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LAND USE PLANNING AND POLICY IN THE SOUTH*

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INTRODUCTION

It has become abundantly clear this nation is confronted with a set of issues regarding allocation and use of land resources which present profound challenges to agricultural economists as well as all citizens. The ability of existing institutions to adequately deal with land use policy questions is being increasingly questioned. The theoretical causes of market failure in land policy and alternatives to the market have been dealt with extensively in the literature and will not be repeated here. The purpose of this paper is to comment on research and educational programs and needs in land policy and planning with particular reference to the South.

The land use problem is a resource allocation problem, something familiar to all economists.¹ Land is one of many resources capable of many uses and subject to demand from many different individuals or groups. Conflicts exist between uses, between values and between points in time. These conflicts must all be resolved in some manner in the process of allocating the resource. Decisions about how land is to be allocated among alternative uses are basically the same regardless of the institutional mechanism chosen. Allocation of any resource requires an objective function(s), criteria and standards by which performance is to be judged, and institutions for carrying out the allocation and distribution of costs and benefits. Every allocative decision must address

the questions of what is to be allocated, to what uses, and who is to benefit and who is to lose.

To date, land policy discussions have been dominated by the "how to do it" question without adequate consideration of the problems of externalities, multiple publics, multiple goals and the uneven distribution of costs and benefits under various market and non-market approaches. The questions about what is to be done, how much is to be done, for whom it is to be done, by whom, why and when it is to be done, or should it be done at all, appear to have received little attention. But, in our opinion, these, not "how to do it," are the central questions. In fact, they must be considered as well as the "how to do it" questions with which planners and policy makers sometimes become obsessed.

If this view of the central issues in land use policy is correct, we are then led to ask, "What is being done in land use research and extension, particularly in the South, to provide insights in the evaluation of resources, problems and possible solutions" and to answer the what, why and whom questions?

REVIEW OF LAND USE RESEARCH

For the past two years, the authors have been engaged in a project of the Southern Rural Development Center attempting to inventory and evaluate research and extension activities in land use

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¹ Allocation is used to refer to the entire process by which decisions are made and implemented regarding resource use, and the distribution of gains and losses derived from their use. The fact that land possesses characteristics which make efficient allocation difficult makes it no less a resource allocation problem.

issues.² In such an undertaking, it is virtually impossible to inventory and evaluate all research. However, several hundred publications, educational programs and materials and research project reports have been summarized and reviewed by the authors. One objective of the project is to point out areas of strengths and gaps in our research and information base. While the inventory has been largely completed, it should be emphasized that evaluative statements are those of the authors and reflect subjective judgments. The following statements briefly highlight some of the results.

In reviewing approximately 350 publications, primarily papers, journal articles, research bulletins and extension publications which have appeared in the past 10 years, several things are striking. Of major importance is the fact that very little empirical research has been reported by economists on the general topic of land use policy. It seems fair to say that most publications have not provided a great deal of information which can be directly used to enlighten public policy participants. There are certain areas in which we seem to have no more, and in some cases less, useful information than we did several decades ago. It would appear that agricultural experiment stations have not yet invested the necessary resources to generate the kind of information which is becoming increasingly crucial if we are to make enlightened public policy. Space permits only a cursory look at some of the issues about which a considerable amount of useful information has been generated and others in which little has been done.

Real Property Taxation and Local Government Finance

Taxation, police power and eminent domain are powers held by the state which can be and are used to exercise a degree of public control over land use. By tradition real property taxation has been used primarily as a source of local government revenue. Its role in influencing land use patterns has usually been a secondary concern. In recent years, however, the use of real property taxation as a public policy instrument for influencing land use has received much public attention. The most common use in this regard has been adoption of legislation permitting certain lands used for specific purposes to be taxed at their value in use, rather than at full market value.

