

Social Equity in Agricultural Land Protection

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ABSTRACT

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It is asserted that public policy alternatives for agricultural land protection have been assessed largely on the basis of their efficiency. A social equity framework for assessing such policies is developed which stresses intergenerational, tenure and process equity concerns. This framework is used to evaluate the equity implications of four types of agricultural land protection pol-

icies — differential tax assessment, large-lot zoning, purchase of development rights and private, public interest land trusts. Sharply contrasting patterns of equity are evidenced among certain of the criteria and, under certain assumptions, the policies as a whole. In conclusion, the utility of equity assessment for policy analysis is stressed. Also, the need to further develop the social equity framework and to test the conclusions reached here via case studies of policies in place is called for.

INTRODUCTION

Agricultural land protection has been a prominent landscape planning issue for policy makers, citizens and planners for more than a decade in the U.S. Two foci have dominated the examination of agricultural land protection. One is an assessment of the actual amount and rate of acre-equivalent land loss per year, with estimates ranging from less than one million to nearly nine million acre-equivalents per year, and the resulting criticalness of this loss for the agricultural production system (Na-

tional Agricultural Lands Study, 1981; JSWC, 1981; Fischel, 1982; Raup, 1982; Gustafson and Bills, 1984; Baden, 1984). The second, more common focus is on the policy alternatives available to implement agricultural land protection programs. The experience and literature in this area is wide ranging, with experimentation occurring in all aspects of taxation, regulatory, direct action and public–private collaboration policy (Conklin, 1980; Coughlin and Keene, 1981; Furuseth and Pierce, 1982; Fisher, 1982; Steiner and Theilacker, 1984; Brenneman and Bates, 1984). While no con-

sensus emerges from the work to date as to which technique should be used to protect agricultural land, if such land is even in need of protecting, there is a largely unwritten consensus about the use of an efficiency criterion to evaluate public policy alternatives. This criterion is stated or implied to be: how well does a policy alternative work to prevent/retard the conversion of agricultural land to competing uses? (e.g. Duncan, 1984).

An issue left largely unaddressed has to do with the social equity of alternative agricultural land protection policies. While research continues to be necessary into the efficiency of policy alternatives, answers to queries over how well alternatives will work to protect land need to be supplemented with research into how equitable these efficient solutions are likely to be.

The lack of literature on the subject of social equity in agricultural land protection is on the one hand not surprising. It is a direct reflection of the general lack of literature on the social equity of land planning policy in the United States (Jacobs, 1985). With the exception of housing discrimination in suburban land-use controls the subject is largely unexplored. Why it should be surprising, however, is because of the clear recognition of the unique social nature of land and land policy in work in the developing world. Major international conferences such as the U.N. Habitat meeting in 1976, and reports by international organizations such as the U.N. and the World Bank stress this point (United Nations, 1976; Darin-Drabkin, 1977). Concerns along these lines have begun to appear in discussions on U.S. land planning policy in general (Brooks, 1976; Popper, 1979; Kaufman, 1980; Geisler and Popper, 1984) and very recently with regard to agricultural land policy in particular (Sampson, 1979; Ebenreck, 1983; Shrader-Frechette, 1984; Wunderlich, 1984).

This paper seeks to contribute to this discussion in several ways. Even among those who wish to examine and discuss the equity of land planning policy there is confusion over the

bounds of the discussion. Towards this end the first part of this article outlines an approach to understanding the concept of social equity, clarifying its meaning for the purpose of this discussion. Then, the general concept of social equity is modified in two ways, first to reflect the special geo-physical and social nature of land, land ownership and land policy, and secondly within the particular circumstance of agricultural land planning policy in urban-rural fringe areas of the U.S. In the third part of the article alternative policies for agricultural land protection are outlined and assessed. The article ends with thoughts on the utility of social equity analysis to land planning policy for agricultural land and other land resources and suggestions for further research.

DEFINING "SOCIAL EQUITY"

Social equity is an issue of long-standing debate throughout human history. Religions and political systems have been founded and fought for because of specific conceptions of equity. Recently, Rawls (1971) tried to formulate an approach to understanding justice which could be applied to policy analysis. But even this formulation is subject to direct attack (Nozick, 1974) and alternative formulations continue to be developed (e.g. Bookchin, 1982).

