Incremental land-use decision making displayed by county zoning committees

Donald G. Last

Nearly 25 years ago, the Soil Conservation Society of America (since renamed the Soil and Water Conservation Society) published a policy statement on land use in its *Journal* [1970, volume 25(1):72-73] that included the following passage: "planning for land use and growth must be based on the findings of scientific study." Given this recommendation, this research-based article on zoning was prepared to encourage other Society members to share their considerable knowledge related to "the science and art of good land (and water) use." Members of the Soil and Water Conservation Society—now as well as then—are uniquely well qualified to help government officials design and implement programs that assure wise land use.

Sampson observed that decisions on the use of land often have secondary effects that are difficult, if not impossible, to predict. French argued that local government officials need to consider the environmental impacts of their land-use decisions.

Local units of government influence land use through the application of zoning ordinances and by decisions they make to rezone particular land parcels. Throughout the nation zoning decisions have important environmental and economic effects. A land parcel's zoning designation not only determines the types of uses that are permitted but also affects that property's value.

Despite the importance of zoning decisions, factors affecting a local government official's decision to rezone a property and the impact of such a decision is not well understood. Other than Fleischmann, no one has attempted to explain decisions made by county zoning officials.

The theoretical base: Existing models of decision making

As demonstrated by Wilson, Saasa, Olson, and Bramley, several models have potential to explain decision making by elected officials. Among these theories are Simon's satisficing model, Lindblom's incremental model, Etzioni's mixed scanning model, and the rational-comprehensive model. Each of these theories is characterized by discernible diagnostic features as discussed below.

Decision makers sometimes select the first satisfactory option available that meets their need; that is, fits a given performance standard. This approach is the basis for the satisficing decision theory.

The incremental decision theory is based on a belief that decision makers rely greatly on their experience and therefore consider only action courses marginally different from actions previously taken. Their objective is a near certain (low-risk) outcome.

The mixed scanning and rational-comprehensive models imply a decision maker's logical and systematic selection of the best action alternative. Both these theories are built around a decision maker's desire for an optimal outcome. The search for alternatives with each approach initially is comprehensive. However, the difference is that with mixed scanning dead end options are dropped from the possibilities list after an initial scan of all possibilities.

Variables that condition decision behavior

Experts such as Freeman, Bolan, Allor, Rubin, and Griffin and Moorhead disagree about the types of variables that condition the decisions of elected officials. Thus, decisions of zoning board members are not easy to explain, because many factors influence these choices.

Building on the work of these scholars and my own observations, I argue that county zoning committee decision behavior is a function of five types of variables: (1) decision criteria used, (2) decision issue traits, (3) decision maker characteristics, (4) decision information, and (5) the decision-making forum and format.

Decision criteria concern the kinds of evaluative standards used by members of public policy bodies. Decision issue components include the degree of controversy, action urgency, complexity, and decision-maker perception of the importance of the issue (outcome risk perception) to self and to others. Decision-maker characteristics such as age, education, gender, or income may influence a person's decisions. A person's interests, beliefs, attitudes, values, motives, interest level, experience, or ability also may affect a decision. Decision-making information refers to the type and amount of data available to decision makers, including its source, accuracy, and utility. The forum for decision making refers to the nature of the interaction among members of a policymaking body, including

Table 1. Rezoning case outcome by county (3 month period)

Characteristic	County			
	Dane	Outagamie	Waupaca	Waushara
Number of cases decided	89	17	15	6
Approved				
with amendment	22	2	7	6
without amendment	63	13	3	0
Denied	4	2	5	0

each person's feelings about the need for decision consensus and consistency. Meeting procedures and the level of member conflict or cooperation also may affect a group's decision as can the meeting format (setting, time, atmosphere).

A zoning decision-making model

A model of these ideas on decision-making theories and decision conditioning variables is shown in Figure 1. Among other things, this model suggests a dual-level action process. Accordingly, it is divided by vertical dashed lines symbolically separating primary and secondary decision-making levels (see bottom boxes). A primary level decision determines whether a given problem will be addressed. If the primary decision is negative, a problem is not addressed. If the answer is yes, the decision process moves ahead to the secondary level. Thus, a root level decision (whether to act) must be made before consideration is given to a branch-level decision (which action).

The five types of conditioning variables (box 3/5) impact activities of decision makers at the primary decision level (boxes 4A, 4B). At the secondary decision level, these same conditioning variables serve as triggering devices for the type of decision behavior (box 6A) and for the evaluation of available alternatives (box 6B). Note that zoning decision makers ultimately select one of three action options. They either may approve, conditionally approve, or deny a rezoning request (box 7).

Ideally, this rezoning action permanently resolves the problem that initiated the decision process. However, a decision to rezone (or not to rezone) may create another problem (or an opportunity) requiring additional choices. Therefore, the decision process may revert to the primary level (box 1).