While far too little research information on the effects and effectiveness of such approaches have been forthcoming, this is probably the area in which economists have generated the most generalizable

results. A number of excellent studies, including several in the Southern Region, have examined the implementation and effects of various differential assessment schemes [21, 11, 24, 22, 3, 12, 4, 17, 6]. While the research results have been mixed with regard to the effectiveness of use-value assessment in preserving agricultural and open space land, there is general consensus that this tool by itself will not be effective in changing land use patterns over any extended period of time [12, 4]. Most state preferential assessment laws include an objective of improving the tax equity, which usually means shifting the relative tax burden away from farmers. If this is an objective of society, preferential assessment can be judged to be somewhat effective. What is now well known is the magnitude and distribution of the tax shifting and its effects on the quantity and quality of local government services. Since preferential assessment laws and their implementation vary greatly between states [4], the distribution of the benefits and costs of such programs is difficult to generalize. Some studies have concluded that the benefits have gone to smaller lower income farmers, while other studies have found evidence contrary to this [13, 17, 12]. Much more work is needed to fully document likely effects of such programs, but this appears to be an area in which economists are well on the way to providing highly useful information. At least five agricultural economics departments in the South have research underway in this area.

Preservation of Prime Agricultural Lands

There are at least two areas of concern with respect to preservation of prime agricultural land: (1) there is no generally accepted definition of prime agricultural land among physical and social scientists. It is clear that a definition based solely on physical factors would be particularly useful and could prove harmful in attempting to develop public land policies which promote efficient uses of land [14, 27]. (2) As for other issues, agricultural economists can play a useful role in the debate over prime lands by focusing research on the economic implications of policy proposals, including the "why," "how," "whom," "where" and "how much" type of questions. Work in production and farm management stressing the importance of production costs, market prices and demand could bring a degree of enlightenment to this topic which is badly needed in public policy debates. Those who advocate "preserving all prime agricultural land" appear to be ignorant of the role of relative costs and prices in determining how much land will

²"Inventory and Appraisal of Research Concepts, Methods, and Results in Land Use Issues," Southern Rural Development Center, Mississippi State, Mississippi.

be devoted to the production of different agricultural commodities. It can perhaps be demonstrated that market prices would do the best job of preserving "prime" lands for agricultural use, yet this knowledge does not appear to have penetrated very deeply into those who are responsible for developing plans for preserving "prime" lands.

Several policy instruments have been proposed and adopted to achieve some degree of preservation of prime agricultural lands. New York has pioneered the concept of agricultural districts, and several other states have begun to adopt similar legislation [7]. Such other concepts as transferrable development rights, purchase of development easements, and outright public purchase and lease-back arrangement of agricultural land are being considered. These may prove useful, but again, the research to determine their effectiveness and implications is just beginning and is far from sufficient to make informed policy decisions [8, 7, 26, 23, 10].

Ownership and Control of Resources

Except for isolated case studies, very little is known about who owns and exercises entrepreneurial control over our land resources. In fact, the land information system is in such a state that it is extremely difficult to determine ownership, much less control. As Wunderlich has stated, "public though they may be in a legal sense, the public land records are not in fact a generally accessible display of land, interests, and interest holders" [31, p. 5]. He further points out that public land records are not well suited for obtaining information on the ownership status of a whole jurisdiction. If we hope to go very far in analyzing workings of the land markets, impacts of alternative public policies, or current and future structure of agriculture and the location of population and economic activity with its accompanying resource demands, it will be necessary to know much more about ownership and control of land resources.

Except for the interest in foreign ownership of U.S. land, little research interest in ownership questions or improvement of land data systems has been evident among economists in recent years. The work of Wunderlich [30, 32] and others in the Economic Research Service has adequately demonstrated the need for and usefulness of such research.³ However, in the Southern region, Tennessee has the only listed project which focuses directly on the ownership question (Table 1).

³ERS in conjunction with the Soil Conservation Service is undertaking a national resource inventory study which will collect ownership data as well as other information.

TABLE 1. AGRICULTURAL ECONOMICS RESEARCH PROJECTS IN LAND USE POLICY, SOUTHERN REGION, BY STATE

State	Number of Projects by Area ^a								Total	
	1	2	3	4	5	6	7	8		
Alabama						1				1
Arkansas	1									1
Florida										0
Georgia	2									2
Kentucky										0
Louisiana										0
Mississippi										0
North Carolina		1		1						2
Oklahoma			1							1
South Carolina	1			1						2
Tennessee					1	2				3
Texas			2	1						3
Virginia	1	1								2
TOTAL	5	2	3	3	1	3	0	0		17

SOURCE: CRIS Survey, 1976.

^aColumn headings refer to categories as used in Table 2.

