Land Utilization

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AN EVALUATION OF ALTERNATIVES FOR LAND USE PLANNING

by

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was "conquer and occupy". The objectives were to open up the land, establish an incontestable claim to ownership and exploit the resources. As much land as possible was moved into private ownership to create a large class of private property owners who were thought to be the cornerstone of democracy. Property rights were considered nearly absolute and owners could, and did, use and abuse land.

During the nineteenth century increasing awareness of the country's natural resource limitations resulted in the withholding of some parts of the public domain. Some national parks and national forests were created in the latter half of the century, setting a pattern that has continued to the present. Privately owned land continued to be viewed as a commodity to be bought and sold, and used or abused.

In the early part of the twentieth century, zoning was initiated in urban areas. It was based on recognition of a legitimate public interest in the use of privately owned land. Zoning has since been extended to rural areas. The use of easements and (recently) development rights emerged as a means of securing publicly desired uses of privately owned land. A variety of programs came into use where public funds were used to purchase desired land use practices, principally conservation practices, on privately owned land. Legislation having powerful implicit land use policies was enacted (Agricultural Acts, Environmental Protection Act, etc.).

In the past few years several states have adopted legislation placing close restrictions on development and/or use of privately owned land (Iowa, Hawaii, Maine, Vermont and others). At the national level numerous bills have been introduced in Congress that would require

the planning (and control) of the use of both publicly and privately owned land.

IMPACTS OF CONSTRAINTS ON LAND USE

In Table 1 the impacts of alternative levels of constraints on land use are displayed. This table displays the probable impacts of increasing the extent of land use controls. The left column portrays a hypothetical situation with no public intervention in land use decisions and all land with economic value is privately owned. Columns two through seven assume the existing mixture of private and public ownership of land. The extent of constraints on private property owners' decision-making increases from none in column two to that which might result from guidelines developed under the provisions of Senate Bill 268 or House Resolution 10294.

Entries in the row labeled "Societal" reflect a conception of the societal view on land use issues. It is somewhat analogous to a weighted sum of the other rows--economic, political, environmental, etc.-- plus all other factors not explicitly recognized. As we move across the first row, the relevant geographic area changes from that associated with the individual property owner to that of the local, local and state, and national decision-making units.

Entries in the cells of Table 1 are based upon a set of assumptions thought reasonably descriptive of actual conditions influencing land use. They include:

(1) Economic forces (the desire for income or wealth, or both) are the primary motivation influencing land use decisions.

Table 1: Impacts of alternative levels of constraints on land use

Level of Constraints / Impacts	No constraints -- all land with economic value privately owned	Existing mixture of private and public land ownership applies					
		Existing legal institutions and taxation patterns but excluding land use regulations	Enabling legislation for regulation by local government	Regulation by local government within state guidelines	Regulation by state and local government	Regulation by state government	National land use legislation adopted with regulations by state and local government within federal guidelines
SOCIETAL	Economic might makes right	Economic right makes right	Local societal viewpoint influences land use	Local and state societal viewpoint influences land use	Local and state viewpoints and regulation--these may not be consistent	State societal viewpoint is dominant over local viewpoint	National societal viewpoint becomes dominant over state and local
ECONOMIC (Level and distribution of income and wealth)	Concentration of both wealth and income--high potential for investment	Accelerates concentration of income and wealth by land owners	Some redistribution within the community, with potential for large redistribution between communities	Some within community redistribution --may reduce between community redistribution	Potential for reducing between community competition for expanded investment	Potentially concentrates benefits in power centers of the state	May have profound redistribution effects between states
POLITICAL	Concentration of power due to concentration of wealth	Incentives for creating and maintaining loopholes for land owners	Makes land use regulation a local political football--political activity can directly influence land use	Widens the political arena to include state activities in setting or modifying guidelines	Widens state political arena to include both regulation and guidelines	Decision-making is removed from the local area	Concentrates power to make land use policy decisions in hands of highly urbanized states
ENVIRONMENTAL	Laissez-faire & caveat emptor	Increased incentives for both maintenance and destruction depending on economic incentives	May enhance individual's environment and local conditions	Considerable potential for enhancing environmental conditions	Considerable potential for enhancing environmental conditions as cost of increased regulations	Potential for enhancement of the environment if this does not impinge upon the power centers	Potential for enhancement and preservation of fragile areas and reduction of areas of over-concentration
POPULATION DISTRIBUTION	Continued trend toward urban concentration	Continues trend toward urban concentration	May reduce local concentrations of population, but can accelerate between community migration	May reduce incentives for between community migration	May further reduce incentives for between community migration	Could be incentives for further concentration in power centers	Potential for redistribution between states and may prevent concentrations of population in environmentally fragile areas
IMPLICIT LAND USE POLICIES (Conservation, EPA, ag commodity, HUD, irrigation, public power, etc. programs)	Support for those which are compatible with the individual land owner's interests	Continued mixed pattern of efforts e.g. irrigation development vs land retirement programs	Usually meet imposed criteria, but generally have been supportive of implicit policies by chance, not by deliberate local choice	Likely to be more supportive of national policies, especially where state and national interest coincide	Can be tied to implicit policies, but implementation will likely be difficult	Effective where state and national policies coincide--potential for conflict where state and local interests are divergent	Depends on the federal guidelines-- has potential for mutual support

