup>3</sup>

A second problem for agriculture in the fringe is shifting of farmland to non-farm uses; these non-farm uses

<sup>1</sup>Howard W. Ottoson, (ed.) Land Use Policy and Problems in the United States (Lincoln: University of Nebraska Press, 1963), pp. vi-vii.

<sup>2</sup>J. Carroll Bottum, "Land Retirement As a Solution of Supply-Demand Imbalance", Dynamics of Land Use--Needed Adjustments, Earl O. Heady, Director (Ames: Iowa State University Press, 1961), pp. 193-197.

<sup>3</sup>The effect of urban fringe growth on farming is discussed in Arley D. Waldo, "Farming on the Urban Fringe", A Place To Live, The Yearbook of Agriculture, U.S. Department of Agriculture (Washington, D.C.: 1963), pp. 59-63.

will increase significantly by 1980. Farmland is now being used at the rate of one acre for every four to six persons added to the urban population.<sup>1</sup> Barlowe in discussing the movement of land out of agriculture in Michigan, outlines three use classes with applicability to urbanizing areas throughout the country. A substantial amount has gone into construction of new highways; large areas adjacent to urban areas have been taken for residential homesites, shopping centers and other urban uses, including speculative holding of lands; a residual class has shifted to lower uses, including idling and abandonment.<sup>2</sup>

Expanding urban areas have created many points of conflict between the farmer and non-farmer. Farm problems caused in large degree by urbanization include high taxes, high cost of public service and development, farmland waste, stream pollution and flood control. These are important issues, important to agriculture and to the nation as a whole. The county of Santa Clara Planning Department has given the following three points as major issues which agriculture must face. While these issues specifically pertain to Santa Clara County, they seem to be relevant to the whole subject of agriculture and urban sprawl and provide a fitting summation of agricultural land use problems in urban fringe areas.

---

<sup>1</sup>Ottoson, Loc. Cit.

<sup>2</sup>Raleigh Barlowe, "Natural Resources", Project 80, Land and Water Resources, Research Report 52, Michigan State University, Agriculture Experiment Station (East Lansing: 1966), p. 8.



1. Are there economic or aesthetic reasons why the county should attempt to preserve some of the agricultural base?
2. In the light of pressures for the urbanization of land can agriculture continue indefinitely as a significant feature of the county's landscape?
3. Assuming that land will be needed for urban expansion which agriculture lands should, or could be preserved, if any?<sup>1</sup>

### The Urbanizing Influence and Taxes

Another problem that is causing much dissatisfaction is the assessment of land in the areas around growing cities. It is most acute in those areas where farmland is being transferred into residential or industrial sites.

As more people move into the suburbs, the demand for land on which to build houses, shopping centers and schools, stimulates the land market, and a considerable increase in land values is the usual result. When property is assessed in relation to its market value, as most state laws require, the assessed value is determined by comparison with the selling price of similar land in the area. The land market, because it is the final arbiter of which use shall continue on the land, may force farming out and allow the highest and best use, usually subdivision, to become predominant.

The new suburban communities often have tax problems. Boylan has pointed out that the principal sources of local

---

<sup>1</sup>Santa Clara Planning Department, Land Use Issues In Santa Clara County, (San Jose, California: December, 1963), p. 8.

tax funds are: taxes on private property (this is the major source); special and sales taxes; licenses and fees; self paying operations; shared taxes with the state and federal government. He gives the following breakdown of the average percent of property tax paid by major groups of urban land uses in thirty American cities.

Table 1. Percent Of Taxes Paid By Major Groups Of Tax Payers Versus Percent Of Benefits Attained<sup>1</sup>

Tax Payer Group	% Of Taxes Paid	% Benefits Received
Residential	54	80
Business	28	10.5
Industrial	15	7
Vacant Land	3	2.5

This breakdown, (Table 1) points up the rather unstable tax base in the typical suburban or fringe community, consisting largely of residential uses. When these communities receive a rapid influx of urban families, they encounter problems of paying for new schools, community facilities and new services with a less than adequate tax base.

Taxation can also have the effect of increasing urban sprawl, by causing "leapfrogging" by developers. The process can best be described as, the cycle of interacting decisions of the developer and the tax assessor. The cycle has five steps and is capable of repeating itself.

---

<sup>1</sup>Miles Boylan, Economics of the Community (Chicago: Scott, Fausman and Company, 1961), p. 76.

1. Developers seeking cheap land move into an agricultural area.
2. The county or city grants zoning and extends facilities.
3. Adjacent land is considered to have urban potential and the price increases.
4. The adjacent land is assessed for urban potential at an increased price.
5. The developers bypass these now high priced areas in favor of cheaper lands.<sup>1</sup>

The subjects of taxation and community services are inextricably interwoven in the workings of the modern community. The next part of this section is an attempt to describe the affect of urban sprawl on community services.

### Urbanization and Community Services

Eight of every ten homes are now being erected in the suburbs and each addition adds a new service burden to these communities.<sup>2</sup> Each new house in a suburban development requires a package of public services which requires capital outlays ranging from \$2500 to \$3500<sup>3</sup> or more, depending upon the degree of utilization and the density of the development.

Many of the new residents in suburban and fringe developments are former city dwellers who are used to the benefits of public services. Other fringe residents are from rural areas where, because of the space available, there wasn't

---

<sup>1</sup>County of Santa Clara Planning Department, Op. Cit., p. 6.

<sup>2</sup>Committee For Economic Development, Guiding Metropolitan Growth (New York: 1960), p. 14.

<sup>3</sup>Ibid.

a particular need for high cost services. Both types of people soon find that they have problems . . . , problems resulting from lack of developmental planning or because growth has been so swift that services have not been installed. They find that the community is becoming an unhealthy place to live because there are still primitive sanitation facilities, there isn't a good water supply, the soil is unsuitable for good drainage, streets and storm sewers are inadequate, as are provisions for fire protection, schools and playgrounds.

The continued trend to urbanization has meant many changes in the service requirements of suburban and fringe areas. The list of services that local government has to provide is long and detailed, the following are some of the more important: water, electricity, gas, sewage, storm sewers, disposal of solid wastes, garbage collection, police and fire protection, safety programs, public health programs, control of nuisances, stream and air pollution control, welfare, education, recreation, hospitals, libraries, street maintenance, record keeping, transit, regulation of buildings, housing, etc.<sup>1</sup> This is an impressive list and serves to emphasize the salient problems facing the rural township and the suburban city. Problems which are central issues in the use of land for residential and agricultural purposes; problems which have a direct bearing on the size and the satisfaction of human needs.

---

<sup>1</sup>For a detailed discussion see Boylan, Op. Cit., pp. 56-61.

### The Effect Of Transportation On Land Use

The development of a transportation system, providing an efficient, convenient and relatively cheap means of mobility has participated powerfully, if not decisively, in the changes that have taken place in the spatial distribution of people throughout the nation. With the development of the automobile and the superhighway the urbanite was no longer tied to the length of the street car track, suddenly he found that he could move out of the city and commute to his work from the hinterlands. With the realization of new mobility came the birth of the suburban and fringe dweller and the beginning of serious sprawl problems.

Typically, highways and railroads converge on the core of the city. As they radiate out through the hinterland they relate the concentrated economic activities of the cities central core to the dispersed population of the suburb and open country. The dynamic force of transport exerts a powerful role in development of the areas dependent upon it. New urban developments nucleate at points along the transport corridor. Gradually they expand outward and fill in the intervening land.<sup>1</sup> It can be truly stated that "Transportation facilities are a major means whereby land is given productivity and value."<sup>2</sup>

---

<sup>1</sup>The effect of transportation is described in; Lowdon Wingo "The Uses of Urban Land", Land Use Policy and Problems in the United States, ed., Howard W. Ottoson (Lincoln, University of Nebraska Press, 1963), p. 238.

<sup>2</sup>Marion Clawson, "Potential Demand for Non-farm Products and Services Provided by Agricultural Lands", Dynamics of Land Use: Needed Adjustments, Chairman, Earl O. Heady, (Iowa State University Press, 1961), p. 58.

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

While transportation is a prime factor in shaping land use, it uses relatively little land.

Dyckman in reviewing transportation studies in several American cities found that different types of land use generated different types of traffic flow. The studies showed that by manipulating land uses traffic could be controlled.<sup>1</sup> Thus, it would seem that there is a close interrelationship between transportation and the uses of land which it serves. It would seem that the problems faced by communities are significantly affected by the design and location of highways and other transportation systems.

#### Recreation and Open Space

The more men become crowded together in the tight cubicles of cities, the more they need and seek open space--space for privacy or space for flocking together, space for play and strenuous exercise or space for relaxation and contemplation, space for a distant view, space to sense man's age-old kinship to nature, to see grass and trees and clear blue sky, to feel the coolness of water and the warmth of soil.<sup>2</sup>

Clawson states, in terms of numbers of people affected, recreation as a major land use is second only in importance to urban uses.<sup>3</sup> He lists four factors as being responsible for increasing demands for outdoor recreation: the total population has risen; real income per-capita has increased; the

---

<sup>1</sup>John W. Dyckman, "Transportation in Cities", Scientific American, Vol. 213, No. 13 (September, 1965), p. 164.

<sup>2</sup>County of Santa Clara Planning Commission, Parks, Recreation and Open Space (San Jose, California, February, 1962), p. 1.

<sup>3</sup>Clawson, Land For Americans, Op. Cit., p. 35.

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43  
44  
45  
46  
47  
48  
49  
50



average work week has been shortened; improved travel facilities have allowed people to become more mobile.<sup>1</sup> While demands for recreation and open space are continuing, the impact of urban sprawl is threatening to alter the environmental qualities of open space and the qualities of the landscape adjacent to many American cities.

The question of preserving open space, of setting up parks and recreation areas is complicated--what kind of outdoor activities do we want? How much land and water do we need, to properly meet probable future demands for outdoor recreation? In considering these questions, the quality aspect of outdoor recreation must be kept in mind. One can estimate, subject to error, the probable future demand for outdoor recreation, under anticipated population, income, leisure time and other conditions. The demands will be based largely upon what people want and are willing to pay for.<sup>2</sup>

The questions of recreation and land use would seem to be rather unclear. Perhaps this is only to be expected when it is recognized that there is a vast difference in values attached to recreation and the types of recreation individual persons like. The fact remains, we must look to the effects of urbanization on open space in the urban and

---

<sup>1</sup>Clawson, "Potential Demand for Non-farm Products and Services Provided by Agricultural Lands", Op. Cit., p. 54.

<sup>2</sup>The factors involved in estimating the needs for recreation and open space are described in; Marion Clawson, "Land and Water for Recreation", Resources for the Future Policy Background Series (Chicago: Rand McNally and Co., 1963), p. 81.

rural areas, and we must also be aware of the effect that changing land uses may have on prime recreation areas.

Urban sprawl seems to be the product of many factors, not the least of which is the impact of the changing American society. Many land use problems and issues resulting from urban sprawl or associated with the changing society have been mentioned in this section of this chapter. It is not suggested that these are the only land use questions which America faces today, it is implied, however, that the land use problems in the suburbs and urban fringe areas are of foremost importance to all affected by them. Further, although the completely rural counties have not been discussed, most of the problems described also apply to them.

The question, what can communities do to cope with land use change might now be logically asked. The next section of this chapter outlines alternatives to many of the pressing issues of land use change.

### Planning For Orderly Land Use

Freedom of individual action in property use often results in the chaotic situation described in the previous sections of this chapter. Because freedom of individual action may mean freedom for the individual developer, but loss of freedom for his neighbor, group action is often needed to obtain maximum individual and social goals. The need for group action is most felt in areas where the maximization of the individual developers interest has an adverse effect on his

neighbors, community's or the nation's interest. Public direction of land use to protect the interests of the average citizen and to maximize the total social returns from land resources is often called for on these occasions.<sup>1</sup>

Public direction of land use in this instance is equated with planning for the best use of land. Planning may be said to have a number of functions:

Planning is a means of preparing for the future.  
 Planning helps to get at the root of problems.  
 Planning helps do first things first.  
 Planning helps set sound policies for development.  
 Planning is a technique for coordination.  
 The planning process is a means of correlating,  
 educating and inspiring.<sup>2</sup>

There are three basic steps in the planning process:

1. An inventory or stock taking of the assets and liabilities that the community now has.
2. A study of the community resources found in the inventory, and the development of a plan for the communities future.
3. The establishment of objectives or goals whereby the community can get from where it is now to where it wants to be.<sup>3</sup>

---

<sup>1</sup>For a more detailed description see; Raleigh Barlowe, Minimizing Effects of Major Shifts in Land Use, Op. Cit., p. 1340.

<sup>2</sup>Sears, Roebuck and Co., Community Planning Division, ABC's of Community Planning, (Chicago, 1962), p. 13.

<sup>3</sup>These three steps in the planning process were formulated from: W.A. Rowland's, The Planning Process, a paper given at Purdue University (La Fayette, Indiana, May, 1966), p. 2; and, Erling D. Solberg, Planning and Zoning to Prevent Land and Water Problems in Suburbia, address given to Urban Extension Agents Conference (Farmingdale, N.Y., 1962).

Planning involves more than a survey, and a portrayal of trends, it also involves a conscious effort to guide the course of future events to help achieve desired objectives. "Public planning is a process of making rational decisions about future actions aimed at the attainment of community goals."<sup>1</sup>

It would appear that land use planning has something of substance to offer to communities with land use problems. A number of authors have described the expected results from land use planning. A composite of their various ideas is included in the following list of expected returns from a land use planning program.<sup>2</sup>

1. A workable land use pattern for all uses, based on the goals of the community.
2. A programmed approach to building of community services and institutions.
3. Reservation of the best quality land for agricultural purposes, if this is the wish of the community.
4. A guide for private landowners in making individual plans to develop their property.

---

<sup>1</sup>W. M. Carrol, R. C. Wingard, and C. J. Wingfield, Rural Land Use Planning, Pennsylvania State University, College of Agriculture, Extension Service (University Park, 1965), p. 3.

<sup>2</sup>These ten expected returns are based upon Stuart Chase, "Zoning Comes to Town", Reprinted from Reader's Digest, February, 1957 (Pleasantville, New York: Reader's Digest Associates, 1957); Israel Stollman, "The Uses and Principles of Planning", A Place to Live, The 1963 Yearbook of Agriculture, (Washington, D.C., U.S. Department of Agriculture, 1963), pp. 367-376; Walter A. Rowlands and D. A. Yanggen, "What's Your Stake in Land Use Planning?" Crops and Soils, Vol. 15, No. 4 (March-April, 1963), pp. 2-5.

5. A separation of the various functions within the community.
6. A transportation system complimentary to the community's needs and the desired patterns of land use.
7. Provisions for the preservation of the more fragile of land use arrangements.
8. Delineation of flood plains.
9. Preserve and develop recreation, open space.
10. Helps keep the community arranged in an economically efficient, physically attractive and socially acceptable manner.

A community plan does not necessarily mean that these benefits will be realized. To achieve these benefits the participation of the community's citizens in the planning process is essential. Citizen planning for community development is a complex process, involving the resources and technical ability of government and private consultants and the knowledge, desires and goals of the citizens of the community.

To facilitate an understanding of what is meant by the process of citizen involvement with government and private consultants in the process of community planning, it is proposed that this process might well be called community resource development (CRD). The definition of community development given by the International Cooperative Administration is used here to broadly define community resource development:

It is a process of social action in which the people of a community organize themselves for planning and action; define their common and individual needs and problems; make group and individual plans to meet their

needs and solve their problems; execute these plans with a maximum of reliance upon community resources, supplement these resources, when necessary with services and materials from governmental and non-governmental agencies outside the community.<sup>1</sup>

CRD is organizing for planning and action; by local people, for the future development of their community. In the context of land use, the community may be single "local" community, a township, county or a region (all or parts of two or more contiguous counties.) The resources are the land which is defined in the economic sense by Barlowe as:

"The economic concept of land can be defined as the sum total of the natural and man-made resources over which possession of the earth's surface given control."<sup>2</sup>

Development means, planning for the elimination or at least alleviation of the land use problems defined by the citizens of the community.

What are some of the principles inherent in planning and action within the parameters of the CRD concept? The following have been developed as a result of a review of a number of publications on the philosophy of community development.

1. CRD involves the active participation of local people in a concerted effort to improve their own social and economic condition.

---

<sup>1</sup>F. H. Sehnert, Community Development, quoting International Cooperative Administration, (Carbondale, Southern Illinois University, 1961), p. 13.

<sup>2</sup>Raleigh Barlowe, Land Resource Economics (Englewood Cliffs, N.J.: Prentice-Hall Inc., 1963), p. 7.

2. CRD means beginning where the people are and moving in the direction they choose. The citizens of the community have the responsibility of determining the direction of their development efforts.
3. Outside resources, including the services of government and private consultants, are utilized by local citizens at each stage of the development process.
4. A CRD program should be based on sound, hard, facts; facts must be used in a logical, systematic and organized way to promote the planning and development effort.
5. A CRD program should be based upon the needs of the community, including both social and economic aspects of community life. It is concerned not only with increasing economic productivity and per capita income, but also the social, educational and cultural phases of community life. Economic development on a cost - benefit basis is not enough, the social costs and benefits must be considered.
6. CRD is and should be essentially an educational process. It involves identification and training of local leadership, studying problems and conflicts; learning how to solve problems; it is a process through which people learn to think, make their own decisions, and become "masters of their own destiny".
7. Voluntary cooperation, unspoiled by utilitarian motives or coercion, is the key to an effective CRD program. Cooperation must extend in two directions; among the

citizens of the community and between the citizens of the community and outside resource people providing technical advice, funds and guiding counsel.

8. CRD is based on group action on an organized basis.

It has been most effective when communities have organized in a democratic fashion and attacked their problems in a planned systematic manner.<sup>1</sup>

When the community has completely analyzed its situation, considered the views of all the citizens, appraised its future in light of past developments and the external forces and factors over which it has no control; then it should develop, within the broad guidelines of the goals determined through the CRD process, a plan for its future development. Completion of the plan is a major step toward directing the future land use situation of the community. It is unrealistic to assume that a plan alone will cause poor land use to disappear. Implementation will require the intelligent use of available planning tools.

There are two major types of planning devices: first, there are informal controls including, customs, mores, public opinion, education; secondly, there are formal controls, zoning ordinances, subdivision regulations, the official map,

---

<sup>1</sup>These principles are based upon review of: T.R. Batten, Communities and Their Development (London, Oxford University Press, 1957); Arthur Dunham, Some Principles of Community Development (Ann Arbor, University of Michigan, 1960); Peter DuSautoy, The Organization of a Community Development Program (London, Oxford University Press, 1962); Gordon L. Lippitt, "The Importance of Human Resources in Community Resource Development", Proceedings, First National Extension Workshop in Community Resource Development (East Lansing: Michigan State University, 1965).



public purchase, taxation agreements, new development techniques (cluster housing developments, for example), the land bank, priority development districts, long term contracts, urban renewal, condemnation, annexation by an adjacent municipality, and the various codes, setting building structure, population density, etc. Formal controls are backed by the power of legislation and therefore have a legal basis, informal controls lack legal backing, but may in the long term be a useful method of controlling land use.<sup>1</sup>

Planning tools, with the exception of informal controls, are legal instruments regulating the use of land by individuals or groups. They are of most value when they are used in conjunction with a community plan developed by the community or by other groups with the assistance of the community.<sup>2</sup>

In the preceeding sections of this chapter, the effect of the changing American society and its offspring urban sprawl, on the American community was outlined. This section of this chapter described methods which communities have used successfully to combat community problems with community planning.