In my model, the conditioning variables are associated with the question of why rezoning decisions are made, whereas the type of decision behavior is allied with the question of how zoning decisions are made.

Applying the zoning model to Wisconsin counties

Having created an analytical framework for understanding county rezoning decisions (Figure 1), I applied my model in several zoning committee decision settings.

Data were collected for more than 100 rezoning decisions in Waushara, Waupaca, Outagamie, and Dane Counties (Wisconsin) during county zoning committee meetings held between March and August of 1991. Also, current (and former) members of these county zoning committees were interviewed to learn about their decision-making motives. These same persons completed a survey form on which they ranked the importance of various factors they considered when making rezoning decisions.

The case study counties had similar physical characteristics. However, they had important human differences. For instance, most residents of Dane and Outagamie counties lived in incorporated cities or villages, whereas most residents in Waupaca and Waushara counties lived in rural settings. In addition, many new homes were annually constructed in the former counties than in the latter ones. Accordingly, pressure to convert agricultural land to residential uses was great in Dane and Outagamie Counties, however, land development pressure was much less in Waupaca and Waushara Counties.

Members of the zoning committees in the study counties were elected to the county board by district in nonpartisan elections. They served two-year terms and could be reelected indefinitely. County zoning committee members were part-time public servants. They were predominantly male, at or near retirement age, and most represented rural districts. Farming was their most common occupation.

Findings on zoning committee decision making

As Table 1 shows, most landowner requests to rezone were approved. This high rate of rezoning approval can be explained. First, committees did not always approve a request as originally proposed. County zoning committee members often amended rezoning requests to increase the likelihood that no harm would result from their action. For example, they sometimes imposed conditions to limit land division, housing density, quarrying, or storage of equipment. One zoning committee gained additional assurance, in selected cases, by adding a restriction to the property deed thereby compelling a future landowner to abide by this condition.

Second, unacceptable proposals were screened out by staff at the primary decision level before they became official petitions (see Figure 1, box 4A). However, environmentally suitable proposals moved forward for action by the county zoning committees at the secondary decision level (Figure 1, box 4B).

Zoning committee members were given a list of criteria they might use in making rezoning decisions. They were asked to rate each criterion (always, sometimes, or never important) as