(2) Political and economic forces are closely linked.

(3) Environment, population distribution and other similar concerns carry less weight in decision-making on land use than do economic factors.

Just a few highlights from the table: The relative weights of economic, political, environmental, population distribution and other forces change as we move from left to right across the table. For example, in the first two columns economic forces dominate the decisions with respect to land use. As we move right, this dominance of the marketplace in the decision-making process is reduced by the entry of other forces into the political arena with resulting modifications of the range of allowable marketplace decisions.

ATTRIBUTES OF LAND USE PLANNING MODELS

The two most frequently discussed planning models have been extracted from Table 1 and will now be examined in greater detail. These are: enabling legislation for regulation by local government (column three), and national land use legislation adopted with regulation by state and local government within federal guidelines.

In Table 2 these planning models are evaluated with respect to their probable effectiveness, efficiency, responsiveness, flexibility, etc. Also, there is recognition of the ways in which local viewpoints of planning may (and usually will) differ from regional viewpoints. Each person is a citizen of a local area and of a region, and looks at land use issues from both a local and a regional viewpoint. As is

Table 2: Attributes of top down and bottom up land use planning models as evaluated from local and regional viewpoints

Attributes of land use planning \ Planning model	Viewpoint as a citizen of: The local area — Top down (planning within national land use planning guidelines)	The local area — Bottom up (local planning under state enabling legislation)	The region — Top down (planning within national land use planning guidelines)	The region — Bottom up (local planning under state enabling legislation)
EFFECTIVENESS	Effective, but often not supported at the local level	Usually thought of as effective but does not work if strongly polarized groups are participating	Effective but often not supported at the local level	Usually cannot address regional concerns, e.g. strip mining, water use, air pollution
EFFICIENCY	Usually thought efficient, but output may be rejected by clients with resulting loss	Usually thought less efficient, but output if generated, is generally acceptable to clients	Usually thought efficient, but output may not be appropriate to regional needs	Usually thought less efficient--output, if generated, is generally acceptable to local clients but may not meet regional needs
RESPONSIVENESS (ability to meet current needs)	Responsive only if the guidelines are appropriate to the local area	Responsive if local agreement or consensus can be reached	Responsive only if the guidelines are appropriate to the region	Of doubtful responsiveness as regional needs may be ignored
FLEXIBILITY (ability to remain responsive as needs change)	Flexibility is generally quite limited	Remains flexible only insofar as the local structure remains "bottom up"	Flexibility is generally quite limited	Flexible only insofar as planning can identify and deal with issues of more than local concern
APPROPRIATENESS (suitability of response)	Appropriate responses occur more by chance than by deliberate choice	Usually thought to be appropriate but compromises may result in "paper tiger"	Appropriateness depends on the ability to influence guidelines so as to secure suitable local responses to regional problems	Probably appropriate only when local interest and regional interest are nearly the same
FAIRNESS (equality of impact within interest groups)	No certainty of fairness--arbitrary but consistent	Fairness depends upon actions of local people acting within provisions of enabling legislation and previous court decisions	Fairness across region will vary depending upon deviation from "average"--"average" person will feel minimal impact	Fairness depends upon actions of local people acting within provisions of enabling legislation and previous court decisions
EQUITY (equality of impact between interest groups)	Generally thought to be means of achieving equity, but this depends upon how closely groups resemble the norm	Equity thought to be achieved through consensus, but power actors often benefit at expense of other groups	Generally thought to be means of achieving equity but variability in the region makes this unlikely	No reason to expect equity within the region
DIRECT CITIZEN PARTICIPATION OPPORTUNITIES	Only within closely prescribed procedures, rules and regulations	Full participation except on issues of more than local significance and may have some direct impact on these more than local issues	Only within closely prescribed procedures, rules and regulations	Full participation except on issues of more than local significance and may have some direct impact on these more than local issues
INDIRECT CITIZEN PARTICIPATION OPPORTUNITIES	Through elected representatives, pressure groups and personal influence to change procedures, rules and regulations	Through elected representatives, pressure groups, personal influence to change provisions of enabling legislation	Through elected representatives, pressure groups and personal influence to change procedures, rules and regulations	Through elected representatives, pressure groups and personal influence to change provisions of enabling legislation
CITIZEN SATISFACTION WITH RESULTING LAND USE PLANNING	Limited except for pressure groups whose view prevails	Good, except when local consensus is not possible, or decisions on more than local issues may not really be satisfactory to some local groups	Depends on whether the land use plan can (and does) reflect the regional and local viewpoints	Depends on agreement between regional and local planning decisions --not acceptable if local plan is incompatible with regional needs