---

<sup>1</sup>Tools for the direction of land use are more fully discussed in: Raleigh Barlowe, Minimizing Effects of Major Shifts in Land Use, Op. Cit., p. 1340; Sears Roebuck and Company Community Planning Division, Op. Cit., pp. 21-23; and Gerald F. Vaughn and Edward C. Moore, Idle Land in an Urbanizing Area: The Delaware Experience, Agr. Exp. Station Bulletin 349 (University of Delaware, July, 1963), p. 2.

<sup>2</sup>This subject is covered very thoroughly in: Herbert H. Smith, The Citizen's Guide to Zoning (Trenton, N.J.: Chandler Davis Publishing, 1965).

The process described involved the community analyzing itself, studying alternative courses of action and setting goals for the future.

The remaining chapters in this study will examine the role of the Cooperative Extension Service in programs designed to assist communities with their land use problems.

## CHAPTER III

### A LITERATURE REVIEW OF THE CONTENT AND CONSTRUCTION OF A NUMBER OF LAND USE PROGRAMS

The purpose of this chapter is to outline, from the literature, the basic content and construction of land use programs which have been, or are now active in a number of states. The literature reviewed has been arranged into nine descriptive case studies by the researcher. It is hoped that these case studies will provide supplementation and support for the analysis of the results of the questionnaire describing land use programs in the United States. In a later chapter they will be summarized and compared with the responses to the questionnaire.

#### Past Land Use Programs<sup>1</sup>

Public efforts to influence the use of land are not a new phenomenon in America. Since the early days of settlement, there have been many spasmodic efforts to direct land

---

<sup>1</sup>This discussion of the history and program construction of land use programs in the U.S. is a composite of descriptions the researcher has read in reviewing the literature on land use planning. The facts and ideas presented are based upon the following sources: Raleigh Barlowe, Land Resource Economics, Op. Cit., pp. 476-478; K. F. Bartlett, Land Use Planning, Its Beginning, Term Paper RD 801, Department of Resource Development, Michigan State University, No date; Herbert A. Berg, Land Use Planning As An Extension Activity, A talk given to the Canadian Society of Technical Agriculturists, (Toronto, July, 1944); Donald J. Luebbe, Land Use Planning Under the Mount Weather Agreement and Its Implications for Area Resource Development, term paper, RD 815, Department of Resource Development, Michigan State University, 1962.

use. The need to direct land use in a coordinated manner became an important issue following World War I. Throughout the 1920's many professional and lay people with an interest in the subject, agitated for a coordinated approach to the direction of land use. However, for many political and social reasons an organized program did not evolve until the 1930's.

The Roosevelt administration of the early 1930's produced many pieces of agricultural legislation. The Agriculture Adjustment Act (AAA) was one of these new pieces of legislation. In addition to a number of other features, the structure of AAA allowed for two-way communication between the "grass roots" and Washington. It also provided for a program designed to plan for the future in rural areas. An AAA committee was set up in each agricultural county in the nation and given the task of developing an overall agricultural program suited to the local area. These committees consisted of from ten to twenty members representing the agricultural interests of the county. In cooperation with the AAA planning division the county committee worked on a program of mapping the land use situation in their county. These maps were then used as a base for recommendations on conservation measures and better farming practices. The AAA was declared unconstitutional and passed out of existence in the mid thirties.

In 1937 the Land Grant Colleges and the U.S. Department of Agriculture set up study committees to plan for and develop means of localizing and coordinating the many programs of the Roosevelt administration. The result of the work of

these study committees was the Mount Weather Agreement of 1938. The major points in this agreement have been summarized by the researcher as follows:

1. The development of a systematic analysis of major agricultural problems with specific reference to land use.
2. Cooperative development of ways to meet these problems.
3. Development of a factual basis for use by all agencies in redirecting their efforts.
4. Initiation and/or acceleration of means of bringing about change.
5. An educational effort for all; farmers, technicians and administrators.

Land use planning under this agreement was administered federally by the Bureau of Agricultural Economics and in each state by the Land Grant College through its Extension Service. Each state designated a state leader of land use planning and assigned him the job of providing leadership and guidance to the counties. The county Extension Agents organized county and later township committees to inventory agriculture resources and identify land use problems. The county committees were expected to develop land use maps and development plans. The maps and plans were then sent to the state office where they were coordinated and where they could be used in developing state plans.

The land use planning program continued into the early 1940's when, for a number of political and financial

reasons it was discontinued as a nation wide effort. The state of Michigan, however, continued the program until approximately 1950.

As an aid in further understanding this first real attempt at land use planning, the program, as it operated in Michigan will be described.

In Michigan the program functioned on the state, county and township levels. At the state level, a Land Use Planning Committee was set up to coordinate the program and analyze the results. The membership of this committee included farmers, (one from each type farming area), the Dean of Agriculture, the Directors of Extension and the Agriculture Experiment Station, and a representative from each state and federal agency having a program in the rural areas of Michigan.

The county committees usually consisted of from forty to sixty people, the majority of whom were farmers. Other members included representatives from township supervisors, the U.S.D.A., chamber of commerce, women's organizations, etc. The committees were selected by the Extension Agent with the assistance of the County Extension Advisory Council, local farm organizations and township supervisors.

The county committees were expected to:

- (1) Conduct an inventory of county resources, resulting in classifying all land into five categories based on their suitability for farming.
- (2) Identify major land use problems retarding agriculture.

In counties where an assistant agent was posted to work on land use, an extensive program was carried on at the township or local community level. These local committees were organized on a basis similar to the county committees and forwarded their work to the county committee for final approval and coordination into the total county effort. When the analyses were completed on a township and county basis they were presented to the state committee so that the committee could consider the needs of all areas in making state plans. Recommendations approved by the state committee were then submitted to the appropriate agency for action. The accomplishments of land use planning in Michigan:

1. Preparation of county maps, showing areas suitable to various kinds of future development.
2. Recommendations of county committees led to establishment of zoning boards and planning commissions.
3. The county maps were used to guide conservation practices, credit recommendations, rural electrification and many decisions of major importance to the people affected.
4. Local leadership was developed.

In 1950 Suggitt collected the evaluative opinions of county agents who had been involved in the program. The following excerpts from his report emphasize some lessons for future programming.

Six of the agents specifically mentioned the importance of agencies and farmers participating together in county planning for the purpose of achieving better

Y  
t  
r  
e  
U  
H  
S  
L  
O  
T

Y  
B  
R  
E  
A  
K  
I  
N  
G  
T  
H  
P  
R  
O  
P  
E  
R  
T  
Y  
C  
O  
M  
P  
O  
S  
I  
T  
I  
O  
N  
S  
F  
O  
R  
C  
O  
N  
C  
R  
E  
T  
E  
S  
T  
R  
U  
C  
T  
U  
R  
E  
S



adaptation and application of all the agricultural programs. One former agent pointed to the need for some sort of a state level organization of this sort.

The major criticism of the program is that it has lacked continuity and follow-up in the intensive counties.

Several agents implied that land use planning, as an Extension function, must be defined as to objectives, limitations, scope, function and relationship to other programs.<sup>1</sup>

### Rural Resource Development and Land Use In New York<sup>2</sup>

Beginning with the pilot programs of the 1950's, New York has conducted education for individuals and families in the improvement and use of land released from agriculture for residential, recreational, and forestry purposes. This program was originally requested by local leaders who wanted an educational effort to help guide large areas into these three uses. One Extension agent was assigned to assist the pilot project.

In 1963, a Rural Resource Development program was started in thirty counties. One-half of the counties established committees of local citizens to guide the local program.

---

<sup>1</sup>Frank W. Suggitt, I Would Like To Say, a compilation of statements of County Agricultural Agents regarding the Land Use Planning Program, Michigan State College, 1950.

<sup>2</sup>This description of the program in the State of New York has been summarized for use here by the researcher, it is based upon papers by: Harlan B. Brumsted, "Training For Resource Development in New York", Proceedings of the First National Extension Workshop in Community Resource Development (East Lansing: Michigan State University, July, 1965), pp. 165-176; "The New York Public Affairs Program Issues Involving Land", Proceedings of the First Northeast Extension Seminar In Public Issues Involving Land (Morgantown: West Virginia University, Cooperative Extension Service, 1965), pp. 11-14.

In one three county area a regional program staffed with an Extension agent was set up. In this regional area the program was developed and guided by a thirty-five member citizen committee, (citizen leaders, local government officials, agency representatives from three counties). A second regional program covering a five county area was set up in 1965. In this case each of the counties has or is in the process of forming a resource development committee. The regional Extension agent appointed to work with this regional program assisted in the formation and strengthening of these local committees. A small regional advisory board was then formed by drawing members from the local committees. Regional programs will be formed from the concerns put forth by the local committees.

The objectives of the New York program are:

"To help citizen leaders study the forces of change, and their impact, by utilizing information and professional assistance already available to them from the community."

"Following study and analysis to encourage these leaders to establish broad goals for the future course of their communities."

"To communicate their findings, recommendations and goals widely through the community, designing special educational programs for the purpose."

"To direct findings and recommendations to action-oriented groups and agencies, including Extension, so that their programs may be shaped more closely to expressed needs."<sup>1</sup>

To assist in regional and county organization, in the studies they undertook, and in the design of educational

---

<sup>1</sup>Brumsted, Training For Resource Development in New York, Op. Cit., p. 166.



programs, a "College Resource Development Committee" was created. This committee has representation from the State Leader Office in each of Extension's three divisions and six subject matter departments; agricultural economics, rural sociology, conservation, agriculture engineering, agronomy, extension teaching and information.

### The Vermont Public Affairs Program Issues Involving Land<sup>1</sup>

Vermont made a rather thorough study of resource development programs in other areas before starting one in their state. The following is a description of some of the features they found in other programs and how they incorporated them into the Vermont Extension program.

From all of these programs in the New England States, New York, Ontario and elsewhere we learned a few lessons of both kinds--things which should never be done again, as well as things which are worthy of emulation. Among the many lessons learned, four deserve special mention: (1) the need for coordination; (2) the necessity of a team approach; (3) the need to clarify concepts, principles and objectives; and (4) the necessity for an agency like Extension to retool before attempting to work in a new area such as regional resource planning and development.

Lesson number 1--the need for coordination is evident in six major areas.

- (a) Within the Extension Service. (Between specialists)
- (b) Between the Extension Service and the Experiment Station.

---

<sup>1</sup>This description is based upon; Frederic O. Sargent, "The Vermont Public Affairs Program Issues Involving Land", Proceedings of the First Northeast Extension Seminar in Public Issues Involving Land (Morgantown, West Virginia University, Cooperative Extension Service, 1965), pp. 15-23.

- (c) Between administrators and those below them in the structure.
- (d) Between states.
- (e) Between state and federal agencies.
- (f) Interdisciplinary cooperation is indispensable when working in land use issues.

Lesson number 2--a team approach. In studying issues related to land the first step is obtaining the facts about the land in question. Such information can be best assembled by a team. The team in Vermont includes; soil scientists, agriculturists, wildlife biologists, foresters, hydrologists, geologists, recreation specialists, sociologists and others. Vermont also has a research team defining regions of the state for planning purposes; a geographer, political scientist and an agricultural economist comprise this team.

Lesson number 3--clarify concepts and objectives. This means to clearly define the objectives of the program before starting and to put an end to "verbalese" and "alphabet soup".

Lesson number 4--Extension needs to retool and re-evaluate. The emphasis is shifting from working with private individuals to working with the public. Public goals differ from private goals, they are more complex, they result from a public and democratic goals development process. Public interest often conflicts with private interest, the Extension resource development specialist must be able to clearly identify the public interest before he can promote it. The Extension worker will require retraining in the principles required to work in this new field.

Vermont has applied these four lessons in building its present resource development program. It has not succeeded in achieving all the objectives set out in these lessons, but has attempted to work toward their achievement.

### West Virginia Public Affairs Program Issues Involving Land<sup>1</sup>

In West Virginia the University's approach to public issues involving land can be summarized as follows:

1. Public issues are identified.
2. Research and data gathering to provide information for an educational program.
3. An educational program. Basically an endeavour to identify alternate courses of action the public may choose.

In land use issues, Extension recognized the problems, it then developed a team from Extension, rural sociology and the information division of the University. They then attempted to meet the challenge by cooperating with other organizations and agencies in the state, including the Community Planning Association, State Department of Commerce, etc. Mass media and county agents were then used to disperse the information through the state.

---

<sup>1</sup>This program has been described by; Bruce M. John and Foster G. Mullenax, "The West Virginia Public Affairs Program Issues Involving Land", Proceedings of the First Northeast Extension Seminar in Public Issues Involving Land (Morgantown: West Virginia University, Cooperative Extension Service, 1965), pp. 24-30.

Oregon's Land Use and Related Resource Development Program<sup>1</sup>

In Oregon the Total Resource Development (TRD) program is based on plans set at planning conferences held every ten years. These conferences take place over a one year period and involve many committees in the task of formulating state plans. Prior to 1955, urban interests were not included; since that time they have been. The written reports resulting from these conferences represent the feelings of the people and are the foundation for future programs.

Oregon has capitalized on favorable attitudes to TRD and has made funds available to set up a Department of Resource Planning and Development, this agency has funds to make regional studies. Two regional studies have been completed to date. The first was completed by a consultant, it did not involve the people of the region. The second study involved chambers of commerce, various citizen groups, consultants and the University. The goals of this study were an inventory of the total resources of the region and development of a regional plan which included, land use planning, water use, human resources, industry, circulation patterns, and guides for future physical development. This plan has been used by Extension and other development groups as a base for program planning.

---

<sup>1</sup>This description is based upon a talk given by Ted Sidor, Extension Resource Development Specialist, Oregon State University, at a land use seminar sponsored by the Michigan Cooperative Extension Service, Michigan State University, June, 1966. The researcher was in attendance and the notes taken at that time are used extensively in this case study.

Oregon is now considering much more sophisticated studies. These studies will involve working with the people, consultants and various agencies with the singular goal of developing projects. "Lack of public participation in planning results in plans that gather dust." This program will utilize economists and other specialists plus local leaders in a total planning effort.

The Oregon Cooperative Extension Service has initiated committees to work in coordinating beautification efforts. A Rural Areas Development (RAD) Committee made up of lay people has been developed in most counties and a State RAD committee has also been established; its objectives are:

1. Promoting, stimulating and planning for use of human and natural resources.
2. Coordinating the use of various programs.
3. Encouraging land use planning.

Agricultural economists are now making a study of urban sprawl and outdoor recreation, they are attempting to determine; (a) how much land should be shifted to outdoor recreation, (b) how much forest land should be shifted to outdoor recreation and (c) the agricultural land requirements for outdoor recreation.

Planning in Oregon is on a regional basis. The regions are established by counting the number of small towns and cities and dividing them into regions, (each region being made up of approximately the same number). In establishment of regions, consideration was also given to having each



region represent similar problems. Inter and intra-region cooperation is also being promoted.

The CES in Oregon has played an educational role in regional and land use planning. Extension has worked with consultants and involved area people in the planning process, plans developed with this team approach have gained much wider acceptance than plans developed by consultants working alone.

Extension has also developed an educational program for the county boards of supervisors. The objective of this program was creating awareness in local government that Extension was willing to help them get information on the social and economic needs of the area.

#### Land Use Planning and Total Resource Development In Wisconsin<sup>1</sup>

Total Resource Development (TRD) in Wisconsin is a program in which the Extension Service and the U.S.D.A. agencies work together in a coordinated effort. It is an interdisciplinary program involving lawyers, engineers, sociologists, economists and others from all sectors of the University and from state agencies.

---

<sup>1</sup>This discussion is based upon descriptions of the Wisconsin program by: W. A. Rowlands, A Citizens Development Plan For Every County, Op. Cit.; and Gale L. VandeBerg, Total Resource Development in Wisconsin (Madison: University of Wisconsin, Extension Service, 1963); and notes taken by the researcher during a talk by Orlando Delogue, College of Law, University of Wisconsin, during a land use seminar, sponsored by the Michigan Cooperative Extension Service, Michigan State University, June, 1966.

The counties are the building blocks for the program. The county agents coordinate and organize TRD at the county level, they work closely with the County Board of Supervisors and local citizens. The procedure followed in Wisconsin is outlined as follows:

1. The Extension agents role and responsibilities are defined.
2. Support is gained from the County Board of Supervisors.
3. Agency roles are clarified; county Extension staff, technical action panel (TAP), supervisory staffs and related agencies meet to coordinate efforts and make program suggestions.
4. Sources of data and data needs are established.
5. Data are gathered and steps are taken to organize citizen leaders.
6. Agency representatives meet to review data and assign roles as resource persons to the various citizen committees and subcommittees.
7. An official county resource development council is appointed, usually by the Chairman of the County Board of Supervisors.
8. The county resource development council, citizens organization subcommittee and agency representatives meet to clarify projects and objectives.
9. Subcommittees on various subjects meet and continue to meet until recommendations are formulated. (Examples of subcommittees, land use planning and zoning, industrial development, etc.)

10. Subcommittees meet with Extension agent and resource people to review and consolidate work.
11. County resource development council meets to put plans in final form.
12. County development plan is completed.
13. Action is encouraged on the plan.
14. Meetings are conducted to create public awareness.
15. Extension staff and TAP personnel summarize recommendations and submit them to the agencies concerned.
16. Programs are evaluated.
17. Extension agent meets with county council to review progress.

Wisconsin has also set up a Department of Resource Development. It has been given responsibility for looking at programs and problems, setting up alternatives and coordinating the activities of resource agencies. This department has set up a five phase study of the state, covering; population, economics, public facilities, land use and transportation.

Planning in Wisconsin has been on a regional basis and under the coordination of regional planning agencies. The regional agencies organize citizen committees, these committees are appointed by county and state government. The membership consists of citizens selected because of recognized leadership in their community.

The regional organizations look at their area and attempt to analyze it in preparation for developing a regional plan. These plans are usually implemented in three ways:

1. Local government completely embraces the program.  
(This has not been a common occurrence.)
2. State government uses planning proposals as a basis for decision making.
3. Federal agencies use the plans as a qualifier in granting funds.

In Wisconsin the Extension Service has become an all University activity. Extension has a responsibility to translate University ideas to the people of the state and to those within state government and the power structure. It must make its recommendations based upon facts backed by research. One of the most concrete things Extension has done is to provide guides that describe, for example, what zoning is, what is good zoning, why zoning, what does a good zoning ordinance look like, in essence, educational materials.

#### New Areas Of Land Grant Extension Education<sup>1</sup>

This descriptive study by the Center for Agricultural and Economic Adjustment describes how the Cooperative Extension Service and the University of Arkansas, Cornell University, Iowa State University, and Pennsylvania State University undertook to educate the public on important public problems.