In the area of land policy, Misczynski (1978; p. 143) has noted that "equity...is a slippery concept". The reason, according to another researcher is that "inequity is a subjective concept, related to ethics and values and undefinable in exact terms" (Meadows, 1977, p. 136). There is, however, general agreement about the nature and dimensions of the concept of social equity.

Equity has two primary dimensions — the *substance* or outcome of the act, in this case the application of public policy, and the *process* by which the act, public policy, is formulated and implemented (Ervin et al., 1977). In common terminology these two foci are denoted as justness (justice) and fairness. The

dimension of justness focuses on outcomes or ends, the allocative results, of policy decisions. The dimension of fairness focuses on procedures, e.g. the impartiality of access to decision processes, whereby individuals and groups can get ideas and concerns expressed.

The concept of *social* equity further specifies a discussion of allocative and procedural equity as an examination of impacts of policy decisions on groups or classes of people, rather than individuals (Ervin et al., 1977; p. 20). The principal dimensions of social, i.e. group or class, equity are identified as horizontal or vertical equity. Horizontal or vertical equity distinguish between whether a public policy affects people *within* a group or class (horizontal equity) or *among* groups or classes (vertical equity).

An example of horizontal and vertical equity in the area of housing policy has to do with property tax relief proposals. Proposals to relieve the burden of local property taxes can take the form of a horizontal equity proposal, through a relief measure aimed at the class of existing homeowners, or a vertical equity proposal, through relief proposals that include provisions for renter participation, another group of sheltered persons affected by rises in property taxes.

These two major components of social equity, the type of equity and its class impact, can be combined to form a four-part description of the ways in which social equity can be discussed; see Table 1. Some of the confusion about social equity is perhaps clarified through this figure. It shows that it is possible to use the phrase social equity and yet be concerned with very different issues.

For the purposes of this discussion, social equity is defined as "a just distribution, justly arrived at" (Harvey, 1973, p. 98). This means that social equity will be a combination of states [1] and [2] in Table 1. A social equity assessment of agricultural land protection policies will thus seek to determine if policy alternatives are fair, open to participation and

TABLE 1

Social equity analysis framework

Class impact	Type of equity	
	Allocative	Procedural
Vertical	Allocative/ vertical [1]	Procedural/ vertical [2]
Horizontal	Allocative/ horizontal [3]	Procedural/ horizontal [4]

[1] Redistribution of resources among separate classes.

[2] An open, democratic, policy process.

[3] Distribution of resources to a particular class.

[4] Restricted access to representation and administration.

influence by a range of interest groups and classes, and just. However, the justness of policy needs to reflect the particular nature of land as a resource and commodity in urban-rural fringe areas.

SPECIFYING SOCIAL EQUITY ASSESSMENT CRITERIA

Land economists, soil scientists, conservationists and others have long asserted the unique nature of land, as both a resource and as a commodity. These unique features of land can be summarized into six points (Kelso, 1972; Harvey, 1973; Ratcliffe, 1976; Misczynski, 1978; Lichfield, 1980).

(1) Land is non-uniform. Parcels of land can be vastly different from one another in resource capability. This difference is important because it is difficult and expensive to create or recreate certain resource characteristics, such as productivity.

(2) Land is a limited resource that, in the usual sense of the word, cannot be produced. It is a resource which, though durable if properly cared for, is susceptible to depletion.

(3) Land cannot be moved. It has a fixed location to which use in it is tied.

(4) Land uses have ripple effects. A given use of land can set into motion dynamic forces which over time establish new land use relationships.

(5) Land is an absolute social necessity. A person cannot exist without occupying and using physical space for living, working and all the other aspects of individual and social life.

(6) Land is owned, in two important ways. In the present the ownership of land is distributed among society's members by some set of social-political-economic rules. This ownership results in certain legal and socio-political-economic rights and privileges (Popper, 1979). At the same time, all members of the present own land to the exclusion of future generations. For both private and public land those in the present decide the intensity of use and therefore the range of land-use options which will be available to future users (Page, 1977; Doleman, 1980).