illustrated in the table, there is no reason to expect that the local and regional viewpoints will be the same.

Assumptions behind the entries in Table 2 include those of Table 1, plus:

(1) Planning under national land use planning legislation will be "top down" in nature in that it will be required by the federal government.

(2) Guidelines developed under national land use planning legislation will be relatively precise, complete and definitive with resulting severe restrictions on the scope of local decision-making.

(3) Local planning under state enabling legislation will be "bottom up" in that it will be carried on as a result of local iniative, and the scope of local decision-making will not be severely restricted.

(4) Attainment of a high level of citizen satisfaction is a suitable goal for land use planning.

As was true of Table 1, the entries in the various cells contain more detail than can be discussed here, but some brief observations may be in order. The last row, citizen satisfaction, is analogous to a weighted sum of all the other rows.

Entries in Table 2 indicate:

(1) From the local viewpoint: (a) The "bottom up" planning model appears to be conceptually sound, but the results don't live up to expectations. (b) The "top down" planning model appears

to be conceptually inadequate, and will, if enacted, probably fulfill that expectation.

(2) From the regional viewpoint: (a) The "bottom up" planning model is conceptually inadequate to handle issues and problems of more than local concern, and it lives up to that expectation. (b) The "top down" model handles problems and issues of more than local concern, but is conceptually inadequate to deal with diversity.

Experience with land use planning has not been notable for its good results. Ideas presented in Table 2 provide some insights into why the planning models presently being used or considered appear to be less than adequate for the problems and issues that need to be resolved.

OBJECTIVES OF LAND USE PLANNING

If we were to look at land use planning for any region, it seems that a desirable set of objectives should include:

1. Recognition and respect for property rights.
2. Preservation of the economic base.
3. Contribution to effectiveness and stability of the political system.
4. Adequate resolution of environmental issues.
5. Achievement of an improved population distribution.
6. Complementarity to implicit land use policies.

Sober consideration of the ideas contained in Tables 1 and 2 leads to the conclusion that it doesn't appear possible to attain this set of

objectives with either (or both) of the models commonly used in land use planning efforts. Reasons for this include:

1. Some of the desired outcomes are incompatable, e.g. preserving the economic base and improving environmental quality.
2. "Bottom up" planning stops at political boundaries while problems do not.
3. "Top down" planning is too inflexible to be appropriate and acceptable in a region with normal diversity.
4. Many desired outcomes are financially irrational because the present value of discounted future benefits may be negative unless the discount period is very short.
5. Current practices in land use planning set up a system of strong financial rewards to those who can "beat the game", thus providing incentives that work against effective land use control.

This is a formidable list of deficiencies in the land use planning models presently being considered or used. When considered in combination with our evident inability to attain the rather simple set of objectives listed above, it seems possible that: (a) Our present concept of the nature of land is inappropriate, and (b) our present land use planning models are inappropriate. These two issues will now be examined.

LAND AS A PUBLIC AND PRIVATE GOOD

A sizeable body of literature examining the nature of public goods and services has accumulated in recent years.[2] These writers have

described pure public goods as being: (1) produced collectively, (2) jointly supplied as they are available to all prospective users if they are available to anyone, and (3) not divisible into discrete "packagable" units amenable to purchase and sale in the marketplace. These attributes of public goods are opposite to those of pure private goods, which are characterized by being: (1) privately produced, (2) privately consumed, and (3) divisible into discrete units purchased and sold in the marketplace.