In each of the four states a University team decided which broad public problem could best be looked at on a state-wide basis. The general objectives were: to select local

---

<sup>1</sup>This study has been summarized here by the researcher from; Center for Agricultural and Economic Adjustment, New Areas of Land Grant Extension Education, CAEA Report 10 (Ames: Iowa State University, 1962).

problems that citizens deemed significant and timely; to analyze in laymen's terms and in some depth, the interrelation of social, economic and political factors of the problems selected; and to emphasize the need for private or public action in dealing with the problems.

Each University prepared four to six "fact sheets" on the problems identified in their state, the fact sheets pointed out alternatives, but they did not attempt to provide answers.

In Arkansas and Iowa an effort was made to disseminate information on the widest possible basis. In New York and Pennsylvania the audience was restricted to specific regions and areas. This difference was due to the different audiences Extension wanted to reach in each of the four states. In all cases, the key educational method was a discussion group of from six to twelve persons. This was self administered discussion, in which interested individuals called together friends and formed a group to discuss material presented in the fact sheets. At the end of the discussion series the participants completed an opinion record and forwarded it to the State Extension Office.

The effort required statewide planning. The Extension Service in each state produced fact sheets, organization guides, promotion brochures, and other educational materials. There was a coordinated statewide promotion campaign on radio and television and descriptive news releases in the press. The County Extension Office was the base of operations

and the county agent the coordinator of the county program. He was responsible for finding persons willing to establish a group, training them in discussion techniques and providing needed discussion materials.

The support at state level went beyond supplying materials. There was a concerted effort to set up a state-wide climate of opinion that would encourage county leaders and organizational officials to act.

The programs worked because:

1. The problems chosen for discussion were real and important.
2. The educational materials were first rate; prepared by a team of experts in their respective fields, readable and capable of promoting discussion.
3. This was a total Extension effort, state and county levels functioned as a coordinated unit. County offices received strong state support, and the whole effort was supported by non-extension scholars and off campus agencies.
4. There was a large public response.

#### The New Jersey Farm Land Assessment Program<sup>1</sup>

In New Jersey agricultural lands surrounded by urban

---

<sup>1</sup>The material in this discussion was consolidated by the researcher from; John M. Hunter, "The New Jersey Public Affairs Program Issues Involving Land", Proceedings of the First Northeast Extension Seminar in Public Issues Involving Land (Morgantown: West Virginia University, Cooperative Extension Service, 1965), pp. 31-34; and from notes taken by the researcher during a talk by Hunter at a seminar on land use, sponsored by the Michigan Cooperative Extension Service, Michigan State University, June, 1966.

development were being assessed according to their value as urban land, ripe for subdividing. Thus, farms were often assessed at a rate which made it unprofitable to continue farming.

To prevent the movement of land from agriculture, the University in cooperation with farmers, farm organizations and with the assistance of agri-business, launched a program designed to amend the state constitution to allow preferential assessment of agriculture land.

The "education" program coincident with the program consisted of the use of mass media and a "legitimizing" committee made up of highly influential people in the state.

#### Land Use Planning Legislation In California<sup>1</sup>

In California the University and farm groups worked together to achieve controls over urban sprawl in good agricultural areas. They worked with legislators and other groups, in an effort to achieve legislation which allows farmland to be kept in agriculture on a contract basis. In the process of influencing passage of the legislation, Extension and farm groups enlisted the help of interest groups, especially urban interest groups (open space, garden clubs, etc.) in achieving their goals.

---

<sup>1</sup>Based on notes taken by the researcher from a talk given by H. Snyder, University of California, (Davis), at the seminar on land use, sponsored by the Michigan Cooperative Extension Service, Michigan State University, June, 1966.

The case studies reported in this chapter will not be summarized or analyzed here. In Chapter V they will be summarized and compared with the responses of State Rural Areas Development Leaders to the questionnaire on land use programs in the United States. It is felt that this procedure will contribute to maintenance of objectivity in the analyses of the questionnaire data (Chapter IV) and provide an opportunity to present a composite set of findings which can be related to the study objectives (Chapter I).



## CHAPTER IV

### QUESTIONNAIRE DEVELOPMENT AND ANALYSIS

The material presented in this chapter is the descriptive data concerning the questionnaire used, the number of respondents, the geographical location of the respondents and their answers to the questions in the questionnaire. The material is presented in the following sequence: (1) information to be gathered, (2) the questionnaire used in data collection, (3) the respondents, and (4) analysis of data collected by the questionnaire on Extension Land Use Programs in the United States.

#### Information To Be Gathered

The discussion in Chapters I and II indicated that the problems of land use change are many and complex. It was pointed out that these changes can be either left to the vagaries of the land market and the developer, or they may be directed through citizen planning to fulfill the goals of the community. Citizen planning was described as an area requiring the technical and educational skills and the guidance of professional resource persons. It was suggested that the Cooperative Extension Service (CES), has a legitimate and practical role to play in assisting communities through the provision of professional guidance to citizens participating

in the community resource development process. The questionnaire was designed to determine the role the CES has played in the alleviation of land use problems.

It was assumed that those in the CES responsible for program development could logically answer questions related to Extension's role in the field of land use programming. To this end, the individuals in each state, responsible for policy making in those fields which include land use (resource or community resource development), were asked to respond to the questionnaire asking of their state's land use program.

The questionnaire was sent to the Cooperative Extension Service and specifically to the State Rural Areas Development Leaders because: (1) the study was specifically aimed at obtaining views of an Extension program from administrators at the program development level; (2) it was assumed that there would be greater homogeneity in the respondents familiarity with and interpretation of terms used in the questionnaire; and (3) no other inquiry was made because of the numerous differences in the organizational structure and responsibilities of the various state and local governmental units and other units of the United States Department of Agriculture.

#### The Questionnaire

The questionnaire was divided into three parts: I. An overview of the land use program in each state; II. Specific questions on (a) land use study, (b) land use education, and (c) land use planning; III. Evaluation of the methodology used in Extension land use programs.

The questionnaire was formulated with the assistance of Extension administrators, specialist and development agents in the Michigan Cooperative Extension Service. It was specifically constructed to gather data which would be helpful to Extension Administrators formulating a land use program in Michigan.

The following is a summary of the information the questionnaire was designed to gather.<sup>1</sup>

- (1) The scope of Extension land use programs.
  - (a) The number of states with an Extension land use program.
  - (b) The number of years land use programs have been part of Extension's program (since 1955) in each state.
- (2) Program construction.
  - (a) Factors which influenced Extension to begin a land use program.
  - (b) The general goals of Extension's land use programs.
  - (c) The presence or absence of a coordinating body to direct all agencies involved in the program.
  - (d) The types of resource agencies which have cooperated with Extension in a land use program.
  - (e) The means used to implement the program.
    - (i) The phases used and the order of use (study, education, planning).

---

<sup>1</sup>A sample questionnaire is enclosed in Appendix A.

- (ii) The areal level at which the program was directed. (Local, regional, statewide)
  - (iii) The groups or individuals, which were the target audience in each phase. (Study, education, planning)
  - (iv) The educational tools used.
- (3) The product of Extension land use programs.
- (a) An evaluation of the results of study, education, and planning.
  - (b) Specific land use measures implemented.
  - (c) Subjective evaluation remarks of the respondents.

The questionnaire was pretested by ten Extension workers who were participants in the Second National Extension Workshop in Community Resource Development. The pretest consisted of an interview in which each of the Extension workers were asked to respond to the questions which had been formulated.

Following the first pretest the questionnaire was substantially changed to increase its readability and to clarify ambiguity. The questionnaire was then pretested for a second time. This time the respondents were given the questionnaire and were asked to complete it without clarification from the researcher. When the questionnaire was completed the respondent reviewed each question with the researcher. The respondents in the second pretest were eight State Rural Areas Development Leaders, (or of equivalent positions in their State Extension Service), who were attending the above mentioned

Workshop. As a result of the second pretest very minor adjustments were made to the questionnaire.

### Procedure For Gathering Information<sup>1</sup>

The questionnaire was mailed to all states on July 26, 1966. A letter explaining the purpose of the study, a stamped, self-addressed envelope for returning the completed questionnaire, and a cover letter from the researcher's advisor, who is also the State Rural Areas Development Leader, was sent to each potential respondent.

A follow-up postcard was sent to eleven potential respondents on August 17, 1966. All responses were received by October 15, 1966.

### The Respondents

Responses were received from all of the fifty potential Cooperative Extension Service (CES) worker respondents. Forty-five questionnaires were received by August 31, 1966 and these were used as a basis for analysis on the CDC 3600 computer.<sup>2</sup> Three responses were received on September 6, one on September 22, and one on October 15. Since computer analysis had been completed, these were included in the total count of states with land use programs, but not in the total analyses.<sup>3</sup>

---

<sup>1</sup>Copies of the questionnaire and the correspondence are in Appendix A.

<sup>2</sup>The Michigan State University Computer Laboratory Uses the CDC 3600 computer, manufactured by Control Data Corporation, Minneapolis, Minnesota.

<sup>3</sup>Late responses were received from Maine, Michigan, Minnesota, Montana, and Oklahoma.

All questions on the questionnaire were not answered by all respondents. There are two reasons for this: (1) states not having an Extension land use program were asked to answer the first question only;<sup>1</sup> (2) a number of questions, (specifically numbers 1, 5, 8a, 9a, 10a) had qualifying statements attached indicating a "No" answer denoted that the question was not to be answered.<sup>2</sup> On these bases it was assumed that an unanswered question or part thereof indicated that the particular state did not include as a major part of its Extension land use program, the subject covered in that particular question or part thereof. This will account for the variation in total responses from question to question. All tables are subject to this condition.

#### Analysis Of Questionnaire Response

The material presented in this section is the descriptive data collected by the questionnaire on Extension land use programs in the United States.<sup>3</sup> This material will be presented in the order which it followed in the questionnaire.

The various parts of this section present data as they were gathered by each of the three parts of the questionnaire. A brief discussion of the important data in the tables is conducted, and terms are defined as required.

---

<sup>1</sup>See Appendix A.

<sup>2</sup>See Appendix A.

<sup>3</sup>See Appendix A.

The data in the tables are presented as combined by the researcher after an initial computer analysis. All data from computer analysis were not used, because the small population numbers responding and the many possible combinations of variables resulted in many meaningless and non-significant combinations.<sup>1</sup>

**Part I--An Overview of Extension's Land Use Program In Each State**

**Question 1:** Has the Cooperative or Agricultural Extension Service in your State been involved in a Land Use Program at any time since June, 1955?

Sixty percent of the fifty state leaders responding indicated they were involved in an Extension land use program. The data are presented in Table 2.

**Table 2. The Number of States Having a Land Use Program During All or Part of the Period June, 1955 to July, 1966**

---

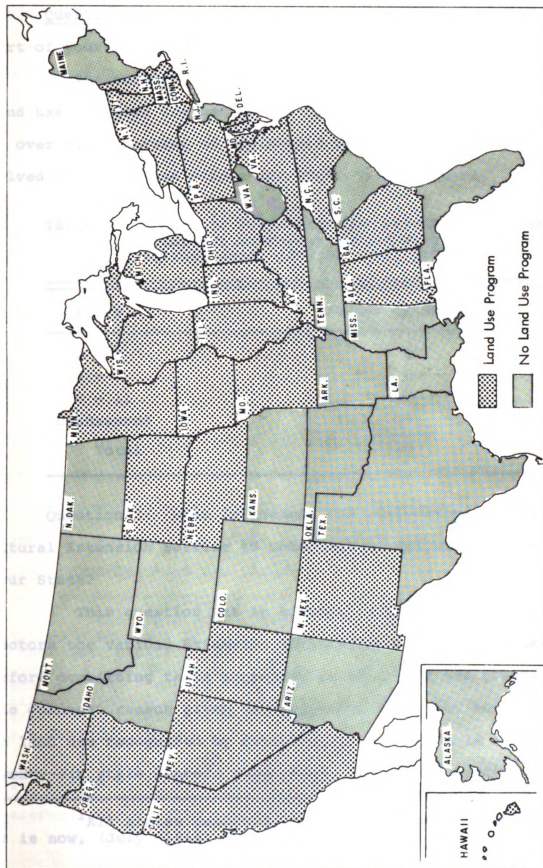
States Indicating a Program	30
States Indicating no Program	20
Total States	50

---

Illustration 1 is a graphic presentation of the data contained in Table 2, it illustrates the location of the states and their answers to Question 1.

---

<sup>1</sup>In one question for example--nineteen possible combinations emerged from a total population of twenty-eight respondents.



Illus. 1. Questionnaire Response Indicating Scope Of Extension Land Use Programs



**Question 2:** During what years was a Land Use Program a part of your Extension Service's effort, (since June, 1955)?

The answers to this question indicated that Extension land use programs are not new in Extension programming, (Table 3) over fifty percent of the states responding have been involved in a land use effort for eight or more years.<sup>1</sup>

**Table 3. Number of Years Land Use Programs Have Been a Part of Extension Programming During the Period, June, 1955 to July, 1966.**

Years	Number of States
0 - 3	3
4 - 7	8
8 - 11	16
Unanswered	3
Total	30

**Question 3:** What influenced the Cooperative or Agricultural Extension Service to undertake a land use program in your State?

This question was an attempt to broadly determine the factors the various Extension administrators have considered before committing their organization to a land use program. The dominant reason given for beginning a program was conflicts in land use recognized by Extension leaders, (Table 4); of the twenty-six state leaders responding, only three started a

---

<sup>1</sup>All states reporting a land use program stated that it is now, (July, 1966) a part of their program.

Table 4. A Summary of the Reasons Given by Extension Leaders for Beginning an Extension Land Use Program, July, 1966<sup>1,2</sup>

	Number of States
1. Conflicts in land use recognized by Extension leaders	5
2. Requests from elected bodies <u>and</u> request from local citizen study groups	3
3. Conflicts in land use recognized by Extension <u>and</u> requests from local citizen study groups	7
4. A combination of 1 <u>and</u> 2	11
5. Other reasons	<u>2</u>
Total	28

program in which this reason was not given. It is evident however, that most states do not start a land use program for any single reason. Two states gave reasons other than those listed, in one case the state legislature had passed legislation requiring land use planning, and in the other land use

<sup>1</sup>This represents a summary of the major reasons for starting a land use program. Two other reasons were offered in the questionnaire, (see Appendix A, p.141). These reasons; "A survey of professional workers in adult education, natural resources, etc." and "a survey of community opinion" were not included in the analysis because of the low frequency of response. Two states indicated these as part of their reasons for starting a program.

<sup>2</sup>In this and succeeding tables, data from twenty-eight states will be analyzed. Two states, Minnesota and Michigan are currently developing new land use programs and therefore, their responses are not included in the analyses.

programs were said to be a continuing part of the Rural Areas Development Program.

Question 4: Which of the following best describes the goals of Extension's Land Use Program in your State?<sup>1</sup>

This question was designed to determine the goals of Cooperative Extension Service (CES) land use programs. As expected, education was given as the most consistent goal of the program. Although eight different goals or combinations of goals were given by twenty-eight states, (Table 5) twenty-

Table 5. Goals of Land Use Programs As Reported by Extension Leaders, July, 1966<sup>2</sup>

Goals	Number of States
1. A basis for establishing zoning regulations only	0
2. Citizen education and community development only	7
3. Education of local elected or appointed officials only	0
4. A basis for community planning only	1
5. A combination of 1 and 2	1
6. A combination of 2 and 3	1
7. A combination of 2 and 4	3
8. A combination of 1 and 2 and 4	4
9. A combination of 2 and 3 and 4	6
10. A combination of 1 and 2 and 3 and 4	5

<sup>1</sup>See Appendix A for details.

<sup>2</sup>One part of this question, "A means of obtaining assistance from various state and federal programs", was not included in the analyses because of the low frequency of response.

seve

In n

of t

appo

a "b

the

iste

use

comm

an

is

and

a

us

se

in

an

th

12

Lax

seven states included a form of education in their response. In nineteen states, "a basis for community planning" is a part of the goals. In twelve states "education of elected or appointed officials" is part of the goals, and in ten states a "basis for establishing zoning regulations" was included in the goals.

Question 5 (a): Was or is there a statewide guidance (steering) committee with responsibility for directing the Land Use Program in your State? (b) What was or is the guidance committee's membership?

In formulating this question it was assumed that an Extension committee responsible for coordination of programs is an integral part of a statewide Extension effort.

Seven of the twenty-eight state leaders responding to this question indicated that a guidance committee was a part of their land use program. The guidance committee was usually composed of membership from the Cooperative Extension Service, state government agencies, and farm organizations. In some states, members of the technical action panel (TAP) and planning commission representatives were also included in the membership.

Question 6: Which of the following agencies, organizations, and individuals made major contributions to Extension's Land Use Program in your State?<sup>1</sup>

---

<sup>1</sup>See Appendix A.

This question was formulated on the assumption that an Extension Land Use Program will require considerable technical and professional participation by a number of agencies, organizations and individuals. The objective of the question was to determine which of these participated and the most frequent area level of participation.<sup>1</sup> In Table 6, a summary of the responses to this question is given. This summary indicates that at the local level a broad spectrum of sources of

Table 6. Summary of Agencies, Groups, Organizations and Individuals Providing Assistance In Extension Land Use Programs at Local, Regional and State Areal Levels, July, 1966

Source of Assistance	Number of States and Area of Involvement		
	Local	Regional	State
Land Grant University Staff	10	11	15
Employees of State Government	12	9	20
Consultant firms	12	5	4
Federal assistant programs	14	9	9
Elected groups, local level	18	11	5
Technical Action Panel, USDA agencies	13	8	12
Citizens other than those mentioned above	15	8	5
Other means of assistance	6	5	4

<sup>1</sup>The levels, local, regional and state were interpreted as follows: Local, included political divisions up to a county in size; Regional, includes two or more contiguous counties or parts thereof; State, includes the activities at the statewide level.

technical, professional and lay support are employed. This is also true, but to a lesser degree, at the regional level. At the state level, the staff of the Land Grant University and employees of the state and federal government play major roles. Other groups not listed in the questionnaire, but involved at all areal levels, included: agencies involved in conservation and water resource development; the Army Corps of Engineers, farm organizations, private enterprise, etc.

Question 7 (a): Has Extension's Land Use Program in your State included the following phases? Study \_\_\_\_ Education \_\_\_\_ Planning \_\_\_\_.(b) If more than one phase was included, in what order were they undertaken?

In formulating this question it was assumed that land use programs included three distinct, but interrelated phases. The objective of these two questions was to determine if these phases were included and their order of inclusion in Extension

Table 7. Rank Order of Inclusion of Phases, Study - Education - Planning in Land Use Programs As Reported by Twenty-eight Extension Leaders, July, 1966.

Order of Inclusion	Number of States
Study - education - planning	16
Education - study - planning	4
Study - education	4
Study - planning - education	2
Education	1
Planning	1

land use programs. The response to Questions 7 (a) and (b) is summarized in Table 7.