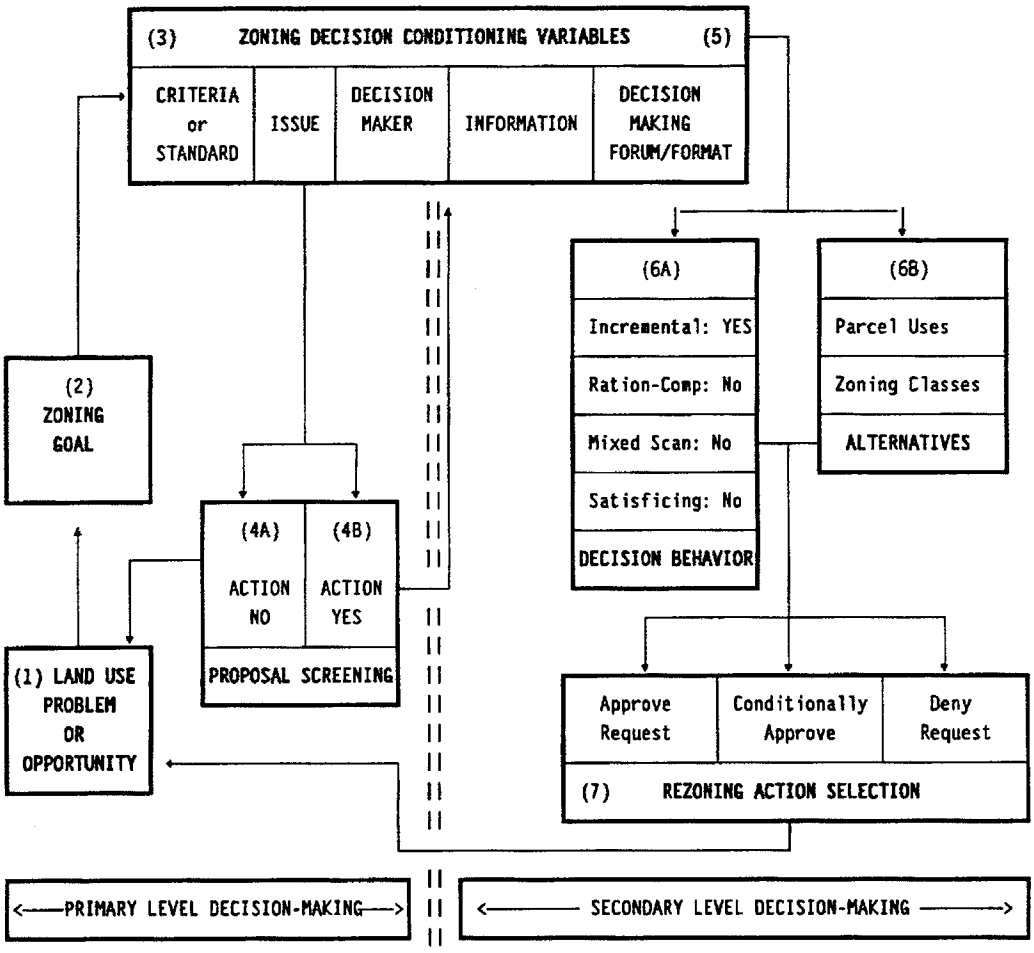

Figure 1. County zoning decision-making model

applied to a typical rezoning case they had previously decided. Aggregated survey responses indicated that the most important reasons for denying a rezoning request were (perceived) threats to health or safety or a concern that a parcel was unsuitable for a proposed use.

Survey responses on rezoning criteria importance were consistent with the basis for the decisions I observed. For example, it was evident that zoning committee members heeded neighbors' objections if these objections were based on bona fide threats to health or property. Even when there were no objections, committee members did not approve rezoning requests if they were uncertain about what might happen given newly permitted uses. Zoning committee member decisions did not appear to be based on a desire to satisfy self-interest or any special interest. Members were not interested in personal profit or loss. Pressures from developers seldom swayed members. They did not approve any rezoning request because they felt not doing so would jeopardize their political standing.

Zoning committee members, for the most part, used their best judgment based on case facts, hearing testimony, and especially their experience with prior decisions. They seldom departed from previous actions or practices. Prior rezoning decisions served as de facto land-use policy. Accordingly, broad land-use policy decisions were not evident in the rezoning decisions observed. County zoning committees rezoned scattered land parcels. Members did not decide uses for large geographic areas involving multiple owners. This simplified their decisions by reducing the number of use alternatives and zoning classes considered.

Conclusions on county zoning committee decision behavior

The incremental theory of decision making best explained county zoning committee member behavior in the cases observed.

First, it was evident that the county zoning committee decision process was incremental. Members of the committees used their ample experience with comparable cases while making decisions. When deciding, they used information about likely environmental effects (costs/benefits) gained from similar rezoning cases. Second, it was equally evident that county zoning committee decisions produced incremental outcomes. Rezoning proposals were not analyzed relative to use or zoning class options for lands in a large geographic area. Therefore, a rezoning of an individual parcel resulted in miniscule changes in a county's land-use pattern or zoning district classes.

Rezoning behavior was not well explained by

rational-comprehensive, mixed scanning, or satisficing decision theories. Most county zoning committee decisions were made rationally. However, rational-comprehensive (or mixed scanning) model diagnostic traits were not apparent. Committee members were not primarily interested in optimal outcome. Nor did zoning committee members decide cases through systematic evaluation of alternatives. Zoning committee members preferred a flexible approach. No single decision rule was used. They were not always satisfied with the first option presented. They did not mechanistically decide rezoning cases based on a performance standard linked to some desired outcome. Thus, decision behavior was not representative of the satisficing model.

Evidence was gathered from observations and interviews to conclude that variability in decisions made by zoning committee members was the result of differences in decision-maker backgrounds, viewpoints, and experiences. Also, it was a result of their differing perceptions of issue importance and their variable degree of certainty about possible effects of their decision. It likewise resulted from differences in decision information amount, source, and quality. In addition, it was related to the type of decision forum and format. Accordingly, these five types of conditioning variables prompted zoning committee member actions, especially at the secondary decision-making level.

Long-term land-use implications of incremental zoning decision making

Incremental zoning decisions as observed in the case study counties may lead to unwelcomed results because they are short-sighted and narrow-scoped. Piecemeal decision-making that permits scattered, unplanned development in agricultural areas could have an adverse cumulative effect. These effects may take the form of increased costs of public service delivery and foreclosure of future options for natural resource uses. While adverse effects were not evident from the decisions I observed, they likely would have been if the observation period was extended to take into account many more of the scattered land-use changes likely to be approved by the zoning committee in each county.

Incremental zoning decision making will not likely result in an optimal county land-use pattern in the future. Better zoning choices (more effective, longer lasting, less resource consumptive) are more likely to result from the use of a rational-comprehensive approach to decision making. Such an approach requires adherence to a land-use plan and use of carefully constructed policy guidelines on rezoning approvals for undeveloped land. Zoning committee members must develop a better understanding of the "big picture." They need to acquire a vision for uses of land that has spatial and temporal dimensions much greater than was evident when their decision focused on only one land parcel at a time. The application of a rational-comprehensive approach is particularly essential in more populated counties where development pressures are greatest.

Note

The Soil Conservation Society of America's policy on land use from the *Journal*, volume 25(1):72-73, stated: "the Society recognizes the right of local and state governments, as directed by their people, to plan for and decide the best use of the land and related resources." To that view I can only add, Society members have an obligation to advise, inform, and educate elected officials so that they make decisions that are in the long term interest of the nation's land and water resources.

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