Markets in Land

Closely related to the ownership question is an amazing lack of knowledge regarding the operation of private markets in land. The nature of land and its services obviously makes the functioning of land markets somewhat different from other factor markets. Nevertheless, even with the increasing public control over land, most decisions are and will likely continue to be made by private actors in the marketplace. Economists may be missing the boat here, but certainly the localized interest groups are not. The Second National Conference on Rural America held in Des Moines, Iowa, in 1976 included several general sessions on land related topics, including two related to operation of the land market.

Several aspects about land markets are of crucial importance and are poorly understood and under-researched. Specifying current and future supply and demands for alternative expectations of participants in land markets is not well understood, and very little research by agricultural economists is underway. In general, the theory of rent and its implication for distribution is one of the most difficult and least developed aspects of economics. Nowhere is this

weakness more evident than in the land use policy arena. If policies are to be designed to influence private landowners decisions, then it seems imperative that the factors affecting landowners decisions and the decision process be better understood [25].

Likewise, determinants of agricultural land prices, including the effects of speculative activity and the effects of increasing land prices on the stability of agriculture, are areas about which we have too little knowledge.

Current Research in the South and Nation

Much land policy research is conducted by disciplines other than agricultural economics. We would expect that fields such as agronomy, forestry and other agricultural related disciplines would be heavily involved since information from the physical and biological sciences is essential to sound land use policy. Likewise, legal scholars, political scientists, planners, sociologists and engineers provide essential information. This brief survey made no attempt to determine the total research effort devoted to all aspects of land use policy and planning. Rather, the results of a CRIS survey of current research at experiment stations dealing directly and primarily with land use policy, economics and planning are cited as the best indicator of research by agricultural economists in this area. For a variety of reasons, CRIS does not reflect all work going on in agricultural economics departments. These results also do not reveal the level of scientific effort. The CRIS search in August 1976 resulted in 90 project listings. It was determined by the authors that seven of these did not deal directly with land use policy and planning. A somewhat arbitrary categorization of these projects is listed in Table 2. Judgments of what constituted the major thrust of the research project was based on information presented on the CRIS form.

The Southern region has 17 active projects, or about 20 percent of total projects nationwide (Table 2). The largest number of the Southern projects (five) deal largely with land taxation and local government finance. Three projects focus primarily on land values and markets. It is interesting that no projects in the region focus on what we call planning, models and techniques, the largest single area of concentration nationwide. If we are to make sense out of the public debate over land use policy and planning, the skills of economists must be used to better advantage than is currently being done. More good hard conceptual and empirical research is desperately needed, and the

TABLE 2. RESEARCH PROJECTS IN LAND USE POLICY FOR UNITED STATES AND THE SOUTH, BY MAJOR THRUST OF PROJECT, 1976

Primary Thrust of Project	Number of Projects ^a		Percentage of Total Southern Projects	Percentage of U.S. Projects	
	South	U.S.		South	Non-South
(1) Taxation, Public Finance, Use Value	5	13	28	38	62
(2) Impacts of Alternative Policies on Land Use	2	10	12	20	80
(3) Land Values, Market Prices	3	5	18	60	40
(4) Theory, Conceptual Framework, Comprehensive Policy	3	18	18	17	83
(5) Ownership, Tenure	1	6	6	17	83
(6) Regional Development, Non-Agricultural Demands	3	8	18	37	63
(7) Techniques and Models for Comprehensive Planning	0	19	0	0	100
(8) Unclassified	0	4	0	0	100
TOTAL	17	83	100	-	-

SOURCE: CRIS search, August 1976.

^aWhere several states have contributing projects to a Regional project, each states project is listed as a separate project. The South has no regional projects in this area.

results must somehow be communicated to those who are making land use policy decisions.

REVIEW OF LAND USE EXTENSION

The Cooperative Extension Service has conducted educational programs in land use policy and planning for at least three decades. Almost every state has made some effort in this public issue at one time or another. Extension specialists in agricultural economics in many states have the prime responsibility of conducting state-wide educational programs; although in other states, extension personnel are not involved to any appreciable degree.