The results indicate that fifty-seven percent or sixteen of the states having a land use program follow the phases study, education and planning. Many of the respondents indicated they thought that study and education were reversible or could take place at the same time, that is, study and education are an integral part of one another.

Part II--Specific Questions on (1) Land Use Study, (2) Land Use Education, (3) Land Use Planning.

Land Use Study--is defined as: assembly of state and/or regional information by a state technical committee, followed by area or regional expansion of data by local committees. Study here includes a survey or inventory of physical features, both natural and man-made, of land (space) and its uses.

Question 8 (a): Has the Extension Service in your State undertaken land use study, (since June, 1955)? (b) On what area basis has land use study in your State been undertaken?

Nineteen of the twenty-eight Extension leaders responding to the questionnaire indicated that the land use program in their state included land use study.

In the nineteen states reporting, land use study is a part of Extension programs at the local level in eighteen states; the regional level in sixteen states; and is a state-wide effort in seven states.



Question 8 (c): Which of the following best describes the persons or groups most involved with Extension's Land Use Program in your State?<sup>1</sup>

This question was designed to obtain an indication of the persons or groups who have been involved in land use study and the areal level at which they were involved. The data compiled from the response to this question are presented in two tables. The areal levels at which each group was most frequently involved are described in Table 8. It indicates the number of states utilizing each type group, and shows that citizen and non-professional groups are a part of programs at the local and regional level. In over half of the states reporting they are a major part of the program.

Table 8. Groups or Agencies Participating in Land Use Study and the Area Level of Their Involvement in Nineteen States, July, 1966

Groups Participating In Land Use Study	Number of States and Area of Involvement		
	Local and Region	Region and State	State
Citizen study groups	17	--	--
Elected or appointed planning commissions	13	--	2
Consultant or consulting firm	8	--	2
State technical committee	5	3	4
Government body	--	--	5

<sup>1</sup>For question construction see Appendix A, Question 8 (c).

Table 9 illustrates how the states reporting combined or utilized each of the five groups, (Table 8) in land use study, at the local, regional and state levels.

Table 9. Methodology of Group or Agency Involvement in Land Use Study by Area Level In Nineteen States, July, 1966

Methodology Employed In Land Use Study	Number of States and Area of Involvement		
	Local	Region	State
1. Citizen study groups only	5	1	--
2. Elected or appointed planning commissions only	2	1	2
3. Consultant or consulting firm only	--	--	--
4. State technical committee only	1	3	5
5. Government body only	--	--	1
6. Combination of methods 1 and 2 and 3	4	--	--
7. Combination of methods 1 and 2 and 3 and 4	3	--	--
8. Combination of methods 1 and 4	--	3	--
9. Combination of methods 4 and 5	--	--	2
10. Other combinations <sup>1</sup>	3	6	2

<sup>1</sup>This includes miscellaneous combinations not covered in Numbers 1 through 9. All combinations in this grouping are different and have not been reported separately because of their low frequency of use.

Citizen study groups are the most common group used in land use study at the local level, (Table 9). In five states they were the only means of study at the local level, in seven other states they are a part of a combination which includes, elected or appointed planning commissions and consultants. In four states a state technical committee has participated at the local level; in one state it was the only method used, in the other three it was combined with citizen study groups, planning commission and consultants.

At the regional level citizen study groups are active in four states, in one state they are the only means of study and in the other three they work with a state technical committee.

The state technical committee is employed at the state level in seven states; in five it is the only statewide study organization and in the other two it works with a government body.

A number of single combinations are used at all three levels. These are summarized in Table 9, method number 10. They have not been described because it was felt that the most important combinations are shown in methods number 1 to 9.

Question 8 (d): Has Extension's Land Use Study Program resulted in an inventory of the land use situation at the statewide level \_\_\_\_ regional level \_\_\_\_ local level \_\_\_\_?

The objective of this question was to determine if those states involved in a land use study program had completed

an inventory of the land use situation and the level at which this inventory was completed. The response to this question is summarized in Table 10.

Table 10. States Reporting Completion of a Land Use Inventory As a Result of Land Use Study, July, 1966

	Number of States and Area Level		
	Local	Region	State
States completing an inventory	15	14	4
States not completing an inventory	3	2	3

Land use study was reported as part of Extension programs in nineteen states. Of eighteen states reporting land use study at the local level, fifteen had completed an inventory. Sixteen states were involved in land use study at the regional level and fourteen of these completed inventories. Statewide study was employed in seven states, an inventory resulted in four and was not completed in the other three.

Land Use Education--is defined as: creating awareness and understanding of land use problems and alternative solutions among Extension's staff, select groups and/or all the people.

Question 9 (a): Has the Extension Service in your State undertaken land use education, (since June, 1955)? (b) On what area basis has land use education been undertaken in your State?

Twenty-six of the twenty-eight Extension leaders completing Question 9 (a) signified that land use education was a part of their state's land use program.

In answer to Question 9 (b) the respondents indicated that land use education is a part of Extension programming at the local level in twenty-six states; the regional level in eighteen states; and is a statewide effort in nine states. The response to these two questions denotes the importance of land use education programs in Extension land use programs. This phase of a land use program appears to be very important at the local and regional levels and of lesser importance on a statewide level.

Question 9 (c): Which of the following persons or groups were the target audience for Extension's land use education program?<sup>1</sup>

This question was included in an attempt to determine the groups Extension hoped to reach with a land use education program. The data obtained from this question are summarized in Table 11.

The specific audiences or combinations of audiences which were the target for land use education programs at local, regional and state levels are described in Table 12.

---

<sup>1</sup>See Question 9 (c) in Appendix A.

**Table 11. Target Audiences for Land Use Education Program and the Area Level of Their Involvement in Twenty-six States, July, 1966**

Audience Groups	Number of States and Area Level		
	Local and Region	Region and State	State
Staff members CES	8	6	4
Citizen groups	24	3	--
Elected or appointed planning commissions	17	3	--
All the people	11	2	1

**Table 12. Land Use Education Audiences by Area Level in Twenty-six States, July, 1966**

Audience Groups	Number of States and Area Level		
	Local	Region	State
1. Staff members CES only	--	1	5
2. Citizens groups only	4	2	1
3. Elected or appointed planning commissions only	--	--	--
4. All the people only	--	--	--
5. Combination of methods 1 and 2	--	5	--
6. Combination of methods 1 and 3	3	4	--
7. Combination of methods 1 and 2 and 3	6	--	--
8. Combination of methods 2 and 3 and 4	4	--	--
9. Combination of methods 1 and 2 and 3 and 4	7	--	--
10. Other combinations <sup>1</sup>	2	7	6

<sup>1</sup>This classification includes miscellaneous combinations not included in Numbers 1 through 9. All combinations in this grouping are different and have not been reported separately because of their low frequency of use.

the

two

sta

cti

re

con

ien

pla

loo

aud

ne

all

sta

ch

in

to

we

in

le

we

tax

Twenty-two states indicated that citizen groups were the primary audience at the local level. Within these twenty-two states, citizen groups were the only audience in four states; in the remaining eighteen they were combined with other audiences; the most common combination, (7 states) involved staff members of the CES, citizen groups, planning commissions, and all the people. The second most common audience was the elected or appointed planning commission, although planning commissions by themselves were not an audience at the local level, they were an audience in combination with other audiences in seventeen states. The Extension Service staff members were a part of a local audience in thirteen states and all the people were part of a combination audience in eleven states.

Regionally the most common audience was the staff of the CES. It was the only regional audience in one state and in nine other states, it was included in the regional audience to be reached. At the state level staff members of the CES were the primary audience in five states. The remaining states indicated a number of combinations at both regional and state levels, none of these combinations occurred more than once.

Question 9 (d): Which of the following tools or methods were used to communicate the educational message to Extension's target audience(s)?<sup>1</sup>

This question was an attempt to obtain an indication

---

<sup>1</sup>See Question 9 (d) in Appendix A.



of th

in a

meth

meth

imp

in m

at t

Tabl

E

the

at

made

Tabl

atio

of the types of educational tools the various states have used in a land use education program.

Study discussion groups are the most common educational method used at the local level, (Table 13). The remaining four methods mentioned at the local level are of approximately equal importance. Analysis of Table 13 also shows that the emphasis in most states is upon those methods which are of importance at the local level.

Table 13. Major Educational Methods Used in Extension Land Use Education Programs by Area of Use In Twenty-six States, July, 1966

Educational Tools	Number of States and Area Level		
	Local and Region	Region and State	State
Training for CES staff	10	2	7
Mass media	9	3	7
Workshops for planning commissions	11	1	4
Study discussion groups	19	1	1
Publications	8	5	10

The specific tools or combinations of tools used at the local, regional and state level are described in Table 14.

The diversity of methods used by the various states at all levels is indicated in Table 14. Twenty-five states made use of educational tools at the local level, analysis of Table 14 suggests that sixteen different methods or combinations of methods were used to reach the desired audience at

Table

E

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

th

cu

at

All

bee

**Table 14. Specific Methods Used by Extension in Educational Land Use Programs, by Areas of Use in Twenty-six States, July, 1966**

Educational Methods	Number of States and Area Level of Use		
	Local	Regional	State
1. Training for the CES staff only	--	1	1
2. Mass media only	2	--	--
3. Workshops for planning commissions only	1	2	1
4. Study discussion groups only	--	2	--
5. Publications only	--	--	4
6. Combination of 1 and 4	2	--	--
7. Combination of 3 and 4	2	--	--
8. Combination of 4 and 5	3	--	--
9. Combination of 2 and 3 and 4 and 5	2	--	--
10. Combination of 1 and 2 and 3 and 4 and 5	4	--	--
11. Combination of 1 and 2 and 5	--	2	3
12. Combination of 2 and 3 and 5	--	2	--
13. Combination of 1 and 2	--	--	2
14. Combination of 2 and 5	--	--	2
15. Other combinations <sup>1</sup>	9	12	6

this level. The most common methods employed were study discussion groups and workshops for planning commissions.

<sup>1</sup>This classification includes miscellaneous combinations other than those described in Numbers 1 through 14. All combinations in this grouping are different and have not been reported separately because of their low frequency of use.

metho

iona

diff

ing

plan

(Tab

in f

ing

usua

var

ati

use

stu

are

re

pu

le

gr

che

nat

nes

summ

Regionally, there was even more diversity in the methods used. Twenty-one states indicated they used educational methods at a regional level and they gave seventeen different single methods or combinations of methods. Training for CES staff, study discussion groups, and workshops for planning commissions were the most common methods described, (Table 14).

Nine states used publications on a statewide basis, in four states this was the only method used, in the remaining five states publications were used in combinations, usually with mass media.

At all levels it appears that most states have used varying combinations of educational methods in land use education programs. There does not appear to be any one most used method, although within the combinations mentioned, study discussion groups and workshops for planning commissions are frequently a basic part of the program at the local and regional level. Training for the CES staff, mass media and publications appear to be the most used methods at the state level.

Question 9 (e): Has Extension's land use education program resulted in: very much \_\_; some \_\_; little; no \_\_ change in citizen awareness of land use problems and alternative solutions in your State?

This question was designed to measure the effectiveness of land use education programs. Table 15 contains a summary of the responses to this question.

Table 15. Extension Leaders Evaluation of Extension's Educational Land Use Programs in Twenty-six States, July, 1966

Degree of Change In Citizen Awareness Of Land Use Problems	Number Of States
Very much change	4
Some change	19
Little change	2
No change	1

In the opinion of those completing this question, it appears the land use education program in the states responding has had some effect on increasing awareness of land use problems.

Land Use Planning--is defined as: organized efforts for involvement of local people in developing economic and social blueprints for land use according to the availability of resources and people's needs.

Question 10 (a): Has the Extension Service in your State undertaken land use planning(since June, 1955?) (b) On what basis has land use planning been undertaken in your State?

Twenty-one of the twenty-eight Extension leaders completing Question 10 (a) indicated that land use planning was a part of the Extension land use program in their State.

In answer to Question 10 (b) the Extension leaders reported that land use planning is a part of their organization's program at the local level in nineteen states; the

regional level in fourteen states; and is a statewide effort in five states. These answers suggest that Extension's involvement in land use planning has been at the local and regional levels.

Question 10 (c): Which of the following groups or persons were involved in Extension's land use planning program in your State?<sup>1</sup>

This question was formulated to determine the groups the CES has worked with in land use planning activities. The groups listed for the most part are locally oriented, therefore, it was anticipated the respondents would indicate more involvement at the local than the regional or state levels.

The data attained from analyses of the response to this question are summarized in Table 16.

Table 16. Groups, Agencies, Individuals Involved in Land Use Planning Programs and the Area Level of Their Involvement in Twenty-one States, July, 1966

Groups Involved In Land Use Planning	Number of States and Area Of Involvement		
	Local and Regional	Regional and State	State
Citizen study groups	18	--	--
Consultants, consulting firms	7	1	--
Elected or appointed planning commissions	13	1	2
Cooperative Extension Service	14	1	3
Elected groups, County Board, etc.	14	--	--

<sup>1</sup>See Question 10 (c), Appendix A.



As in the various factors described in earlier questions, citizen study groups, at the local and regional level, are again the most common group involved in Extension land use planning programs. Extension also appears to be heavily involved with planning commission and elected groups, such as the county boards of supervisors. The role each group has played at the local, regional and state levels is more specifically described in Table 17.

Table 17. Specific Groups, Agency, Individuals Working With Extension in Land Use Planning Programs and Their Level of Involvement in Twenty-one States, July, 1966

Groups Involved	Number of States and Area of Involvement		
	Local	Regional	State
1. Citizen study groups only	2	--	--
2. Consultants, consulting firms only	--	--	--
3. Elected or appointed planning commissions only	--	--	2
4. Cooperative Extension Service only	1	3	1
5. Elected groups, County Board, etc., only	1	--	--
6. Combination of 1 and 3 and 4 and 5	5	--	--
7. Combination of 1 and 2 and 3 and 4 and 5	4	--	--
8. Combination of 3 and 4	--	2	--
9. Other combinations <sup>1</sup>	9	7	4

<sup>1</sup>This classification includes miscellaneous combinations other than those described in Numbers 1 through 8. All combinations in this group are different and have not been reported because of their low frequency of use.

Locally, in five states, citizen study groups, elected or appointed planning commissions, elected groups and the CES worked together in land use planning. Four states indicated use of this combination together with a consultant or consulting firm. In two other states, citizen study groups were the only means of land use planning at the local level. The remaining states involved in land use planning at the local level used a total of ten other different combinations of groups.

Regionally, the CES was named by five states as the group most involved, in three states it was the only regional group and in two others it was combined with planning commissions. At the state level only seven states were involved; in two of these states, elected or appointed planning commissions were the only groups involved; in the remaining five, a number of other combinations were given.

Question 10 (d): Has Extension's Land Use Planning Program resulted in guided land use in your State?

This question was designed to reflect the degree of program success, as measured by planned land use, in each of the states reporting an Extension land use planning program.

Thirteen, or slightly over sixty percent, of the twenty-one states involved in a land use program were reported by the respondents as having achieved a measure of guided land use.

Question 10 (e): What specific land use measures have come about as a result of Extension Land Use Planning Programs?

This question was included in an attempt to obtain a description of the various results that might be expected from a land use program. Seventeen state leaders completed this question. The following is a summary of the land use measures which were mentioned most often, together with examples of the measures respondents identified.<sup>1</sup>

(a) Measures to cope with taxation problems.

Taxing according to present not future use.

Preferential state land taxes.

Legislation affecting taxation of land.

(b) Measures to preserve open space and provide recreational land.

Planning for open space.

Increased recreational use of land.

Multiple use of forest land, (recreation, timber, scenery).

(c) Measures to increase or improve area planning.

Area approach to planning.

Formation of planning committees and planning commissions.

Planning for maintaining agricultural and green-belt areas near urban population centers.

---

<sup>1</sup>These statements were summarized from questionnaire responses by the researcher.

(d) Measures to regulate and govern land uses.

An increase in rural planning and zoning.

Zoning law changes and actions by local groups.

Adoption of zoning ordinances.

(e) Measures affecting agricultural land uses.

More intensive use of some agricultural lands.

Conservation of land resources.

Individual farmer decisions based upon land use potential.

(f) Measures affecting watersheds and water supply.

Drainage and land development projects.

Determination of water basin boundaries as a basis for adjudicating water.

Establishment of irrigation districts and irrigation development areas.

(g) Measures affecting community development.

Priority system for road development based upon land use.

Industrial park development.

Community planning based to a limited degree on land use potentials.

Part III--Evaluation of Methods Used In Extension Land Use Programs

Question 11 (a): What was or is the most outstanding single factor which has contributed to the success of Extension's Land Use Program in your State?

Respondents from twenty-four states completed this question, in which they indicate the single factor which they think has contributed to the success of the land use program in their state. The following is a description of the responses to this question, they have been grouped into six broad categories, which have been isolated and defined by the researcher. The category headings are the researcher's; the quotations are from the respondents replies to Question 11 (a).

(a) The educational factors contributing to success in Extension land use programs.

"Recognition that Extension is an educational program, not a planning program per se."

"Publication and distribution of public affairs circulars on land use along with public meetings."

"A well developed educational program on the need for and procedure required in securing irrigation development."

"An educational program and the development of local leadership that can recognize and evaluate needs in land use planning."

(b) Citizen involvement as a factor in the success of land use programs.

"Involvement of representatives from each social group and subgroup."

"Involvement of the local people in looking at their land resources."

"The desire of local people to change what now exists."

(c) The effect of adequate, trained staff on program success.

"Dedication of Extension workers to the concept of public educational service through decision making by individuals and groups."

"Educational efforts of specialists and area resource development agents plus research of agricultural economists."

"Use of qualified out-of-state specialists who have experienced the problems involved in land use planning."

- (d) Cooperation between Extension and other agencies as a factor in program success.

"Cooperative effort between State Highway Department, local citizens and Cooperative Extension Service."

"A new governor's agricultural commission and a consequent agricultural potential study. Promotion of land use programs by state and federal agencies."

- (e) Research and background knowledge as a factor in program success.

"Breadth of research effort, which included excellent long term work in agricultural land use, and also much relative to other forms of land use--woodlot forestry, fish and wildlife management, and outdoor recreation in several forms."

"Development of knowledge that land use planning would keep control of unsound development; as a stop sign protects people from being run over at the crossroads."

- (f) Other important factors leading to success in Extension land use programs.

"Population pressure and awareness of need to solve problems therefrom."

"The desire of local people to change what now exists."

"Increased recognition of competition between agriculture and non-agricultural uses of land."

"By promoting land use planning as a way to guide growth and to prevent problems from arising in the future."

Question 11 (b): What single factor would you point out as a pitfall which should be avoided in an Extension land use program?

Extension leaders from twenty-four states completed this question. The following description of their responses has been grouped into five broad categories by the researcher. The category headings are the researcher's; the quotations are taken from the respondents answers to Question 11 (b).

- (a) Extension assuming technical planning functions, a pitfall to program success.

"Assuming planning functions normally the responsibility of the planner."