One specification of the justness basis of social equity in agricultural land protection policy comes from combining the concern with the future in point (6) with the first and second points outlined above. A concern with the limited, non-uniform basis of land, combined with a perceived ethical obligation to deliver to future generations a sufficiently broad set of land-use choices, leads to the articulation of an intergenerational equity criterion. Specifically, it can be stated as — land policy should preserve long-run options for resource use.

Balanced against the intergenerational criterion for social equity are concerns for social justice implications of current patterns of land ownership and use. These are commonly denoted as tenure concerns. Three classes of persons would seem to be most directly affected by agricultural land protection policy in the urban-rural fringe: (1) the owners of the land; (2) prospective homeowners; (3) prospective agricultural users of the land, i.e. new farmers. This list of groups affected by proposed agricultural land policy is not exclusive. Instead, it represents, in this author's opinion, the groups with the most pressing equity concerns.

For existing owners of agricultural land, the concern is with the impact of proposed policy on the market value of the land. For many

owners of agricultural land, particularly those characterized as family farmers, the economic value of the land represents their major item of personal investment and wealth (Ervin et al., 1977; Lapping, 1979). An equity criterion for existing owners should seek a fair return on the value of the land, or conversely, policy should not wipe out the land's value to the individual landowner. While there is considerable disagreement as to what constitutes "fair" or "just" compensation under the taking clause of the Fifth Amendment to the U.S. Constitution, given that agricultural land protection policies single out owners of agricultural land for differential treatment from other classes of landowners in an area, and since these owners may be among those least able to bear the individual and class burden of providing a public good, the equity criterion for this group suggests that they receive some reasonable, though not necessarily full market equivalent, return for the value of their land.

The second group identified above is prospective homeowners. In the urban-rural fringe, agricultural land is under particular pressure from competing land uses, especially residential uses, because (i) many of the characteristics of land which facilitate agricultural use also facilitate residential development — the land is generally flat and well drained — and (ii) in a regional housing market the input variable with the most elasticity is likely to be the cost of land, so that land acquired and used for housing at the urban-rural fringe can significantly lower the average price of housing. In this situation, public policy which restricts the availability of agricultural land at the urban-rural fringe could possibly lead to higher prices for housing for new prospective homeowners. An equity criterion would thus be — any policy action should not adversely affect the opportunity for prospective homeowners to acquire new housing at prices comparable to those which could be expected if the program were not in place.

The third and final group is new farmers.

One of the purposes of any agricultural land protection program is to retain land in agricultural use. For agricultural land to be in agricultural use requires a number of things including, importantly, farmers (Lapping, 1979). The age profile of America's farmers is growing older. They are generally over 50 years of age, and the number of young people entering farming is small, in large part because of the capital costs of starting new farm operations, a significant part of which is attributable to land costs. An agricultural land protection program whose aim is to insure the long-term utilization of the land must be concerned with the ability of new producers to get access to that land, and thus the impact of any policy program on this factor. An equity criterion with regard to this consideration would therefore be — policy action should moderate land purchase costs, below fair market value, at the time new producers seek to acquire such land.

In summary, it is argued that a social equity basis for assessing agricultural land protection policy has five equity criteria, drawing from the general nature of social equity as a concept and from the particular nature of land, and especially agricultural land, as a resource. These criteria are:

- intergenerational equity — policy should preserve long-run options for resource use;
- tenure equity for existing landowners — policy should provide the opportunity for a fair return on land value;
- tenure equity for prospective homeowners — policy should not adversely affect housing prices, by unduly restricting land for residential development;
- tenure equity for new farmers — policy should moderate the price and availability of land such that farmers can acquire land to use in agriculture;
- process equity — policy should be open for participation by a wide range of groups and interests, in both policy formation and administration.

It is important to recognize, though, that a

social equity assessment of alternative agricultural land protection policies will reflect the particular orientation of the commentator or policy advocate. Environmentalists and conservationists have traditionally afforded more weight to the intergenerational aspects of land protection policies, for agricultural and other land resources. Legislators and policy administrators have afforded more weight to process equity issues, asserting that a fair process for making decisions will result in fair decisions. Tenure equity concerns have been brought forth by those adversely affected by a policy approach, most often existing landowners arguing against strict regulatory policy.