As is obvious from these brief definitions, a pure public or a pure private good is almost non-existent. Most public goods have at least some exclusion characteristics and most private goods have some externalities associated with their use.

As a private good, land is bought and sold in discrete and easily identifiable units. Non-owners can be excluded from entering upon privately owned land, but cannot be excluded from and cannot escape the public good aspects (externalities) of the use of such land.

Land is also a public good. The scenic values of land, the attractiveness of the countryside and the aesthetic aspects of the wide open spaces are all public goods. When viewed as a natural resource that is the ultimate basis of most productive activity, land cannot be anything less than a public good. No one can escape the consequences of resource depletion, loss of arable land, crowding and congestion. Land is not a pure public good as not all persons can share equally in its benefits. However, a modern technological society cannot deny that land has many of the attributes of a public good.

Efforts in land use planning (including zoning) have traditionally been rationalized as being in the public interest. In practice, most land use decisions have sought to preserve and enhance the value of privately owned land. This has occured because decision-makers have usually viewed land as a private good and ignored its public good attributes. Consequently, the public interest has usually been poorly served and effective land use planning is almost unknown. If adequate recognition is taken of land as a public good, land use planning probably should be based upon principles of public administration.

ALTERNATIVE PUBLIC ADMINISTRATION MODELS

Top Down Model

The generally accepted public administration model is the bureaucratic or "top down" model. Authority and responsibility in this model are centralized and decision-making operates through strict application of standard procedures. If these procedures are not really appropriate, the client is referred to the next higher level of bureaucracy. This model has been the typical decision-making model for handling decisions about public goods. It appears to be the model implict to national land use planning legislation.

Public Choice Model

An alternative to the traditional "top down" model is the quasi-market or public choice model.[3] The primary characteristic of this model is that it is truly "bottom up" in that:

1. Whenever possible decisions are made at the local level or by the smallest decision-making unit.
2. Only decisions that cannot be made at the local level by the smallest decision-making unit are delegated to a larger unit.
3. Decision-making units are organized around issues and problems and these communities of interest are open to all who wish to participate.
4. It provides a flexible and adaptable structure that changes as needs change.

In this model, man is assumed to be knowledgeable, but not perfectly informed, self-interested and rational. His self-interest may include an interest in the well-being of others and he considers both economic and non-economic factors having impact upon his welfare. As such, he is not the same as our traditional economic man who is usually assumed to have perfect knowledge.

Two characteristics of this model seem to merit special mention. Decision-making groups are organized around issues, not as a consequence of geographic boundaries or administrative decisions. Thus, the model provides for effective group action based on a shared interest in a problem or issue.

Participation is direct at the local level where most of the decisions are made. Insofar as citizen satisfaction is dependent upon participation, this serves to increase consumer satisfaction and improves acceptability of the land use planning. On issues having widespread impact, participation may be by representation, but the focus upon an

issue tends to assure that decisions are made on the basis of knowledgeable self-interest, not through trade-offs between unrelated issues as is common in elected governmental bodies.

CONCLUSIONS

Land use decisions made in the marketplace treat land as a private good. Zoning and land use planning as proposed in national legislation place emphasis on recognition of the public interest, but appear incapable of generating good land use decisions.

Land exhibits many of the attributes of a public good. This suggests we need a land use planning model adequate for decision-making on public goods and capable of generating land use decisions meeting reasonable criteria including citizen satisfaction. The quasi-market or public choice model appears to have these capabilities and should be seriously considered as a structure for land use planning.

Land use planning utilizing this model has potential for dealing with problems that cross civil subdivision boundaries. Important land use decisions with local, regional and national impact will be made in the decades ahead. Our ability to make satisfactory decisions will depend upon the institutional structures we create to meet these challenges. We need to use nothing less than the best possible approach in the making of those decisions.

Footnotes

[1]Ideas in this section are adapted from {3}.

[2]Sources are too numerous to cite fully. The reader is directed to {2}, {4}, {5}, {7}, {8}, {9}, and {10}, and to the extensive bibliographies of {2}, {5}, and {10}.

[3]Comprehensive summaries of the public choice model are given in {1} and {6}.

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