"We have avoided involvement in the technical aspects of planning--the whole area served by the planning profession and others--thereby, we feel we have avoided a pitfall."

"Overlooking the fact that Extension's role is educational, not one of implementing service efforts, Extension will be well advised to work with planning agencies and not compete with them."

- (b) Emphasizing zoning and legislation as part of a land use program, a pitfall to program success.

"Creating an impression that the primary objective of the program is to bring in zoning."

"Do not emphasize zoning as the initial objective of the program."

"Land use legislation is controversial particularly when it poses a threat to some land owners and developers."

- (c) Failure to involve local people, elected leaders and others concerned with land use problems, a pitfall to program success.

"Local leadership and power structure must be involved."

"Failure to involve elected officials."

"Development of plans without involvement of local people."

"Do involve urban as well as rural interests. Do work with and involve all other agricultural agencies interested in land and water use."

"Moving too fast without understanding by the general populace--particularly farm groups."

(d) Assignment and use of staff from Extension and other professions as a factor in program success.

"Not enough staff time devoted to this program to make a real impact."

"Lack of adequate technical support from disciplines outside the historical agricultural college ones."

"Lack of research by resident staff."

"Attempting to bite off too much--lack of competent staff at local, regional level."

(e) Extension's role, some pitfalls to be avoided.

"Delays--Extension must be in the lead, not wait for public demand."

"Traditional rural Extension audiences, like any other occupational group, have a somewhat vested interest in land use. Broader audiences are needed to objectively study and compromise differences."

"Be sure the education job is well done before decisions are made. Then avoid decisions based on emotion."

"Don't make the procedural steps too long, (in time and number) and not too complicated."

"Moving too rapidly for the people to fully understand the nature and need for a land use program."



Question 11 (c): Please comment briefly on any point or points of your program which you think have not adequately been described in Questions 1 through 11.

Respondents from fourteen states added descriptive comments on the Extension Land Use Program in their State. A cross-section of these comments has been selected by the researcher and included here as a further aid in program analyses.<sup>1</sup>

Several respondents commented upon the cooperative arrangements their Extension program had developed with other agencies. One state leader said:

"Both overall development and Extension programs include kinds of land use and intensiveness of land use. A strong state land use planning agency has precluded Extension doing technical land use planning. We have worked in it as related to overall or resource development, including ways of increasing agricultural income."

Another respondent stated:

"Our educational program has been mostly in cooperation with state and federal agencies and has pinpointed issues of public concern. The study used is a part of the state's planning program and is being adapted to regions and counties. The total land use planning concept is handled in 'small bites' in application at the local and county levels."

An administrator commented:

"Extension needs to be involved in and conduct educational programs in soil and water conservation and work cooperatively with SCS, USDA, rather than turn all soil and water conservation problems and work over to SCS."

Respondents from five states commented on Extension's role in planning; one respondent indicated:

---

<sup>1</sup>This selection is representative of the views expressed.

"We now have on our State Extension staff a full time planner, who has given our staff added incentive and provided resources for a more intensive land use program."

Another state leader said:

"While we are not in the blueprint drawing business, we are working hard to inform our Extension personnel, plus key leaders, and the public, what planning is all about; planning as conducted by professional planners."

An Extension leader mentioned:

"Requests to Extension regarding land use are often related to a necessary prerequisite to plan for a public development program. Extension's interests are broader than merely seeking funds for a particular local project. Emphasis on creating a wider understanding of land use problems is appropriate."

A number of respondents made other brief comments on the organization of Extension land use programs in their state. One said:

"We have no formal land use project as such, but, rather, involvement through our work in economic and community development. One county Extension staff has been asked by its advisory council to devote fifty percent of its time to subdivision and zoning education."

Another respondent described the program in his state as follows:

"While there have been other land use studies, the ones referred to mostly are the ones having to do with land use in relation to road planning which was the basis for determining priorities for road construction of farm to market roads or secondary highways."

Another leader described the program in his state:

"Public meetings on land use have been held in every county. Helping residents understand the need and desirability of land use legislation in a state where urban enroachment into prime agricultural land was mandatory."

The respondents comments reflect general agreement on the need for an educational approach to land use programs. However, perusal of the response to Question 11 (c) indicates the diversity of approaches applied in each State.

In Chapter V the data gathered with the questionnaire will be more thoroughly examined and compared with the literature reviewed in Chapter III. This procedure will provide an opportunity to present a composite set of findings and relate them to the objectives of the study.

## CHAPTER V

### DISCUSSION OF LITERATURE REVIEW AND QUESTIONNAIRE RESPONSES AS THEY RELATE TO THE OBJECTIVES OF THE STUDY

Available literature on Extension's role and Extension programs in the field of land use was reviewed in Chapter III. In Chapter IV, the responses to a questionnaire on land use programs were presented. This Chapter is an attempt to compare and contrast the data described in Chapters III and IV, and relate them to the objectives outlined in Chapter I.

The chapter will be divided into four sections; each section will represent a discussion of the data pertaining to one of the analytic steps listed in Chapter I.

Step 1--To determine the extent, average tenure, reasons for and goals of Extension land use programs in the United States.

The literature reviewed in nine land use case studies indicates that this type of program is not new. The first serious effort to develop a land use program was initiated in the late 1930's, however, for political and monetary reasons it was shortlived. In the past ten years, a number of states have again become involved in programs to help resolve land use issues. The states included in the literature review appear to consider land use programs as a part of their ongoing Extension program.

The reasons for beginning a land use or similar program are rather consistently indicated in the literature. With few exceptions, land use programs have begun because professional Extension workers or others involved in the Land Grant University have recognized a need for a problem solving approach to land use problems and issues. Program goals also display a high measure of uniformity. In the nine case studies reviewed, the underlying goals of each seemed to center on the need to involve citizens in a process of education, designed to increase problem awareness.

° ° ° ° ° °

Analysis of the questionnaire data attests that land use programs are now, and have been, an integral part of Extension's program in thirty states. The length of tenure varies from three to eleven years with the average being approximately eight years.

Analysis of questionnaire responses indicated that views and opinions of professional Extension workers have been the primary reason for beginning a land use program. There is a strong evidence, however, that the opinions of community leaders have also had a major effect on program initiation.

The state leaders responding to the questionnaire consistently affirmed that the primary goal of their Extension land use program was education. The goals of the educational program as described by the respondents appear to

include preparing citizens and citizen representatives for intelligent and objective decision making and planning for the better use of their community's land resources.

There appears to be similarity between the program descriptions given in the literature and the data obtained from the questionnaire responses. The data obtained from both sources may be summarized as follows: land use programs are an ongoing, integral part of Extension programming in thirty U.S. states. They usually are initiated as a result of land use problems recognized by professional Extension workers and as a result of requests from citizen leaders. In most states land use programs are designed to provide an educational basis for problem solving.

Step 2--To determine the extent to which agencies other than Extension participated in the various land use programs and the type of coordination used to effectively work with these agencies.

Review of the literature on Extension land use programs demonstrates the significant role played by organizations, individuals and groups external to the sponsoring or organizing agency. In most of the organizational studies reported in Chapter III, combinations of resources from outside the organization were usually mentioned. There was not a set pattern, nor was there a uniform degree of participation of all groups, rather, each program reported enlisted the support of other agencies as required. Generally it appears that a

core

ization

learn

most

ation

aril

educ

ing

for

staff

and

role

atic

the

sio

men

are

le.

an

gr

re

an

an

co

core of external resource groups with subject matter specialization cooperated with the educational agency in providing learning experiences and materials.

A coordinating body or committee is also reported in most of the case studies. In those states where a coordinating committee was used it was given two major roles. Primarily, it was responsible for designing and organizing the educational program, in some cases this role included compiling source materials for group discussion, producing guides for program organization and organizing training programs for staff members. In most cases it also accumulated, summarized and interpreted the results of local citizen study. A second role assigned coordinating bodies was to act as a communication linkage between the organizational systems involved in the land use program and the various subsystems of the Extension service.

Usually the coordinating committee was made up of membership representing the Extension service, non-extension areas of the Land Grant University, and in some cases citizen leaders, USDA employees, representatives from state agencies, and other groups having an interest in and influence on program success. Coordinating bodies were found at the local, regional and state levels in the cases reviewed. The local and regional bodies usually were a mixture of professional and lay groups, while those at the state level were most often composed of professionals.



a bro

indiv

eight

ipati

zent

repre

inter

a he

enca

stat

Univ

numb

trib

prol

Mat

of

USD

att

use

dat

bec

Analysis of data from the questionnaire reveals that a broad spectrum of external resource agencies, groups and individuals were involved in land use study in the twenty-eight states from which data were analyzed.<sup>1</sup> Those participating included private individuals and firms, state government agencies, USDA personnel, farm organizations, elected representatives, planning commissions and others with an interest in land use issues.

At the local and regional level of program operation a heterogeneous mixture of citizen leaders, elected representatives, private firms, professionals, and technicians from state and federal government, and representatives from the University appear to be involved. As the area widened, the number of "lay" resources and/or private firm resources contributing decreased, and the number of publicly employed professionals increased.

Seven states reported the use of a coordinating committee and implied that their committee was usually composed of membership from the Extension Service, farm organizations, USDA agencies and agencies of state government.

o o o o o o

There is a substantial agreement between the literature reviewed and the questionnaire results, concerning the

---

<sup>1</sup>Although thirty states reported an Extension land use program, responses were received from two states after data analyses had been completed. Therefore, they have not been included here.

use

orga

agen

rel

con

pro

com

dat

evic

in

app

org

eti

aiw

dat

or

use

per

Ste

wer

pla

gro

of

par

use of resource agencies or groups from outside the Extension organization. The agencies named in the literature and the agencies indicated most often in the questionnaire are closely related. It appears that the use of resource agencies may be considered to be an integral part of an Extension land use program.

While the case studies indicate the importance of a committee to coordinate and guide Extension programs, the data collected in the questionnaire do not provide strong evidence indicating that most states include such a committee in their land use program. One possible reason for this apparent discrepancy may be the mechanical difficulty in organizing a guidance committee. That is, while it is theoretically important to have a guidance committee, it is not always practically possible to organize one. Thus, while the data analyzed do not conclusively show that a coordinating or guidance committee is always a part of an Extension land use program, there is evidence indicating that it is an important part of these programs in a number of states.

Step 3--To determine the degree to which the various states were involved in the phases, land use study, education and planning, the areal levels of involvement, the persons or groups involved, the Extension methods used and the degree of success attained.

Because of the complexity of this objective, the comparison of literature and questionnaire will be divided into

subsections: (a) phases used and level of involvement; (b) persons or groups involved; (c) Extension methods used; (d) degree of success attained.

Phases Used and Level of Involvement: The literature reviewed implies involvement in land use programs at the local, regional and state levels. Most programs reviewed involved a process of study within an educational setting. That is, study of a situation or a particular problem was included within an educational program. In some cases the study phase led to recommendations and suggestions upon which planning might be based.

Although educational programs involving situation study leading to action recommendations have taken place at local, regional and state levels; the local and regional levels are most often mentioned in the literature. Some of the literature reviewed indicated that there was an increasingly strong trend toward program emphasis at the regional, rather than local level. At the state level the primary activity in all cases studied appeared to be coordination and direction of the program. In most cases recommendations from county or regional study were collected and analyzed at the state level.

o o o o o o

The data obtained from questionnaire response indicates that the programs reported included a combination of the phases: study, education and planning. Most respondents

inf

are

ati

in

pro

the

edu

es;

and

(e.

pla

nal

use

com

ati

Two

at

edu

mos

loc

the

pha

has

inferred that study and education must take place first and are an integral part of each other. Planning preceded education in one state and in another it was the only phase used; in all others, it was considered to be the final step in the problem solving process. When the respondents designated the specific phases which were part of their state's program, education was most often mentioned, (twenty-six of twenty-eight states reporting at the local level). Land use study and land use planning were assigned a role of less importance, (eighteen states participated in study and nineteen states in planning at the local level). It appears from the questionnaire responses, that education is the major phase of a land use program in most states.

The respondents indicated that land use programs are concentrated at the local and regional levels. Land use educational programs in particular are most often found locally. Twenty-six respondents reported a land use education program at the local level and eighteen reported a regional land use education program. Land use study and planning were found most often locally, the difference between the number at the local and regional level was relatively small.

o o o o o o

There is close agreement between the literature and the questionnaire responses on the subject of the program phases, and their level of use. It is apparent that education has been the most important segment of Extension land use

pro

pho

of

loc

Pe

st

la

us

re

gr

(c

la

in

co

ar

in

pr

ed

v

ti

th

th

a

th

se

cc



programs. The educational phase is integrated with the study phases with the apparent expected result being, development of objective decision making on land use problems at the local, and to an increasing extent, the regional level.

Persons or Groups Involved in Land Use Programs: In all case studies reviewed, involvement of various elected, appointed, lay, professional and technical groups and committees in land use programs was described. Locally, and to a large extent regionally, it is suggested in the literature that citizen groups, elected bodies and the membership of interest groups, (farm organizations, for example) are heavily involved in the land use programs of the states studied. Involvement may be in the form of study discussion groups, advisory or planning committees and other similar citizen bodies. These groups are usually involved through an education program designed to increase awareness of and arrive at a solution to land use problems of community interest. A number of technical and educational groups including the Cooperative Extension Service (CES), USDA, state agencies and in some cases private firms or individuals are also involved locally and regionally. These groups provide educational and technical support for the various community groups involved in the land use programs.

At the state level, most of the case studies suggest a minor role for lay leaders and the various citizen groups. The state level is most often the preserve of the planning technician and the professional charged with organizing, coordinating and promoting local and regional efforts.

. . . . .

The state leaders completing the questionnaire designated citizens groups, elected bodies, private individuals and firms, Extension, University staff and employees of state and federal agencies as being involved in the phases: land use study, education and planning. The degree and areal level of their involvement varied with the phase, the makeup and expected role of the group or agency being considered. Generally citizen groups and private individuals or firms were most active at the local or regional level, while professional and technical agencies or individuals participated most often at the state, or regional and state level.

Specifically, local citizen groups, elected or appointed planning commissions and to a lesser extent consulting firms, were most involved in land use study at the local and regional level. Local citizen groups and planning commissions also appear to be the major land use education audience at the local and regional level. These two groups also seem to be most involved in land use planning activities. Consulting firms participated to a limited extent in land use study and planning at the local and regional level in some states.

The respondents indicated that the CES was heavily involved in land use educational programs at all three area levels and made major contributions to land use planning efforts at the local and regional level. The technical and professional agencies, not part of the CES, participated in

all phases, but most specifically in land use study and planning. With few exceptions, (for example, a state technical committee participated in land use study at the local level in five states), these groups usually were reported to be most active at the state or state and regional levels.

Analyses of the questionnaire data indicated that while citizen study groups and similar bodies were the major groups involved in land use programs, in only a small number of states, (five states in land use study, four states in land use education and two states in land use planning) were they the only group involved. In most states citizen groups, elected bodies, and technical or professional resources persons or agencies worked together, or were a common audience in the case of land use education, in an effort to alleviate land use problems.

o o o o o o

The case studies reviewed in the literature and the data from those responding to the questionnaire are in substantial agreement insofar as groups involved and level of involvement. It appears that citizen groups and/or elected bodies of various kinds are of primary importance in a land use program at the local level. The CES plays an important role at the local, regional and state level. Other technical or professional groups have supporting roles, usually at the state level, but they may participate in some phases of a land use program, specifically study and planning, at all three areal levels.

**Extension and Educational Methods Used in Land Use Programs:**

Review of the literature disclosed that Extension has used three major types of educational methods in its land use program. Usually a combination of individual contacts, group contacts and mass media contacts have been used to reach the clientele involved or about to be involved in land use programs. The following is a description of a pattern common to the methods used in the majority of the state programs reported in the case studies.

A state committee consisting of members of Extension's staff and relevant non-extension specialists designs a land use program. This program usually involves a series of citizen study or study discussion groups which are organized at the local or regional level by an Extension agent. The Extension agent, in some cases, with the assistance of other "resource people" organizes an educational program for recognized community leaders and others interested in the subject matter. These leaders may then be asked to organize study discussion groups in their local areas, or may form the nucleus of a group designed to study the land use situation in their community. A series of "fact sheets" and study guides prepared at the state level is usually given to the study discussion group and/or the Extension agent. These materials are used to promote discussion and are expected to lead to recommendations from the community or area concerned. This program is usually backed by a series of radio and/or television broadcasts, plus newspapers and other mass media.

There are many variations on this format. Generally the state programs reviewed include discussion and workshop techniques, backed by study guidelines and technical and/or professional help to create awareness of land use problems. Training programs for members of the CES are also mentioned in the literature as an important facet of an overall education program.

° ° ° ° ° °

The state leaders responding to the questionnaire described the three most important educational means used at the local and regional level as: study discussion groups, workshops with planning commissions and training programs for CES workers. At the state level, training programs for the CES, mass media and state Extension publications were the most used methods.

Analyses of the responses to determine the single most common educational method or methods failed to depict a constant pattern in use in all states, however, study discussion groups and planning commission workshops were the two most used educational techniques. In most cases these techniques were supplemented by one or more of the following: training programs for the CES, mass media and statewide publications.

° ° ° ° ° °

There is a close agreement between the educational methods outlined in the literature and those indicated in the questionnaire data. However, there does not appear to be any one pattern followed by Extension programmers in all states. The pattern mentioned most often in the literature and questionnaire suggests that land use education programs involve, citizen study discussion and workshops with planning commissions at the local and regional level, supplemented by publications and mass media at the state and regional level, and training programs for CES Extension agents locally and regionally.

A Measure of Success Attained: The literature reviewed on land use programs for the most part did not describe the degree of success attained.

o o o o o o

The respondents in completing the questionnaire indicated that most programs had resulted in an inventory of the land use situation, some increase in citizen awareness of land use problems and had had a limited effect on land use planning. Therefore, it seems that Extension land use programs have had some impact on the land use situation in those states which have become involved in land use programs. The impact has been greatest in the areas of situation study and land use education, and of lesser importance in planning. The measurable results reported by the state leaders responding and summarized here by the researcher include:

Action related to land taxation problems.

Measures to preserve open space and recreational land.

An increase in area planning.

Introduction of land use regulations.

More effective use of agricultural land.

Action on watershed and water problems.

Increased community development activities.

Step 4--To obtain the subjective opinions of Extension workers in administrative or specialist positions, related to land use and land use program construction.

The Extension administrators and specialists were asked to describe the factors which led to program success, pitfalls which might undermine program success and other factors which they felt were an important part of Extension's land use program in their state.

The factors which respondents most often indicated as being necessary for success were identified and summarized by the researcher as:

An educational program backed by strong staff and specialist resources and designed to develop local interest and leadership in land use problems and issues.

Involvement of local people from all walks of life, including local formal and informal leadership.

Inter-agency cooperation and coordination in an all out effort to research and develop a program that will meet the needs of citizens.

The factors respondents identified as pitfalls to program success were isolated by the researcher and are summarized in the following five points:

Extension is an educational agency and should provide programs designed to help people understand the planning process, but it should not become involved in actual land use planning.