POLICY ALTERNATIVES FOR AGRICULTURAL LAND PROTECTION

As noted, there is wide ranging experimentation in agricultural land protection policy. Various forms of policy have been tried or proposed for all levels of government. This includes taxation, regulatory, direct action and collaborative public-private policy by local, state and national government (Conklin, 1980; Coughlin and Keene, 1981; National Agricultural Lands Study, 1981; Steiner and Theilacker, 1984; Duncan, 1984; Hiemstra and Bushwick, 1986; Rozenbaum and Reganold, 1986; Grillo and Seid, 1987). For the purposes of this article, a single, prominent example of each type of policy is assessed against the five social equity criteria. These policies are: (1) differential property taxation; (2) large-lot agricultural zoning; (3) purchase of developments rights programs; (4) private land trusts. This section briefly explains each alternative. (The description of these four programs is drawn principally from the literature noted immediately above. Each characterization is thus not an accurate description of any particular state or local approach to agricultural land protection, but is instead a generalized description which captures the most common features of the four programs. These features will in turn be modified as a program is ac-

tually implemented by a state or local government.)

Differential property taxation is a common policy approach in the U.S. with programs in 49 states. Under constitutional amendment and enabling legislation real property law is modified to allow for the taxation of agricultural land on a basis different from other types of land. Voluntary incentive programs are established which offer agricultural landowners, sometimes only farmer agricultural landowners, some method to reduce the burden of real property taxes. Programs between states differ on which method is offered to landowners, e.g. a fixed amount per year or a fixed percentage of a floating, actual amount, and whether and how, if at all, the state seeks to guarantee commitment from a landowner in return for tax abatement, i.e. a recapture provision for all or a portion of abatements granted if a contract is broken, or a resource management plan. States also differ on whether the program is administered solely by the state, or only enabled by the state and implemented through a local program.

Large-lot agricultural zoning is an application of the government's police power, the power to regulate on the basis of public health, safety, morals and general welfare, to the issue of agricultural land being converted into other, competing uses. Zones are established in which agricultural use of land is the primary permitted use. The minimum lot size assigned to this preferred use is not uncommonly 40 acres or more. Other agricultural uses of land are permitted, including the building of barns and other outbuildings, as well as dwelling units to house agricultural employees. Most non-agricultural uses of the land are treated as conditional uses. Alternative land-use proposals are reviewed individually on the basis of how strongly they will negatively affect the use of land for agriculture. A recent report by Toner (1984) shows a pervasive use of some form of large-lot agricultural zoning by different levels of sub-state, local government. Under large-lot

agricultural zoning, pressures to convert agricultural land to competing residential and commercial development uses are not removed, but are instead held in check and discouraged through the use of the regulatory authority. Modifications of the rules are possible, with the frequency and extent varying from community to community.

Purchase of development rights (PDR) programs are dramatic examples of direct-action policy on the part of government. Instead of, or in addition to, responding to a perceived problem in the land market by offering incentives, through taxation, or setting rules for behavior, through zoning, the government participates directly in the land market. The goal is to remove market pressures and assure long-term agricultural use of the land. The vehicle used to achieve the goal is voluntary purchase by the government, from the individual agricultural landowner, of the property right that represents the authority to execute land-use change, such as to a non-agricultural land use. With the purchase of that right, the property legally loses the ability to be used in non-agricultural uses while remaining in private ownership. The land is still held by a private owner, who can exercise all the other rights in the land, including private party transfer of the land. Prominent examples of this approach to agricultural land protection are conducted by the State of Massachusetts, King County, Washington and Suffolk County, New York. In all cases the program is expected to require tens of millions of dollars to implement.