A national survey of extension specialists with primary responsibilities in land use was conducted by the authors in summer of 1976 to ascertain the nature of the land use programs in various states and the characteristics of the individuals involved.⁴ Ninety-six usable responses were received, twenty-four from the South. About half of the respondents were agricultural economists with Ph.D.s, the remainder being drawn from other agricultural sciences, sociology, education, planning and law. About half

⁴A more detailed report of this survey will be published in 1977 by the Southern Rural Development Center as a product of the authors' project in land use issues.

were employed as full-time extension personnel and most had considerable average experiences in land use, 9.3 years experience for the U.S. and 7.5 years for the South.

What are our extension colleagues up to? Are they addressing the "how to" issues or the other issues we conclude are more important? The information obtained in the survey has been summarized in five areas: approaches, topics, clientele, colleagues and publications. The role of extension specialists as expressed by them has been analyzed. Based on this information, a few generalized evaluative comments relating to conclusions drawn in other sections of this paper are offered.

Approaches

There are, of course, as many approaches to land use education as there are specific land use problems across the U.S. However, four general approaches might encompass the majority of specific possibilities: 1) Citizen involvement and group organization; 2) education: general awareness of land use policy and planning; 3) education: specific land use policy topics; and 4) applied research and analysis.

Table 3 summarizes survey results on the utilization of these four basic approaches. In both the South and the U.S., the most often utilized approach is general awareness education—72% of all respondents in the U.S. and 87% in the South listed this as first or second in importance. Citizen involvement and specific topics education appeared fairly equal in importance while applied research was a distant last.

For purposes of the survey, the public policy educational process was summarized in four stages: 1) citizen awareness (identification of problems, alternatives, and so forth); 2) data collection (social, economic, physical); 3) evaluation of alternatives and

TABLE 3. LAND USE EDUCATION APPROACHES IN THE U.S. AND SOUTHERN REGION, 1976

Approaches	Approaches Ranking First or Second in Importance			
	U.S.		South	
	Number	Percent	Number	Percent
General Awareness	65	72	20	87
Citizen Involvement	50	64	9	53
Specific Topics	52	60	14	64
Applied Research	25	35	4	31

SOURCE: Infanger, Craig L. and Leon E. Danielson, "Land Use Education Survey," (tentative title), a report to be published by the Southern Rural Development Center, 1977.

specific approaches; and 4) implementation of state and local plans and action programs. Considering the cyclical nature of policy education, the South appears to be focusing on the early stages of that cycle to a greater extent than is the rest of the U.S. For instance, the information summarized in Table 4 shows a higher concentration on the first two stages in the South (91% and 56%, respectively) with corresponding lesser concentration on the last two stages compared to the rest of the U.S. Implementation of plans and action programs ranked last in both the U.S. and the South.

Are these findings consistent with our earlier conclusions regarding the proper issues in land use policy? If educational awareness includes a discussion of the what, who, how much and similar issues other than "how to" then they probably are. However, if awareness is primarily related to current trends, problems and the mere existence of alternative market and public policy measures, then educational efforts are only going halfway toward providing citizens with the information needed to make informed land use decisions. Information will still be needed on the what, who, how much, etc. issues. In all fairness, this later step can be taken in an educational program only after, or at the same time, trends, problems and alternatives are considered. Thus, while the timing of the two phases of awareness is of critical importance, both are essential in the longer run. The real question, of course, is whether research information is available to enable awareness programs to concentrate on policy impacts.

Topics

Within the framework of general approaches, there was a diversity of specific topics on which the extension educators concentrated their efforts. The

TABLE 4. STAGE OF EDUCATIONAL EFFORT IN U.S. AND SOUTHERN REGION, 1976

Approaches	Stages Ranking First or Second in Importance			
	U.S.		South	
	Number	Percent	Number	Percent
Citizen Awareness	62	78	20	91
Evaluation of Alternatives	47	63	10	56
Data Collection	37	55	10	67
Implementation	29	45	5	42

SOURCE: Infanger, Craig L. and Leon E. Danielson, "Land Use Education Survey," (tentative title), a report to be published by the Southern Rural Development Center, 1977.

clearly most popular specific topic in both the U.S. and the South was "impacts of land use policies." Perhaps this is an indication that awareness does, in fact, include coverage of some of the who, what, how much and related issues. However, it is certainly an interesting result given the paucity of research on these issues and the low rank of applied research in the "extension approach." If, as concluded earlier, the research in land use has been inadequate, and most assuredly on the subject of consequences and impacts of land use policies, it has, then what is extension "extending" in their most popular topic area? If they are doing a good job here, and we have every reason to suspect they are, then the information must be coming from somewhere other than the reported research in agricultural economics.