An Extension land use program should not be built around an ultimate goal of achieving zoning or similar use regulations.

Program staffing can mean success or failure. Inadequate staff training and/or retraining, and misuse of technical staff from other agencies should be avoided.

Attempting to operate a program on too narrow a base, (example, involving farmers only).

Moving too rapidly.

Respondents also listed a number of other factors which they thought were an important part of their states land use program. In these responses they stressed the need for cooperative inter-agency links and that Extension's role was primarily educational, and as such, it should work with citizens in preparation for planning. This last comment in many ways sums up the results of the analysis of questionnaire data and the literature.



## CHAPTER VI

### SUMMARY, CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

The material presented in this chapter includes a summary of the study results; some considerations for future land use programs which have been concluded from study results; implications for the design of Extension land use programs; study limitations; and, recommendations for future research.

#### Summary

This exploratory study focused upon the role of the Cooperative Extension Service (CES) in the amelioration of land use problems. The role of the CES in land use was determined through an analysis of available literature and the collective responses of State Rural Areas Development Leaders, (or persons of equivalent rank) in the United States.

The literature review consisted of: an analysis of materials descriptive of land use problems and issues and their causes; and an examination of nine case studies describing land use programs in a number of states. A questionnaire was constructed to gather data from Extension leaders in each state. All of the potential respondents provided useable responses.

The questionnaire responses and the literature review were analyzed and compared. Analyses revealed a number of

trends and apparent trends in Extension land use programming, these are summarized in the following paragraphs.

The CES is now and has been involved in land use programs during an average of eight of the past eleven years, in thirty of the fifty states responding to the questionnaire. These programs have usually begun as a result of Extension and/or community leaders recognizing a need for study of land use problems. Their basic objective is to increase citizen awareness of land use problems, and to provide a foundation for objective decision making on problems vital to community development.

Agencies providing technical advice, professional leadership, moral and in some cases monetary support supplemented the resources of the CES in all states reporting a land use program. These groups provided assistance in all phases of the various programs.

Land use programs may be directed or administered and designed at the county, regional or state level. The methodology varies between states. In the nine case studies reported the states involved normally had a state level coordinating committee responsible for overall operation of the program. Questionnaire data analyses indicated the presence of a state level coordinating committee in seven states, the remaining twenty-one did not specifically mention the use of a coordinating body.

The major target audience throughout the study, education and planning phases of Extension land use programs was

reported in the literature and by the Extension leaders responding to the questionnaire as: citizen groups, elected or appointed planning or governing bodies and staff members of the CES. Citizen study discussion groups, workshops with planning commissions, mass media, publications and training programs for CES employees have all been used to influence the target audiences in each state. These methods were supplemented during the study and planning phases by technical and professional assistance from CES specialists, staff members of the University, state, federal, and in some cases private agencies.

The trend in most states is to use citizen study or study discussion groups and workshops with planning bodies at the local, county and regional levels. Training programs for CES employees are most often held at the regional and state level. Technical and professional assistance may be applied at all levels, but its primary function is assistance at the state level. Most state leaders reported that land use programs have resulted in increased citizen awareness of land use problems. They indicated that controlled community growth, better use of land and planned allocation of land resources resulted from citizen groups participating in the interpretation of community land problems.

#### Considerations For Future Land Use Programs

The researcher has combined the evidence obtained through analysis of data and reviews of the literature, with

insights gained from his Extension experience, and has formulated a number of conclusions. These conclusions are presented in the following list of considerations for future land use programs.

1. Community and land use planning in urban, urban-fringe and rural areas offers an effective approach to ameliorating the land use problems facing most American communities. The literature reviewed emphasized the value of planning, based upon the needs and desires of people in the local community and tempered by the effects of the wider community. The state leaders responding to the questionnaire offered evidence that land use guidance instruments, developed as a result of land use programs, had been used to attain community land use goals.

2. The Cooperative Extension Service should play a key role in the formulation of educational programs designed to alleviate land use problems. The CES, because of the legal and legislative provisions of the Smith-Lever Act, its long experience in the field of adult education and its access to available technical knowledge in the University, appears to be well suited to this role.

The Extension leader replies to the questionnaire and the literature reviewed, describe an educational role for the CES in the land use field. These two sources appear to ascribe a leading role to the CES in initiating programs designed to increase awareness of land use problems and possible solutions. To accomplish this goal it appears necessary to: prepare citizens and citizen leaders for objective evaluation

of the effects of land use change upon the community; and, to cooperate with citizens and citizen leaders in creating an atmosphere conducive to setting realistic and attainable planning goals.

3. The technical aspects of land use data collection and land use planning do not seem to be a part of an Extension land use program. That is, those aspects of a land use program requiring technical or professional planning skills may be more adequately treated by the professional planner.

Analyses of the literature and questionnaire responses suggest establishment of cooperative relationships between citizen groups, the CES and planning professionals in all phases of the planning process. The CES appears to be responsible for assisting local citizens and citizen leaders to understand the land use situation in their community. As a result of Extension's educational efforts, citizens should be better prepared to work with and advise the planner during the planning stage and thus be more capable of objective interpretation of the resultant plan.

4. Involvement of formal and informal community leadership in the study, education and planning phases of a land use program appears to be vital to program success. All sources reviewed in this study imply the necessity of local involvement in solving problems directly or indirectly affecting their community.

5. The availability of professional leadership and technical advice from agencies, groups or individuals external to

the CES organization is an important factor in the success of land use programs. These resource agencies can provide leadership, technical, moral and in some cases, monetary support, to both the CES and local citizen groups in the study, education and planning phases of land use programs.

6. A guidance committee coordinating all phases of the program is an important factor in the success of Extension land use programs. The literature reviewed and Extension leaders replies to the questionnaire, suggest the inter-agency and interdisciplinary cooperation needed in developing a land use program. A guidance committee would function as a linkage point between the CES, citizens groups and the various disciplines and agencies involved.

7. The educational methods used and the area levels at which land use programs are applied are not clearly defined. Analyses of questionnaire data and the literature implied that land use programs were formulated at the state level and applied at the local and/or regional level. Citizen study groups, educational programs for elected officials and training programs for CES employees, supplemented by use of mass media and published materials were the most common educational methods used. It is suggested that the determination of program content, educational methods and area of operation is dependent upon the needs and characteristics of the community, county, region, or state involved. Thus, it seems that the final decision must be based upon research followed by an objective evaluation of the total land use situation in the political division or divisions concerned.

8. The issues and problems arising from the changing land use situation are very complex. Designing a program to effectively present these issues to the public is equally complex. It requires a step by step process, leading to isolation of priority land use issues, determination of appropriate methods required to pursue these issues, and selection of the needed professional, technical and monetary resources necessary for fulfillment of program goals.

This process is illustrated in the following program outline:

Step 1--Land use problems are recognized by Extension leaders and/or citizen leaders. A decision is reached to begin a program to cope with these problems.

Step 2--A guidance committee consisting of Extension administrators and specialists is appointed at the state level. This committee's responsibilities include:

- (a) Isolating specific land use issues and problems.
- (b) Determination of program construction; the areal levels to be involved, target audience, and educational methods to be used.
- (c) Determination of the resource agencies, groups or individuals to be involved.

Step 3--Involvement of University staff, and representatives from various state, federal and private agencies with skills required to fill gaps in Extension knowledge.

Step 4--In consultation with the various resource agencies and, if possible, representative citizens from the area(s)

to be involved; program direction, and content are solidified. In arriving at program content, the problem areas are clearly defined and the goals and objectives are tailored to the needs of the people and communities concerned.

Step 5--The guidance committee in consultation with the resource agencies involved, defines the expected role of each agency, group or individual involved in the formulation and application of the program.

Step 6--An overall program outline is developed providing for:

- (a) Establishment of a central theme and development of program materials at the state level.
- (b) Organization at the county or regional level of a coordinating committee with membership drawn from Extension; the resource agencies, groups or individuals with an interest in the program; and local groups and individuals with formal or informal leadership roles in the county or region in question. This committee would be given responsibility for shaping the direction of the land use program in their area.
- (c) An educational program to fully acquaint the county or regional coordinating committee with the goals, proposed methods and anticipated results.
- (d) Establishment of a communication linkage between the county or regional coordinating committee and the state guidance committee.



- (e) Establishment of citizen study groups on the local level.
- (f) Establishment of a communication linkage from local study groups to the county or regional guidance committee.
- (g) Maintenance of a two way exchange of views between all levels.

#### Implications For The Design Of Extension Land Use Programs

The results and conclusions arising from this study suggest several considerations important in the genesis and successful operation of Extension land use programs. These considerations or implications are presented here in the belief that they may be useful in the development of land use programs.

1. The problems and issues of land use in most states are not exclusively related to agriculture and rural life. The dynamic effects of urbanization must be considered in the formulation of an Extension land use program.

Although the Cooperative Extension Service is an experienced adult education agency, much of its experience has been in rural areas, with rural people. Traditionally, the CES has been concerned with those education and service functions which facilitate individual farm and farm family decision making. The new CES role in the area of land use issues is to facilitate an understanding by rural and urban people of the dynamic land use situation and its effect on the community.

Acceptance of this new role implies a willingness to change on the part of the CES. Change may mean reorientation of programs, retraining staff, and establishment of new patterns of communication and cooperation with farm and non-farm agencies and organizations.

2. An Extension land use program relies heavily upon two sources of leadership; the Extension staff itself, and formal or informal community leadership.

A training program for CES staff seems mandatory in any state beginning a land use program. All aspects of the land use program including the educational methods to be used, the roles assigned each agency and individual staff member and the expected results, should be included in the training program.

The educational technique used will determine the extent of training programs for lay leadership. For example, if study discussion groups are to be used, local discussion leaders may have to be trained in discussion techniques. However, regardless of the technique used, some leader training appears to be necessary.

3. If the goal of Extension's land use program is to help citizens understand the need for planning and the methods of planning, professional planners should be included in the formulation of the program. This may imply employment of a professional planner as part of the Extension staff or procurement of a planner or planning firm on a consultant basis.

Participation by professional planners probably should not be limited to the program formulation stages. There seems to be a role for the planner in the educational program. Establishment and maintenance of a dialogue between planners and citizen groups is highly desirable. A two way exchange of ideas before and during the planning process should benefit both the planner and the community by increasing the acceptability of the professional plan.

### Study Limitations

1. The complex structure of the Cooperative Extension Service makes a study of the organization difficult. Recognizing this situation, the study was designed as carefully as possible. However, there were certain limitations in the design and procedures which limit the application of the findings.

2. There are a number of limitations resulting from questionnaire construction, which might have effected the results; four of the most basic are:

- (a) The instrument was pretested, but this was the first time it was actually used to gather data.
- (b) The terminology used in the questionnaire may have biased the respondents answers. Terms such as, land use, land use programs, land use study and land use planning have been used interchangeably in the past, thus, they may have been interpreted in different ways by the respondents.

- (c) The order in which the questions appeared and/or the phraseology employed may have influenced the response, by arousing the respondents' emotions or by breaking their thought patterns.
- (d) The questionnaire was designed to obtain a wide range of information of both specific and general nature and may have presented opportunities for misinterpretation.

3. The respondents were limited to those directly involved in administrative or policy making roles in the CES. It is recognized that there are many others within the CES and external to it, who influence, participate in or gain from CES programs. These staff members, Land Grant University personnel, USDA administrators, client groups, legislators, etc., were not included in this study, because of the many varied roles they play.

4. Although the questionnaire was addressed to the Rural Areas Development Leader in each state, the response was not always received from the person in this position. Therefore, there is a possibility that the response may have differed slightly, especially if the respondent was not completely familiar with his state's program.

5. The validity of the questionnaire response is another limiting factor. Did the respondents answer the questions as they applied to the ongoing program in their state or did they attempt to provide "theoretically correct" answers? The validity of the response could have been ascertained by

personal interview, however, this was not a practical alternative in this study.

6. The case studies reviewed may not represent a true cross-section of Extension land use programs in the United States for three basic reasons:

- (a) Most of the reports reviewed were written by Extension oriented authors, thus, there was a possibility that they may have been biased in Extension's favor.
- (b) The number of cases reviewed (nine) may not have been representative of typical Extension land use programs.
- (c) The case studies were interpreted from the literature by the researcher, while every effort was expended to maintain objectivity, the subtle meanings of some passages may have been lost in the interpretive process.

#### Recommendations For Further Research

As a result of this exploratory study of the Cooperative Extension Service's role in land use programs, the following recommendations for further research are offered.

1. This has been a superficial study of the Extension Service's role in land use. A more precise study clearly defining the many facets of a land use program would be very helpful to those involved in Extension program planning. It is suggested that future research might involve depth interviews with Extension administrators, specialists and field staff, as well as representatives of cooperating agencies and

clientele. This study hopefully would examine a number of program areas, including:

- (a) The means devised for achieving inter-agency cooperation and coordination.
- (b) The most efficient methods of introducing any needed adjustments in Extension structure and staff, including, retraining of staff and reorientation of programs.
- (c) The educational methods used; more specifically,
  - (i) The range of methods used, (study discussion groups, workshops, seminars, etc.)
  - (ii) The methods which have been most successful.
  - (iii) The adaptability of these methods to various areas, (urban, suburban, urban fringe, rural.)
  - (iv) The functional educational level of the clientele involved as a factor in the methods used.

2. There does not appear to be a consensus of opinion on the area level most adaptable to land use, study, education or planning. A trend toward programming on a regional basis is suggested in both the literature review and the questionnaire response. However, the methodology used to delineate regions is not clearly defined. Selection of the most appropriate area of operation is an important variable in the construction of any Extension program, including a land use program. Further study, designed to investigate means of determining the area level most adaptable to citizen involvement in the land use planning process seems to be of primary importance.

3. Close cooperation between citizens, the Extension Service and professional planners appears to offer an acceptable means of more widespread use of community plans. There is a need for research, designed to determine the value of this type of cooperation, the most appropriate methods of achieving it, and the obstacles preventing its occurrence.

It is suggested that this research might involve a comparison study of states where planning has been a cooperative effort involving professional planners, Extension and citizens, and states where planning has been carried on by professional planners only. The acceptability and effectiveness of the plan resulting from both planning processes is suggested as the point of evaluation.

## BIBLIOGRAPHY

### Books

- Barlowe, Raleigh. Land Resource Economics. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1963.
- Batten, T. R. Communities and Their Development. London: Oxford University Press, 1957.
- Boylan, Miles. Economics of the Community. Chicago, Illinois: Foresman and Company, 1961.
- Clawson, Marion. Man and Land in the United States. Lincoln, Nebraska: University of Nebraska Press, 1964.
- \_\_\_\_\_. Land for Americans. Resources for the Future Policy Background Series. Chicago, Illinois: Rand McNally Co., 1963.
- \_\_\_\_\_. Land and Water for Recreation. Resources for the Future Policy Background Series. Chicago, Illinois: Rand McNally Co., 1963.
- DuSautoy, Peter. The Organization of a Community Development Program. London: Oxford University Press, 1962.
- Hauser, Phillip M. and Leo F. Schnore. The Study of Urbanization. New York: John Wiley and Sons, 1965.
- Heady, Earl O., (ed.). Dynamics of Land Use--Needed Adjustments. Ames, Iowa: Iowa State University Press, 1961.
- Ottoson, Howard W., (ed.). Land Use Policy and Problems in the United States. Lincoln, Nebraska: University of Nebraska Press, 1963.
- Smith, Herbert H. The Citizens Guide to Zoning. Trenton, New Jersey: Chandler Davis Publishing, 1965.
- Smith, Mervin G. and Carlton F. Christian, (ed.). Adjustments in Agriculture, A National Basebook. Ames, Iowa: Iowa State University Press, 1961.
- Udall, Stewart L. The Quiet Crisis. New York: Holt, Rinehart and Winston, 1963.



United States Department of Agriculture. A Place to Live: The 1963 Yearbook of Agriculture. Washington: U.S. Government Printing Office, 1963.

\_\_\_\_\_. Land: The 1958 Yearbook of Agriculture. Washington: U.S. Government Printing Office, 1958.

### Public Documents

Andrews, Wade H., and J. Ross Eshleman. The New Community. Ohio Agricultural Experiment Station, Research Bulletin 929. Wooster, Ohio: Ohio State University, 1963.

Barlowe, Raleigh. Project 80: Land and Water Resources. Michigan State University, Agriculture Experiment Station, Research Report 52. East Lansing, Michigan: Michigan State University, 1966.

Booth, E. J. R. The Potential For Rural Development in Cherokee County, Oklahoma. Agriculture Experiment Station Bulletin B-548. Stillwater, Oklahoma: Oklahoma State University, 1960.

Carroll, William M., and Robert Wingard. Public and Private Land Use Issues, You and Public Affairs. Cooperative Extension Service, University Park, Pennsylvania: Pennsylvania State University, 1964.

Center For Agricultural and Economic Adjustment. New Areas of Land Grant Extension Education. CAEA Report 10. Ames, Iowa: Iowa State University, 1962.

Christiansen, John R., Sheridan Maitland and John W. Payne. Industrialization and Rural Life in Two Central Utah Counties. Agriculture Experiment Station Bulletin 416, Logan, Utah: Utah State University, No date, approx. 1958-60.

County of Santa Clara Planning Commission. Parks, Recreation and Open Space. San Jose, California: Santa Clara Planning Department, 1962.

\_\_\_\_\_. Land Use Issues in Santa Clara County. San Jose, California: Santa Clara Planning Department, 1963.

Doerflinger, Jon A., and D. G. Marshall. The Story of Price County, Wisconsin. Agriculture Experiment Station, Research Bulletin 220. Madison, Wisconsin: University of Wisconsin, 1960.

- Hein, C. J. The Stake of Rural People in Metropolitan Government. Economic Research Service, Misc. Publication 869. Washington: United States Department of Agriculture, 1962.
- House, Peter. State Action Relating to Farmland on the Rural-Urban Fringe. Economic Research Service, ERS 13. Washington: U. S. Department of Agriculture, 1961.
- Kimball, Wm. J. (ed.). Proceedings: First National Extension Workshop in Community Resource Development. Department of Resource Development. East Lansing, Michigan: Michigan State University, 1965.
- Moore, E. Howard and Raleigh Barlowe. Effects of Suburbanization Upon Rural Land Use. Agricultural Experiment Station Bulletin 253. East Lansing, Michigan: Michigan State University, 1955.
- Neher, Leon C., et. al. What Makes Educational Campaigns Succeed? Agriculture Experiment Station Bulletin 445. Columbus, Ohio: Ohio State University, 1964.
- Nelson, Lowery and George Donohue. Social Change in Goodhue County 1940-65. Agricultural Experiment Station Bulletin 482. Minneapolis, Minnesota: University of Minnesota, 1966.
- Press, Charles and Clarence J. Hein. Farmers and Urban Expansion: A Study of a Michigan Township. Economic Research Service, ERS--59. Washington, D.C.: U. S. Department of Agriculture, 1962.
- Press, Charles and Rodger Rice. Rural Residents and Urban Expansion. Institute for Community Development and Services. East Lansing, Michigan: Michigan State University, 1963.
- Rowlands, Walter A. A Citizens Development Plan for Every County. Extension Service, Circular 617. Madison, Wisconsin: University of Wisconsin, 1963.
- School of Natural Resources, University of Michigan. "The Redeployment of Land, Water and Human Resources." Regional Development Studies II. Ann Arbor, Michigan: University of Michigan, 1962.
- Solberg, Erling D. The Why and How of Rural Zoning. Agriculture Information Bulletin 196. Washington, D.C.: U. S. Department of Agriculture, 1958.