Private land trusts are to land policy what non-profit housing corporations are to housing policy, or community development corporations are to local economic development policy. Land trusts are an attempt to use the financial advantages offered private, non-profit corporations to achieve public-interest land-use goals. They exist as a supplement to other forms of public land policy and have the potential to exercise a wide variety of management tools with regard to land policy objectives. Land

trusts can acquire development rights, hold land, develop land or manage land or rights in land for themselves or on behalf of other parties. There have been some interesting developments in land trust activity for agricultural land protection at the national, state and local level, most commonly through the managed donation of development rights from the landowner to a land trust. The activities of the Vermont (State) Land Trust, the Marin County Land Trust in California and the American Farmlands Trust nationally are the most prominent example of this approach to agricultural land protection.

A SOCIAL EQUITY ASSESSMENT OF ALTERNATIVE POLICIES

A social equity assessment of alternative agricultural land protection policies is necessarily a slippery exercise. It involves a set of subjective judgments that can at their best be made as explicit as possible for examination for reassessment by others. Table 2 is a summary of this assessment. The four policy alternatives outlined above, and the five social equity criteria are arranged in a matrix. This allows for: (1) an examination of each single policy

against the five criteria, by going down a column; (2) a rough, summary social assessment of each policy alternative, by "summing" values associated with each cell in a column; (3) a comparison among policies, on the basis of an individual equity criterion, by comparing policies across rows, and by comparing their "total" assessments.

Alphabetic values in the cells are notations for a simple three-point scale. "E" denotes an excellent fit between the structure of the policy program and the equity criterion, "G" a good fit and "P" a poor fit. These values are, however, more accurately probability statements about the likely fit between an individual program, as developed by a state or local government, and the equity criteria. "E" suggests that it is more than likely that the policy program will satisfy the equity criterion, "G" suggests likely and "P" suggests less than likely, though for each cell value there are numerous exceptions, because of the many variables which impact upon the formulation and administration of public policy programs. This section presents the rationale for the values assigned to the cells of Table 2, with the discussion structured around the four policy programs. (The data for assigning values to cells in Table 2 are

TABLE 2

Summary social equity assessment of agricultural land protection policies

Equity standards	Policy programs			
	Taxation (differential assessment)	Regulation (large-lot zoning)	Direct action (purchase of development rights)	Public-private (private land trust)
Intergenerational	P	P	E	E
Tenure				
Landowners	E	G	E	E
Prospective buyers	P	G	P/G	P/G
New farmers	P	P	E	G/E
Process	E	E	E	G
"Total" equity ¹	G ⁻	G ⁻	E ⁻	G ⁺

"P" denotes a poor fit between the program and the equity standard; "G" a good fit; "E" an excellent fit.

¹A simple sum average which assumes equal weight among the five criteria in the column.

drawn out of the following principal sources: Conklin (1980), Coughlin and Keene (1981), Steiner and Theilacker (1984), and with regard to private land trusts in particular, Brenneman and Bates (1984) and Institute for Community Economics (1982).)

Differential property taxation

Differential property taxation is the most common state policy program in the U.S. The reason is most likely that it does not require a direct expenditure of funds. Instead it allows for a sometimes relatively small, and almost always hard to identify, shift in property tax burden away from agricultural land uses to other uses of land. This program is also popular from the users' point of view. Policy programs offer some method for direct reduction in property tax burden, with anywhere from zero to 10 or more years of commitment as to agricultural use. Almost all contractual arrangements can be broken by the agricultural landowner at any time during the contract period, and even when tax recapture provisions exist, they rarely outweigh the financial gain which can be accrued through selling out to a competing, non-agricultural use. Even for those who choose to fulfill a contract period, there is evidence to suggest that unless programs require 20 or more years of commitment from the landowner, abatements may be granted to landowners for whom such an incentive will not prevent eventual land conversion (Brown et al., 1981).

In Table 2 intergenerational equity is rated as poor. The short- to medium-term contractual nature of the program, and the ease with which most programs can be voided by a participant remove any guarantee that land will remain in agricultural use. Studies have shown little direct relationship between differential property taxation and a reduction in the rate of agricultural land conversion. Among the three tenure equity criteria, the landowner's equity is rated as excellent, while that of home

buyers and new farmers is poor. For the landowner, from the perspective of the defined equity criterion, differential taxation is a windfall. For the period the land is in agricultural use it is eligible for reduced property taxes and yet at almost any time the property can be sold on the market, for fair market value, with little or no additional burden other than repayment of abated tax amounts for a specified period. For the home buyer the program has poor equity implications because if there is widespread participation in a region the supply of land for housing may be restricted, and land which is available will be selling toward the top end of a market range. For the new farmer the equity implications are also poor for many of the same reasons given in assessing intergenerational equity. Nothing about the program guarantees the availability of land to new farmers, at any price, and especially not at a less than full market value price. In the area of process equity, differential property taxation is given an excellent rating, not so much from the experience of how these programs have been set up and run, but because there is nothing about the structure of the program that prevents an open, democratic process of policy formulation and administration.