Ranking below "impacts of land use policies" were topics such as: 1) alternative control techniques, 2) preservation of farmland, 3) federal-state legislation, 4) impacts of growth and 5) citizen involvement (Table 5). Respondents for both the U.S. and the South were similar in their ranking here. While these are not unexpected, what was not ranked very highly is: "property rights" and "protection of farm opera-

TABLE 5. TOPICS OF CONCENTRATION FOR LAND USE EDUCATION PROGRAMS IN THE U.S. AND SOUTHERN REGION, 1976

Topic	U.S.		South	
	Percentage Ranking Most Important	Percentage Ranking in Top Four	Percentage Ranking Most Important	Percentage Ranking in Top Four
Impacts of land use policies	23	59	21	62
Alternative land use control techniques	16	58	12	54
Preservation of prime farmland	7	44	4	42
Federal/State legislation	4	38	8	50
Analyzing impacts of growth	11	38	12	12
Citizen involvement	17	38	12	38
Land taxation	4	28	8	25
Property rights	1	25	12	21
Physical planning	5	20	4	21
Federal vs. state vs. local controls	2	20	4	29
Demand for services and growth	3	18	4	8
Soil survey data	8	14	17	29
Critical areas	4	10	4	12
"Protection of farms from nuisance suits"	2	10	0	8
Urban land use	1	7	0	12
Other	4	6	4	12

SOURCE: Infanger, Craig L. and Leon E. Danielson, "Land Use Educator Survey," a report to be published by Southern Rural Development Center, 1977.

tions from nuisance suits." If, as many people suggest, the real issues in land use resolve to redistribution of rights in land, why are these ranking so low? Nationally, "property rights" as a specific topic in land use education was ranked "most important" by only 1% of the educators and ranked in the top four topics for only one-fourth.

When asked "Why have you addressed the above topics?" not quite one-half responded that it was "professional choice as the most relevant issue." A somewhat smaller fraction cited "clienteles requests" as the reason.

Clientele

Response to questions about clientele served in land use programs also produced a surprising result: farmers ranked at or near the bottom for both the U.S. and the South. This has to be unexpected given the nature of the academic environment in which we work and the common denominator in the issue involved. Nevertheless, farmers ranked behind the general public, elected and appointed officials, citizen groups, agency personnel and extension professionals. In rural areas, where much of today's effort in land use is focused, farmers and other property owners will be most affected. It would appear that they would be a logical audience for educational awareness programs of all types because of the importance of property rights to them.

When asked "Why?" about clientele groups, overwhelming response was "requests from them." Professional choice ranked a distant second, as a reason for working with the above groups. Evidently, political sensitivity of the subject and lack of time cause land use policy educational programs to be limited to those who perceive the need enough to ask for assistance. Such a method of choosing the group to be served may be pervasive but it does not necessarily assure that the most important issues will be addressed, nor that the groups most in need of education will receive it. If "requests received" continues to be the primary basis for deciding who is to be served, those receiving the services of Extension programs will not necessarily be those most in need of it or most deserving, but rather those who are most vocal and better able to make their decisions known.

Colleagues

A brief word should also be mentioned about the working colleagues in extension land use programs. The survey results indicated that extension specialists are collaborating primarily with 1) other economists, 2) planners and 3) other educators. Ranking much lower were 1) sociologists, 2) lawyers and 3) physical scientists. The "nature of the program" was the most

often cited reason for the type of collaboration pursued. As is true of research, extension land use problems tend to cut across disciplinary lines, and for effectiveness, much more collaboration with other professionals will be needed. If extension efforts are to be broader than what is popularly called "planning," it will be necessary to enlist the efforts of other agricultural colleagues.

Role of Extension and Extension Specialists

The survey also questioned the specialists' perceived role of the Extension Service in contrast to how he perceived his own role in land use education. Results showed that the perceived role of the Extension Service was heavily oriented toward education, developing awareness and providing information. However, the perceived role of the extension specialist in his land use program was more oriented toward analysis with the traditional role cited less often. This is a positive trend based upon research conclusions on key issues of land use policy, but again the question of what information is available is raised.