Stansbury, Robert R., Jr. Rural Fringe and Urban Expansion, A Case Study of Prince Georges and Montgomery Counties, Maryland. Economic Research Service, Agr. Economic Report 43. Washington, D.C.: U. S. Department of Agriculture, No Date.

U. S. Department of Agriculture. Land and Water Policy Committee. Land and Water Resources, A Policy Guide. Washington, D.C.: U. S. Department of Agriculture, 1962.

United States Congress. Act of 1914, Providing for Cooperative Extension Work. 38 Stat. 372, and amendment, (7 U.S.C. 341 et. seq.)

University of Illinois. Rural Taxation Problems, Papers presented at a seminar sponsored by the North Central Land Tenure Research Committee and the Farm Foundation. Urbana, Illinois: University of Illinois, 1962.

VandeBerg, Gale L. Total Resource Development in Wisconsin. Extension Service Bulletin. Madison, Wisconsin: University of Wisconsin, 1963.

Vaughan, Gerald F. and Edward C. Moore. Idle Land in an Urbanizing Area: The Delaware Experience. Agriculture Experiment Station Bulletin 349. University of Delaware, 1963.

Walrath, Arthur J. Impacts of Changes in Land Use. U. S. Department of Agriculture, Agricultural Research Service and Wisconsin Agricultural Experiment Station, Bulletin ARS 43-95. Madison, Wisconsin: University of Wisconsin, 1959.

Wolfanger, Louis A. What is Happening in Your Community? Cooperative Extension Service, Bulletin 429. East Lansing, Michigan: Michigan State University, 1964.

### Publications

Borchert, John R., et. al. The Why and How of Community Planning. Minneapolis, Minnesota: The Upper Midwest Economic Study, 1963.

Committee For Economic Development. Guiding Metropolitan Growth. New York: Committee for Economic Development, 1960.

Developing Metropolitan Transportation Policies: A Guide For Local Leadership. New York: Committee For Economic Development, 1965.

- Conservation Council of Ontario. A Report on Land Use.  
Toronto, Ontario: Conservation Council of Ontario, 1960.
- Johnson, Eugene I. The Community Education Project. San  
Bernardino, California: San Bernardino Valley College,  
1956.
- Sears, Roebuck, Community Planning Division. ABC's of Commu-  
nity Planning. Chicago, Illinois: Sears, Roebuck and  
Company, 1962.
- Sehnert, F. H. Community Development, (A Functional Frame-  
work for the Action Process in.) Department of Community  
Development. Carbondale, Illinois: Southern Illinois  
University, 1961.
- Wingo, Lowdon, Jr. The Use of Urban Land: Past, Present,  
and Future. Resources for the Future, Reprint 39.  
Washington, D.C.: Resources For The Future, 1963.

#### Periodicals

- Barlowe, Raleigh. "Minimizing Adverse Effects of Major  
Shifts in Land Use". Journal of Farm Economics, XL,  
No. 5, (December, 1958), pp. 1339-1349.
- Clawson, Marion. "A Positive Approach to Open Space Preser-  
vation". Journal of the American Institute of Planners,  
XXVIII, No. 2, (May, 1962), pp. 124-129.
- Chase, Stuart. "Zoning Comes To Town". Readers Digest,  
(Reprint). (February, 1957).
- Galloway, H. M. "Land Use Planning". Crops and Soils,  
XV, No. 4, (March, April, May, 1964), pp. 2-5.
- Rowlands, W. A. "Today's Need for Planning and Zoning".  
Journal of Soil and Water Conservation, XVII, No. 2  
(March-April, 1962), pp. 62-64.
- \_\_\_\_\_, and D. A. Yanggen. "What's Your Stake in Land  
Use Planning". Crops and Soils, XV, No. 4 (March-April-  
May, 1964), pp. 5-6.
- Scientific American. Vol. 213, No. 3, (September, 1965).
- Whyte, William H., Jr. "Urban Sprawl". Reprinted from;  
Fortune (January, 1958), Area Development Division,  
Detroit Edison.

Unpublished Material

- Ad Hoc Extension Committee on Organization and Policy. "Role of Extension in Economic Development and Social Improvement, Including the RAD Program." Washington, D.C., 1962. (Mimeographed.)
- Bartlett, K. F. "Land Use Planning, It's Beginnings." Term Paper, R.D. 801, Department of Resource Development, Michigan State University. No date. (Mimeographed.)
- Beale, Calvin L., and Donald J. Bogue. "Recent U.S. Population Trends and Their Causes." Washington, D.C.: U.S. Department of Agriculture, 1962. (Mimeographed.)
- Berg, Herbert A. "Land Use Planning as an Extension Activity." Paper read before the Canadian Society of Technical Agriculturists, Toronto, Ontario: July, 1944. (Mimeographed.)
- Bottum, J. Carroll, "Community Resource Development Defined." Paper read before the Second National Extension Workshop in Community Resource Development, East Lansing, Michigan: Michigan State University, July, 1966. (Mimeographed.)
- Center for Agricultural and Economic Adjustment and Education Research Associates. "Cooperative Extension in Relation to Agricultural Adjustment Problems and Changing American Society." Ames, Iowa: Iowa State University, 1960. (Mimeographed.)
- Extension Committee on Organization and Policy. "The Cooperative Extension Service Today, A Statement of Scope and Responsibility." Washington, D.C.: 1958. (Mimeographed.)
- Fanning, J. W. "Increasing University Roles in Community Resource Development." Paper read before the Second National Extension Workshop in Community Resource Development. East Lansing, Michigan: Michigan State University, July, 1966. (Mimeographed.)
- Huffman, G. H. "Relationship Between Program Projection and Rural Development." Federal Extension Service. Washington, D.C.: U. S. Department of Agriculture, 1960. (Mimeographed.)
- Kimball, Wm. J., et. al. "Developing Human Resources in Michigan." County Extension Agents Guidebook for the study discussion program. Michigan Cooperative Extension Service. East Lansing, Michigan: Michigan State University, 1964. (Mimeographed.)

Kimball, Wm. J. "Philosophy and Organization in Michigan's Community Resource Development Program." Paper read before the East North-Central States Regional RAD Workshop. Chicago, Illinois: April, 1964. (Mimeographed.)

\_\_\_\_\_. "Resource Development--Perspective, Progress and Potential." Paper read before the North-Central Rural Sociology Seminar on Resource Development. Lincoln, Nebraska: University of Nebraska, December, 1963. (Mimeographed.)

Luebke, Donald J. "Land Use Planning Under the Mount Weather Agreement and It's Implications for Area Resource Development." Term paper for R.D. 815, Department of Resource Development. East Lansing, Michigan: Michigan State University, 1962. (Mimeographed.)

McMonagle, J. Carl and Robert B. Hotaling. "The Impact of Highway Transportation on Regional and Community Development." Institute for Community Development and Services, Technical Bulletin B-42. East Lansing, Michigan: Michigan State University, 1964. (Mimeographed.)

Miller, Paul A. "The Rural Lag." Paper read before the annual meeting of the National Association of County Agricultural Agents. Pittsburg: 1965. (Mimeographed.)

Rowlands, W. A. "The Planning Process." Paper read at Purdue University. LaFayette, Indiana: May, 1966. (Mimeographed.)

Solberg, Erling D. "Planning and Zoning to Prevent Land and Water Problems in Suburbia." Paper read to Urban Extension Agents Conference. Farmingdale, Long Island, New York: 1962. (Mimeographed.)

Southern, John H. "Implications of Population and Occupational Change for Rural Areas Development." Paper read at the 40th. Annual Agricultural Outlook Conference. Economic Research Service. Washington, D.C.: U. S. Department of Agriculture, 1962. (Mimeographed.)

Suggitt, Frank W. "The Broad Problems of Rural Communities." Paper read at North Central Extension Director's Meeting. Manhattan, Kansas: 1960. (Mimeographed.)

\_\_\_\_\_. "I Would Like To Say." East Lansing, Michigan: Michigan State College, 1950. (Mimeographed.)

Timmons, John F. "Conference Summary Remarks, National Conference on Land and People." U. S. Department of Agriculture, January, 1962. (Mimeographed.)

West Virginia University, "Role of the Cooperative Extension Service in Public Policy Issues." Proceedings of the First Northeast Extension Seminar in Public Issues Involving Land. Cooperative Extension Service. Morgantown, West Virginia: West Virginia University, 1965. (Mimeographed.)

Zeidler, Frank P. "Some Social and Cultural Consequences of Urbanism." Paper read at the Great Cities School Improvement Workshop. August, 1962. (Mimeographed.)

#### Other Sources

Michigan State University. Personal interviews with H. A. Berg, September, 1966.

\_\_\_\_\_. Notes taken by the researcher during attendance at a two day land use seminar, sponsored by the Michigan Cooperative Extension Service, June, 1966.

\_\_\_\_\_. Personal interviews with several Administrators and Specialists in the Michigan Cooperative Extension Service, May-September, 1966.

\_\_\_\_\_. Personal interviews with Extension Administrators and Specialists from various states, during the Second National Extension Workshop in Community Resource Development, July, 1966.

## APPENDIX A

### CORRESPONDENCE AND QUESTIONNAIRE



COOPERATIVE EXTENSION SERVICE

MICHIGAN STATE UNIVERSITY • EAST LANSING • MICHIGAN 48823

Department of Resource Development

AND U.S. DEPARTMENT OF AGRICULTURE COOPERATING

July 26, 1966

Dear Friend:

Land Use Programs have been an important part of Extension work for many years. There is new interest in this subject matter in connection with current directions in Community Resource Development.

The enclosed questionnaire is part of a study concerned specifically with determining methods and procedures used in Land Use Programs in the United States. The results of this study will be used to guide a Land Use Program about to be undertaken by the Michigan Cooperative Extension Service. A master's thesis will also result from the analysis of the enclosed questionnaire.

Your knowledge and experience in Extension Resource and Area Development Programs will be useful in interpreting your states' efforts. The questionnaire will take approximately 15 to 20 minutes; it was pre-tested with members of the Second National Workshop in Community Resource Development.

It will be appreciated if you will complete the questionnaire and return it in the enclosed envelope by August 15th. We will be pleased to send you a summary of the results if you desire.

Thank you for your cooperation.

Sincerely,

W.J. Kimball, Extension Leader  
Resource Development Department  
Michigan State University  
East Lansing, Michigan 48823

Enc: Questionnaire, envl.

8/17/66

TO: State Rural Areas Development Leaders  
SUBJECT: Reminder--Questionnaire on Land Use Programs in  
the United States.

We need information on your state's program so that we may complete our study of land use programs in the United States.

As of August 17, we have not received a completed questionnaire from your state. If you have not already done so, would you please fill it out and send us a copy as soon as possible. Your cooperation and assistance is appreciated.

Sincerely,

William J. Kimball  
Extension Leader  
Community Resource Development

Sample of follow-up postal card.

A QUESTIONNAIRE  
ON  
LAND USE PROGRAMS IN THE UNITED STATES

This questionnaire is an attempt to determine the scope of Land Use Programs in the United States. It is intended to focus on the period beginning about 1955 with "Program Projection" and extending to the present (1966). The data compiled will be used as a guide for a Land Use Program in Michigan and a basis for a related thesis.

This questionnaire is specifically concerned with the role of the Cooperative or Agriculture Extension Service in land use programs in your state. Please do not describe the land use programs of other agencies (Soil Conservation Service, State Planning Commission, etc.), unless they were involved with the Extension Service of your state as part of a combined program.

Definition of a Land Use Program

A Land Use Program for the purposes of this questionnaire is defined as: An organized attempt by an agency, group, or individual to work with communities and/or counties and/or regions and/or state-wide, in an effort to solve land use problems. It involves a process of 1) study leading to an inventory of the land use situation; 2) education leading to an awareness of problems and alternative solutions; 3) planning resulting in the development of blueprints for present and

future land use. In the sense of this definition the end result may be any, all, or none of the following; zoning regulations, land use plans, subdivision regulations, special tax programs, community action, etc. Please answer each question with this definition as your guide.

The questionnaire is divided into three parts: I. An Overview of the Land Use Program in your State; II. Specific Questions on (1) Land Use Study, (2) Education and (3) Planning; III. Evaluation of methodology used in your Land Use Program.

A QUESTIONNAIRE  
ON  
LAND USE PROGRAMS IN THE UNITED STATES  
DEPARTMENT OF RESOURCE DEVELOPMENT  
MICHIGAN STATE UNIVERSITY  
EAST LANSING, MICHIGAN  
JULY 1966

Name \_\_\_\_\_

Position \_\_\_\_\_

State \_\_\_\_\_

I. AN OVERVIEW OF EXTENSION'S LAND USE PROGRAM IN YOUR STATE.

1. Has the Cooperative or Agricultural Extension Service in your State been involved in a land use program at any time since June, 1955?

Yes \_\_\_\_\_ No \_\_\_\_\_

IF YOUR ANSWER TO QUESTION (1) IS "NO" PLEASE RETURN THE QUESTIONNAIRE, ANSWERING QUESTION (1) ONLY. IF "YES", PLEASE CONTINUE.

2. During what years was a Land Use Program a part of your Extension Service's effort (since June, 1955)?  
\_\_\_\_\_ (Years)

Is it now part of your program? Yes \_\_\_\_\_ No \_\_\_\_\_

3. What influenced the Cooperative or Agricultural Extension Service to undertake a land use program in your State?

PLEASE CHECK THE APPROPRIATE ITEM(S). Check

Requests from local citizen study groups. \_\_\_\_\_

Requests from elected bodies. \_\_\_\_\_

A survey of professional workers in adult education, natural resources, etc. \_\_\_\_\_

A survey of community opinion in selected communities. \_\_\_\_\_

Conflicts in land uses recognized by Extension leaders. \_\_\_\_\_

Other: (Please Specify) \_\_\_\_\_

4. Which of the following best describes the goals of Extension's land use program in your State?

PLEASE CHECK THE APPROPRIATE ITEM(S).

Check

A basis for establishing zoning regulations. \_\_\_\_\_

Citizen education and community development. \_\_\_\_\_

Education of local elected or appointed officials. \_\_\_\_\_

A basis for future community planning. \_\_\_\_\_

A means of obtaining assistance from various state and federal programs. \_\_\_\_\_

Other: (Please Specify) \_\_\_\_\_

5. (a) Was or is there a state-wide guidance (steering committee with responsibility for directing the land use program in your State?

Yes \_\_\_\_\_ No \_\_\_\_\_

IF YOUR ANSWER IS "NO" PLEASE GO ON TO QUESTION 6. IF "YES", ANSWER 5 (b).

(b) What was or is the state-wide guidance committee's membership?

PLEASE CHECK THE APPROPRIATE ITEM(S).

Check

Cooperative or Agricultural Extension Service. \_\_\_\_\_

Technical Action Panel Agencies. \_\_\_\_\_

State Government Agencies. \_\_\_\_\_

Farm Organizations. \_\_\_\_\_

Urban Organizations (Rotary, Chamber of Commerce, etc.) \_\_\_\_\_

Citizens Organization (Unelected). \_\_\_\_\_

Planning Commission(s). \_\_\_\_\_

Other: (Please Specify) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

6. Which of the following agencies, organizations, and individuals made major contributions to Extension's land use program in your State?

PLEASE CHECK THE APPROPRIATE ITEM(S): AT THE LOCAL LEVEL (LOCAL COMMUNITY, TOWNSHIP, COUNTY); REGIONAL LEVEL (TWO OR MORE CONTIGUOUS COUNTIES); AND STATE LEVEL.

	<u>Local*</u>	<u>Regional*</u>	<u>State*</u>
Specialist and professionals from the Land Grant University, other than those on the Extension payroll. (Economists, lawyers, sociologists, etc.)	_____	_____	_____
State employees, (for example, employees of the State Department of Agriculture, Industry, Health, etc.)	_____	_____	_____
Consultant firms or individuals hired on a fee basis.	_____	_____	_____
Various federal financial assistance programs, Economic Opportunity Act, Section 701, etc.	_____	_____	_____
Elected groups; county boards of supervisors, county commissioners, state or county planning commissions.	_____	_____	_____
Technical Action Panel and affiliated U.S.D.A. agencies.	_____	_____	_____
Citizens, other than those listed above.	_____	_____	_____

\*If Applicable

Other: (Please Specify) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

II. SPECIFIC QUESTIONS ON EXTENSION'S LAND USE STUDY, EDUCATION AND PLANNING PROGRAM.

The introductory page of this questionnaire refers to three phases in a Land Use Program, that is, study, education and planning. The questions in this section of this questionnaire are an attempt to discover how you treated each of these three phases in your State.

7. (a) Has Extension's Land Use Program in your State included the following phases?

	<u>Yes</u>	<u>No</u>
Study	_____	_____
Education	_____	_____
Planning	_____	_____

- (b) If more than one phase was included, in what order were they undertaken? PLEASE RANK.

	<u>Rank</u>
Study	_____
Education	_____
Planning	_____

Land Use Study

Land Use Study is defined as: assembly of State and/or regional information by a State technical committee, followed by area or regional expansion of data by local committees. Study here includes, a survey or inventory of physical features both natural and man-made, of land (space) and its uses.<sup>1</sup>

---

<sup>1</sup>Whenever Land Use Study is mentioned this definition applies.



8. (a) Has the Extension Service in your State undertaken Land Use Study (since June, 1955)?

Yes \_\_\_\_\_ No \_\_\_\_\_

IF "YES", ANSWER QUESTIONS (8) b, c, d; IF "NO", PLEASE GO ON TO QUESTION 9.

- (b) On what area basis has Land Use Study in your State been undertaken?

The county or local level. Yes \_\_\_\_\_ No \_\_\_\_\_

The regional level (two or more contiguous counties or parts thereof). Yes \_\_\_\_\_ No \_\_\_\_\_

The state level. Yes \_\_\_\_\_ No \_\_\_\_\_

- (c) Which of the following best describes the persons or groups most involved with Extension's Land Use Study Program in your State?

PLEASE CHECK THE APPROACH(S) WHICH WERE GIVEN MAJOR CONSIDERATION.

	County or* Local Level	Regional* Level	State-Wide* Level
Citizen study groups.	_____	_____	_____
Study by an elected or appointed planning body.	_____	_____	_____
Study by a consultant or consulting firm.	_____	_____	_____
Study by a State technical committee (members from Land Grant University, Cooperative Extension, etc.)	_____	_____	_____
Study by a government body (Example, State Department of Agriculture.)	_____	_____	_____
Other: (Please Specify)			
_____	_____	_____	_____
_____	_____	_____	_____

\* If Applicable.

(d) Has Extension's Land Use Study Program resulted in an inventory of the land use situation at the state-wide level? Regional level?