Large-lot agricultural zoning

Large-lot agricultural zoning programs have the advantages and disadvantages of zoning policy applied to other types of land resource management issues. As regulatory policy, such action is a relatively direct yet inexpensive method for public sector action with regard to a perceived problem. However, as regulation it cannot compel proper behavior on the part of individual landowners, but rather can establish rules which define the realm of improper and unacceptable behavior. In this way, large-lot agricultural zoning is an example of negative, reactive policy, rather than positive, initiative policy.

Large-lot agricultural zoning is given a poor

rating for intergenerational equity. The reason for this has to do with the administrative history of zoning in the U.S. Since its formulation in the early part of this century, zoning has been used as a land management device which is expected to change with changing land market and socio-economic characteristics in a locale. It is not designed, and is ill suited, to guarantee the long-term use of land in a particular use class. This is the reason for the extensive use of legislative and administrative procedures to amend and vary the requirements of regulations. Therefore, if large-lot agricultural zoning is like other uses of zoning, it will be unable to withstand pressures to use land in competing uses, where a market for such uses exists. Transference of the land to future generations is in no way guaranteed.

For the tenure criteria, Table 2 shows two good ratings and one poor rating. Following from the discussion immediately above on intergenerational equity, landowners equity, in terms of receiving a fair price for land value, is unlikely, in the long term, to be harmed by the existence of a zoning program. While the opportunity to sell for maximum market value will be impeded for certain landowners at certain points in time, many other landowners are likely to be able to receive some variation on the requirements of a program where it would cause undue personal harm for the land to remain solely in agricultural use. This may involve the permission to receive non-agricultural prices for a portion or all of the land. For prospective home buyers the rating is also good for many of the same reasons. Where sufficient pressures to use agricultural land in non-agricultural uses exist, buyers are unlikely to see zoning withstand pressures for the availability of reasonably priced land. However, demands for land will be balanced against the goal of land in agricultural use, and as such there is likely to be some restriction on land availability. From the perspective of new farmers this approach to agricultural land protection gets a poor rating. Zoning actions are

largely directed at current owners of property. There is nothing about the program which insures that land will be made available at below market costs so as to allow new farmers to facilitate the start of agricultural enterprises. In terms of procedural equity, large-lot agricultural zoning receives an excellent rating because, like differential property taxation, there is nothing about the structure of the program that prohibits an open process of participation. In fact, zoning, among the four alternatives discussed here, may have the best potential in this regard because many state enabling laws require extensive public hearing and review procedures for the formulation, adoption and administration of a zoning law.

Purchase of development rights programs

PDR programs are significant departures from the preceding two approaches to agricultural land protection, because they involve substantial direct financial outlay and commitment on the part of the governmental unit. As noted in Table 2, this approach to agricultural land protection suggests equity impacts substantially different from either taxation or regulatory policies.

The intergenerational equity of PDR is excellent. With the development right to property purchased away, and the fundamental legal status of the land changed, it is all but assured that the land will not be put into an incompatible, competing land use. (PDR programs do not assure, however, that the converse will be true — that the land will remain in productive, agricultural use.) Among the tenure criteria, two are excellent and the other poor/good. Landowner's equity is rated as excellent because under PDR a qualifying and interested landowner is paid market or near-market value for the development right. As the program is voluntary, no landowner is required to accept the separation of the development right from the property rights bundle, or the particular