Publications

In a related effort, land use educational publications used in the various state extension programs have recently been inventoried and evaluated [15]. The publications were diverse in format and content. Some states put together a "package" of publications while other states publish bulletins, circulars, case study material, newsletters and leaflets.

The predominate number of publications fell into the category of "policy alternatives education" and were descriptive rather than analytical. These ranged from materials on the local planning process to explanations of present land use control techniques, to federal and state legislation, and finally proposed new planning and control techniques. Only twelve states had publications on "problem situation and perspective." This again supports the apparent broad nature of awareness programs practiced.

Implications of land use controls for agriculturalists and other groups is a topic addressed in weak fashion by the available educational literature—only two states have extension publications on this subject (North Carolina and Wyoming). No one, it seems, has come forward to attempt to illustrate the tradeoffs faced by farmers in the issue of preservation of farmland. Similarly, there is a little information in the literature about such topics as citizen involvement and redistribution of property rights under increasing state and federal controls. Only in the case of tax burdens under preferential assessment have there been studies of redistribution impacts.

The review of extension land use publications

concluded that publications from many states seem to be a response to an immediate pressing land use problem [16]. These efforts do not appear to be followed by development of a systematic set of educational materials useful with several clientele groups and over a longer period of time.

SOME CONCLUDING COMMENTS

This paper has not dealt with the issue of alternative market and non-market alternatives. We did, however, suggest that issues other than planning techniques were the important research and extension issues. Economic theory suggests reasons why markets in land may not automatically achieve socially efficient solutions. A good deal of resource economists' efforts during the last decade has been spent demonstrating the existence of and complications caused by externalities and public goods in land use decisions. The level of awareness of this phenomenon is much higher now than 10 years ago. This might be judged to be a measure of success.

There is an unfortunate aspect of this increased recognition of market failure, and in many ways it appears likely to have fairly tragic effects. Public planners and interest groups have latched on to the economists' demonstration of market imperfections in the land use area, and have made a rather dangerous jump to the position which asserts need for and efficiency of non-market (political) institutions, as though recognizing that markets "fail" implies that alternatives to the market do not "fail." We know that conditions required for markets to function perfectly are rarely, if ever achieved; what is often forgotten is that conditions to assure that planning is in any sense "optimal" may be even more demanding than competitive market requirements. In short, if we apply performance criteria to market and non-market land allocative institutions, we are likely to find that they both "fail" to insure a socially efficient solution. So, we may be left with the question of which is to be preferred. Such a question cannot be answered within the framework of positive economics. It does seem appropriate to say that "socially efficient" solutions to land allocation problems are not guaranteed by either market or non-market approaches. It can be demonstrated that non-market decisions are at least as likely, and often more likely, to diverge from efficient solutions [5]. Political majorities, when not restrained by price, can be expected to impose inefficient solutions to allocation issues simply because they perceive net gains to themselves at the expense of other members of society. That is, political majorities are not required to bear the costs of inefficiencies, or costs imposed

on others. Hence, the statement that choosing between market and non-market decisions may involve choosing between two different sets of externalities is evolved.

If policy makers are serious about developing a land use policy that serves the public interest, the what, why, who, when and related questions must be answered as well as the "how to" question. Such information would be useful in clarifying goals and objectives and preclude making a decision regarding the approach to be taken before the impacts are fully evaluated. As Barlow states "if more of us had the time to assess and evaluate our resources, problems and possible solutions—to answer the question of why—the policy formation process would be greatly simplified" [2].

Yet, results of the surveys discussed in this paper are cause for concern that information required to respond to these more difficult questions is not now available in published form and further, may not be

forthcoming in the near future. Clearly, the interest in and the need for this more analytical information by extension specialists and the public has been documented in our national survey.

It is hoped that required applied and theoretical research will be available before all land policy decisions are made. However, until it is, it would appear that extension specialists should proceed somewhat cautiously. In so doing, it might be useful to concentrate on teaching the basic concepts and approaches of economics to groups concerned with land use policy. That is, the payoff to teaching the approach of economics and the basic concepts necessary to formulate rational policy decisions is likely to be higher than the payoff for helping people decide the best way of doing something which possibly should not be done at all. It should be recognized, however, that decisions must be made and people will not wait forever for the research results which can help in formulating more rational land use policies.

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