Yes \_\_\_\_\_ No \_\_\_\_\_;

Yes \_\_\_\_\_ No \_\_\_\_\_

Local level? Yes \_\_\_\_\_ No \_\_\_\_\_

### Land Use Education

Land Use Education is defined as: creating awareness and understanding of land use problems and alternative solutions among Extension's staff, select groups and/or all the people.<sup>1</sup>

9. (a) Has the Extension Service in your State undertaken Land Use Education (since June, 1955)?

Yes \_\_\_\_\_ No \_\_\_\_\_

IF "YES", ANSWER QUESTIONS (9) b, c, d, e; IF "NO", PLEASE GO ON TO QUESTION 10.

(b) On what area basis has Land Use Education been undertaken in your State?

The county or local level.

Yes \_\_\_\_\_ No \_\_\_\_\_

The regional level (two or more contiguous counties or parts thereof).

Yes \_\_\_\_\_ No \_\_\_\_\_

The state level.

Yes \_\_\_\_\_ No \_\_\_\_\_

(c) Which of the following persons or groups were the target audience for Extension's Land Use Education program?

PLEASE CHECK THE AUDIENCE(S) WHICH WERE GIVEN MAJOR CONSIDERATION IN YOUR STATE.

	County or* <u>Local Level</u>	<u>Regional*</u> <u>Level</u>	<u>State-Wide*</u> <u>Level</u>
Staff members of the Cooperative or Agriculture Extension Service.	_____	_____	_____
Citizen groups.	_____	_____	_____
Elected or appointed planning commissions.	_____	_____	_____

<sup>1</sup>Whenever Land Use Education is mentioned this definition applies.

\*If Applicable.

All the people. \_\_\_\_\_

Other groups: (Please  
Specify)

\_\_\_\_\_

\_\_\_\_\_

(d) Which of the following education tools or methods were used to communicate the educational message to Extension's target audience(s)?

PLEASE CHECK THE TOOL(S) OR METHOD(S) WHICH WERE GIVEN MAJOR CONSIDERATION IN YOUR STATE.

	County or*		
	Local	Regional*	State-Wide*
	Level	Level	Level
Training programs for Cooperative or Agricultural Extension staff.	_____	_____	_____
Mass media (radio, T.V., newspapers, etc.)	_____	_____	_____
Workshops with members of elected or appointed planning bodies.	_____	_____	_____
Study discussion groups made up of citizens selected because of interest in and willingness to deal with the subject matter.	_____	_____	_____
Publications, pamphlets, etc., for use by interested individuals or groups.	_____	_____	_____
Other: (Please Specify)			
_____			
_____			

\*If Applicable.

- (e) Has Extension's Land Use Education program resulted in; very much \_\_\_\_; some \_\_\_\_; little \_\_\_\_; no \_\_\_\_ change in citizen awareness of land use problems and alternative solutions in your State?

### Land Use Planning

Land Use Planning is defined as; organized efforts for involvement of local people in developing economic and social blueprints for land use according to the availability of resources and peoples' needs.<sup>1</sup>

10. (a) Has the Extension Service in your State undertaken Land Use Planning (since June, 1955)?

Yes \_\_\_\_ No \_\_\_\_

IF "YES" ANSWER QUESTION (10) b,c,d,e; IF "NO", PLEASE GO ON TO QUESTION 11.

- (b) On what area basis has Land Use planning been undertaken in your State?

The county or local level. Yes \_\_\_\_ No \_\_\_\_

The regional level (two or more contiguous counties or parts thereof) Yes \_\_\_\_ No \_\_\_\_

The state level. Yes \_\_\_\_ No \_\_\_\_

- (c) Which of the following groups or persons were involved in Extension's Land Use Planning program in your State?

PLEASE CHECK THOSE WHICH WERE GIVEN MAJOR CONSIDERATION.

	County or* Local Level	Regional* Level	State-Wide* Level
Local citizen study groups.	_____	_____	_____
Consultants or consulting firms.	_____	_____	_____
Elected or appointed planning commissions.	_____	_____	_____
Cooperative or Agriculture Extension Service.	_____	_____	_____

<sup>1</sup>Whenever Land Use Planning is mentioned this definition applies.

\*If Applicable.

Elected groups, (Example,  
county boards of super-  
visors, county commiss-  
ions, etc.) \_\_\_\_\_

Other: (Please Specify)

\_\_\_\_\_

\_\_\_\_\_

(d) Has Extension's Land Use Planning program resulted in  
guided land use in your State?

Yes \_\_\_\_\_ No \_\_\_\_\_

(e) What specific land use measures have come about as  
a result of Extension's Land Use Planning Program?  
(Please List)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### III. EVALUATION.

11. (a) What was or is the most outstanding single factor  
which has contributed to the success of Extension's  
Land Use Program in your State?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

(b) What single factor would you point out as a pitfall  
which should be avoided in an Extension Land Use Program?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(c) Please comment briefly on any point or points of your program which you think have not adequately been described in questions (1) through (11).

---

---

---

---

---

(d) Do you wish a copy of the information obtained from this questionnaire?

Yes \_\_\_\_\_ No \_\_\_\_\_

We could also benefit by any materials used in your Land Use Program. If you have copies to share, we would appreciate having any such materials. We are particularly interested in outlines of your program, guidelines for organizing land use study, materials prepared for study discussion, etc. These materials should be sent to:

Dr. William J. Kimball  
Extension Leader  
Resource Development Department  
Natural Science Building  
Michigan State University  
East Lansing, Michigan 48823

/ksg  
July 26, 1966

## APPENDIX B

### QUESTIONNAIRE RESPONSE CODING SYSTEM

(The responses to the instrument for obtaining data on the role of the Cooperative Extension Service in land use programs were recorded on the instrument. These data were then coded according to the following coding system and incorporated on punch cards for computer analysis.)

Card Column	Value	Meaning
1		Blank
2		Years during which a land use program was a part of the Extension Service effort
	1	1963 - 1966
	2	1959 - 1962
	3	1955 - 1959
	4	No Answer
3		Reasons for beginning a land use program
	1	Requests from local citizens study groups
	2	Requests from elected bodies
	3	Conflicts in land uses recognized by Extension leaders
	4	Combination of 1 and 2
	5	Combination of 1 and 3
	6	Combination of 2 and 3
	7	Combination of 1 and 2 and 3
	9	None of above or no answer
4-5		The goals of Extension land use programs
	1	A basis for establishing zoning regulations
	2	Citizen education and community development
	3	Education of local elected or appointed officials
	4	A basis for future community planning
	5	Combination of 1 and 2
	6	Combination of 2 and 3
	7	Combination of 2 and 4
	8	Combination of 1 and 2 and 4
	9	Combination of 2 and 3 and 4
	10	Combination of 1 and 2 and 3 and 4
	99	None of above or no answer

Card  
Column

On what area basis has land use study been undertaken in your state?

- |     |   |
|-----|---|
| 6   | County or local level?  |
| 1   | Yes   |
| 9   | No or no answer   |
| 7   | Regional level?   |
| 1   | Yes   |
| 9   | No or no answer   |
| 8   | State level?  |
| 1   | Yes   |
| 9   | No or no answer   |
| 9   | Area level of involvement of "Citizen study groups" in land use study                 |
| 1   | Local level   |
| 2   | Regional level  |
| 3   | State level   |
| 4   | Combination of 1 and 2  |
| 5   | Combination of 1 and 3  |
| 6   | Combination of 2 and 3  |
| 7   | Combination of 1 and 2 and 3  |
| 9   | None of above or no answer  |
| 10  | Area level of involvement of "Elected or appointed planning bodies" in land use study |
| 1-9 | Same as for "Citizen study groups"- Column 9  |
| 11  | Area level of involvement of "Consultant or Consulting firm" in land use study        |
| 1-9 | Same as for "Citizen study groups"- Column 9  |
| 12  | Area level of involvement of "State technical committee" in land use study            |
| 1-9 | Same as for "Citizen study groups" - Column 9   |



Card  
Column

- 13                   Area level of involvement of "Government body"  
in land use study
- 1-9                Same as for "Citizen study groups" - Column 9
- 14-15             Methodology of group involvement in land use  
study at the local level
- 1                Citizen study groups
- 2                Elected or appointed planning commissions
- 3                Consultant or consulting firm
- 4                State technical committee
- 5                Government body
- 6                Combination of 1 and 2
- 7                Combination of 2 and 3
- 8                Combination of 2 and 4
- 9                Combination of 1 and 2 and 3
- 10               Combination of 1 and 3 and 5
- 11               Combination of 1 and 2 and 3 and 4
- 12               Combination of 1 and 2 and 3 and 4 and 5
- 99               None of above or no answer
- 16-17             Methodology of group involvement in land use  
study at the regional level
- 1                Citizen study groups
- 2                Elected or appointed planning commissions
- 3                Consultant or consulting firm
- 4                State technical committee
- 5                Government body
- 6                Combination of 1 and 2
- 7                Combination of 1 and 4
- 8                Combination of 2 and 5
- 9                Combination of 3 and 4
- 10               Combination of 1 and 2 and 3
- 11               Combination of 1 and 2 and 4
- 12               Combination of 1 and 2 and 3 and 4 and 5
- 13               Combination of 2 and 3
- 99               None of above or no answer
- 18                Methodology of group involvement in land use  
study at the state level
- 1                Elected or appointed planning commissions
- 2                Consultant or consulting firm
- 3                State technical committee
- 4                Government body

Card  
Column

- 5 Combination of 2 and 4
- 6 Combination of 3 and 4
- 7 Combination of 3 and 5
- 8 Combination of 1 and 3 and 5
- 9 None of above or no answer

Has Extension's land use study program resulted in an inventory of the land use situation?

19 At the state level?

- 1 Yes
- 9 No or no answer

20 At the regional level?

- 1 Yes
- 9 No or no answer

21 At the local level?

- 1 Yes
- 9 No or no answer

On what area basis has land use education been undertaken in your state?

22 County or local level?

- 1 Yes
- 9 No or no answer

23 Regional level?

- 1 Yes
- 9 No or no answer

24 State level?

- 1 Yes
- 9 No or no answer

Card  
Column

- 25                   Area level of involvement of "Staff members of the Extension Service" in land use education programs
- 1            Local level
  - 2            Regional level
  - 3            State level
  - 4            Combination of 1 and 2
  - 5            Combination of 1 and 3
  - 6            Combination of 2 and 3
  - 7            Combination of 1 and 2 and 3
  - 9            None of above or no answer
- 26                   Area level of involvement of "Citizen groups" in land use education programs
- 1-9           Same as for "Staff members of the Extension Service" - Column 25
- 27                   Area level of involvement of "Elected or appointed planning commissions" in land use education programs
- 1-9           Same as for "Staff members of the Extension Service" - Column 25
- 28                   Area level of involvement of "All the people" in land use education programs
- 1-9           Same as for "Staff members of the Extension Service" - Column 25
- 29-30           Target audience for Extension land use education programs at the local level
- 1            Extension Service staff
  - 2            Citizen groups
  - 3            Elected or appointed planning commissions
  - 4            All the people
  - 5            Combination of 1 and 2
  - 6            Combination of 2 and 3
  - 7            Combination of 2 and 4
  - 8            Combination of 1 and 2 and 3
  - 9            Combination of 2 and 3 and 4
  - 10           Combination of 1 and 2 and 3 and 4
  - 99           None of above or no answer

Card  
Column

31-32                    Target audience for Extension land use education programs at the regional level

- 1            Extension Service staff
- 2            Citizen groups
- 3            Elected planning commissions
- 4            All the people
- 5            Combination of 1 and 2
- 6            Combination of 1 and 4
- 7            Combination of 2 and 3
- 8            Combination of 2 and 4
- 9            Combination of 1 and 2 and 3
- 10          Combination of 1 and 2 and 4
- 11          Combination of 2 and 3 and 4
- 12          Combination of 1 and 2 and 3 and 4
- 99          None of above or no answer

33                      Target audience for Extension land use education programs at the state level

- 0            Extension Service staff
- 1            Citizen groups
- 2            Elected or appointed planning commissions
- 3            All the people
- 4            Combination of 0 and 1
- 5            Combination of 0 and 2
- 6            Combination of 1 and 2
- 7            Combination of 0 and 2 and 3
- 8            Combination of 0 and 1 and 2 and 3
- 9            None of above or no answer

34                      Area level of training programs for "The Extension Service" in land use programs

- 1            Local level
- 2            Regional level
- 3            State level
- 4            Combination of 1 and 2
- 5            Combination of 1 and 3
- 6            Combination of 2 and 3
- 7            Combination of 1 and 2 and 3
- 9            None of above or no answer

35                      Area level of "Mass media" use in land use education programs

- 1-9          Same as for the "Extension Service" -  
                 Column 34

Card  
Column

- 36                   Area level of "Workshops with elected or appointed bodies" in land use education programs
- 1-9                Same as for the "Extension Service - Column 34
- 37                   Area level of "Citizen study discussion groups" in land use education programs
- 1-9                Same as for the "Extension Service - Column 34
- 38                   Area level of use of "Publications" in land use education programs
- 1-9                Same as for the "Extension Service - Column 34
- 39-40              Educational tools or methods used to communicate the land use education message at the local level
- 1                   Training programs for AES staff
- 2                   Mass media
- 3                   Workshops with planning body members
- 4                   Citizen study groups
- 5                   Publications
- 6                   Combination of 2 and 4
- 7                   Combination of 2 and 5
- 8                   Combination of 3 and 4
- 9                   Combination of 4 and 5
- 10                  Combination of 1 and 2 and 3
- 11                  Combination of 1 and 2 and 4
- 12                  Combination of 1 and 2 and 5
- 13                  Combination of 1 and 3 and 4
- 14                  Combination of 1 and 4 and 5
- 15                  Combination of 2 and 3 and 5
- 16                  Combination of 2 and 4 and 5
- 17                  Combination of 1 and 2 and 4 and 5
- 18                  Combination of 2 and 3 and 4 and 5
- 19                  Combination of 1 and 2 and 3 and 4 and 5
- 99                  None of above or no answer

Card  
Column

41-42

Educational tools or methods used to communicate the land use education message at the regional level

- 1 Training programs for AES staff
- 2 Mass media
- 3 Workshops with planning body members
- 4 Citizen study groups
- 5 Publications
- 6 Combination of 2 and 3
- 7 Combination of 2 and 4
- 8 Combination of 2 and 5
- 9 Combination of 4 and 5
- 10 Combination of 1 and 2 and 4
- 11 Combination of 1 and 2 and 5
- 12 Combination of 1 and 3 and 4
- 13 Combination of 1 and 3 and 5
- 14 Combination of 1 and 4 and 5
- 15 Combination of 2 and 3 and 5
- 16 Combination of 3 and 4 and 5
- 17 Combination of 1 and 2 and 4 and 5
- 18 Combination of 1 and 2 and 3 and 4 and 5
- 19 Combination of 1 and 2 and 3 and 4
- 99 None of above or no answer

43-44

Educational tools or methods used to communicate the land use education message at the state level

- 1 Training programs for AES staff
- 2 Mass media
- 3 Workshops with planning body members
- 4 Citizen study groups
- 5 Publications
- 6 Combination of 1 and 2
- 7 Combination of 1 and 5
- 8 Combination of 2 and 5
- 9 Combination of 3 and 5
- 10 Combination of 1 and 2 and 5
- 11 Combination of 2 and 3 and 5
- 12 Combination of 1 and 2 and 3 and 5
- 13 Combination of 1 and 2 and 4 and 5
- 99 None of above or no answer

45

Has Extension's land use education program resulted in:

- 0 No change in citizen awareness
- 1 Little change in citizen awareness

Card  
Column

- 2        Some change in citizen awareness
- 3        Very much change in citizen awareness
- 9        None of above or no answer

On what area basis has land use planning been undertaken in your state?

46                    County or local level?

- 1        Yes
- 9        No or no answer

47                    Regional level?

- 1        Yes
- 9        No or no answer

48                    State level?

- 1        Yes
- 9        No or no answer

49                    Area level of involvement of "Citizen study groups" in land use planning

- 1        Local level
- 2        Regional level
- 3        State level
- 4        Combination of 1 and 2
- 5        Combination of 1 and 3
- 6        Combination of 2 and 3
- 7        Combination of 1 and 2 and 3
- 9        None of above or no answer

50                    Area level of involvement of "Consultants or consulting firms" in land use planning

- 1-9       Same as for "Citizen study groups" - Column 49

51                    Area level of involvement of "Elected or appointed planning commissions" in land use planning

- 1-9       Same as for "Citizen study groups" - Column 49

Card  
Column

- 52                   Area level of involvement of the "Extension Service" in land use planning
- 1-9               Same as for "Citizen study groups" - Column 49
- 53                   Area level of involvement of "Elected groups" in land use planning
- 1-9               Same as for "Citizen study groups" - Column 49
- 54-55              Persons or groups involved in land use planning programs at the local level
- 1               Citizen study groups
- 2               Consultants or consulting firms
- 3               Elected or appointed planning commissions
- 4               Extension Service
- 5               Elected groups
- 6               Combination of 1 and 2
- 7               Combination of 1 and 4
- 8               Combination of 1 and 2 and 3
- 9               Combination of 1 and 3 and 4
- 10              Combination of 1 and 4 and 5
- 11              Combination of 3 and 4 and 5
- 12              Combination of 1 and 3 and 4 and 5
- 13              Combination of 2 and 3 and 4 and 5
- 14              Combination of 1 and 2 and 3 and 4 and 5
- 15              Combination of 1 and 2 and 3 and 5
- 99              None of above or no answer
- 56                   Persons or groups involved in land use planning programs at the regional level
- 1               Citizen study groups
- 2               Extension Service
- 3               Citizen study groups and consultants
- 4               Combination of 1 and 2
- 5               Combination of 2 and elected or appointed planning commissions
- 6               Combination of 1 and 2 and elected or appointed planning commissions and elected groups
- 7               Combination of 2 and consultants and planning commissions and elected groups
- 8               Combination of 1 and 2 and planning commissions and Extension Service and elected groups



Card  
Column

	0	Combination of 1 and consultants and planning commissions	
	9	None of above or no answer	
57		Persons or groups involved in land use planning programs at the state level	
	1	Elected or appointed planning commissions	
	2	Extension Service	
	3	Combination of 1 and 2	
	4	Combination of 2 and consultants or consulting firms	
	9	None of above or no answer	
58		Has Extension's land use planning program resulted in guided land use in your state?	
	1	Yes	
	9	No or no answer	
59-78		Blank	
79-80		State	
	01	Georgia	15 Wisconsin
	02	Connecticut	16 Nebraska
	03	Alabama	17 South Dakota
	04	Missouri	18 Indiana
	05	Kentucky	19 New Hampshire
	06	Maryland	20 Illinois
	07	Utah	21 Vermont
	08	New York	22 Iowa
	09	Hawaii	23 Ohio
	10	Nevada	24 Washington
	11	California	25 Pennsylvania
	12	New Mexico	26 Massachusetts
	13	Virginia	27 Delaware
	14	North Carolina	28 Oregon