price offered for a right. Prospective homeowners' equity is rated as poor/good. It will likely be poor if there is an extensive amount of agricultural land in the area covered by a program and if there is widespread participation in the program. Then the supply of land available for housing will be reduced, and the price of available land will increase. If either of these conditions is not met, i.e. there is not much land covered by a program and/or there is not widespread participation, then the equity impact of prospective homeowners will be moderated. For new farmers the tenure equity of PDR programs should be excellent. Experience and theoretical analysis have shown that development rights cost from 50 to 95% of total land value, depending on the nature of the land market (Coughlin and Plaut, 1978; Coughlin and Keene, 1981). In theory, new farmers should be able to purchase land for agricultural use at a cost which directly reflects the development right purchase. Most of the current programs are as yet too new to have any evidence in this regard. In terms of process equity, PDR programs are rated as excellent. Largely because they do require substantial outlay of funds, PDR programs have been subject to intensive public screening and input. They are initiated as a result of public interest in more direct action for agricultural land protection, and they are administered in such a way as to make the identification of purchase sites and areas a matter of public record and discussion.

Private land trusts

Private land trusts that are established as tax-exempt, non-profit corporations under federal and state tax codes, exist to implement public-interest land-use goals. They do not have the authority to compel participation in their activities. Trusts rely on the powers of persuasion, relating to both the economic self-interest and land ethic principles of agricultural landowners. As private corporations, they can be

extremely flexible in applying a range of land management powers in such a way as to meet the very specific and particular needs of an individual landowner.

The intergenerational equity consequences of private land trust activity in agricultural land protection should be excellent. Land or development rights acquired by the trust will change the legal status of the land, so that it will be nearly impossible for agricultural land to be put into incompatible, competing uses. The equity for landowners is also excellent. The trust allows a landowner to receive payment (sometimes indirectly through tax savings) for changes in property rights status. As a voluntary transaction, the values of the payment will be of a satisfactory nature, even if it does not always represent full, fair-market value. For prospective home buyers the activities of a land trust will have poor to good equity impact, depending on the activeness and success of the trust. An active and successful trust may have significant impact on land availability in an area, and result in higher prices for remaining land for housing. If, as is more likely, a trust will be active but will be unable to have a significant effect on land holdings or prices then prospective home buyers would not find prices inflated and the equity standard could be rated as at least good, and perhaps excellent. The equity assessment for new farmers is good to excellent, with the difference being how sensitive the trust is to the goal of land acquisition for new farmers. If a trust is very sensitive and conditions its participation on access for new farmers, the equity results should be excellent; even if it does not, the results should be at least good if landowners who participate in the activities of the trust sell land for its agricultural use value. Finally, the process equity impacts should be good, but could be poor. Many trusts are membership organizations which seek to involve people in a community and regional area concerned with agricultural land protection. But the limitations on process equity have to do with the actual accessibility of the orga-

nization to a range of persons (i.e. membership fees, meeting times, etc.) and the power afforded members to form and direct the organization's policy (i.e. whether members elect members of the board of directors, how priorities are formalized, etc.).

Patterns of social equity

As is clear from the final row of Table 2, as well as the pattern of individual cell values, different policies for agricultural land protection appear to have different social equity impacts. The final row of Table 2 is constructed by assigning each of the cell designations a numerical value of 1, 2 or 3, corresponding to poor, good and excellent, and then simply summing and averaging the values from the preceding five cells in the column. The values that result thus assume that each of the individual criteria should be afforded equal weight. What results is a differentiation between two sets of policies: differential taxation and large-lot zoning are designated as "good-minus", and purchase of development rights and private land trusts are designated as "excellent-minus" and "good-plus".

Perhaps the most striking pattern in Table 2 is the difference for intergenerational equity between the two sets of policies. The taxation and regulatory options for agricultural land protection are rated as offering poor chances for intergenerational equity, while the direct action and public-private options offer excellent chances to protect land for future generations. The equity impacts for new farmers show a similar sharply-contrasting pattern. All of the policy alternatives examined here appear to have roughly equal equity impacts for existing agricultural landowners, with only large-lot zoning possibly interfering with the ability of owners to obtain a fair and reasonable price for property rights. Because it is the program most likely to be developed within a context of a comprehensive land use plan, large-lot zoning appears to have the best equity implications for

prospective home buyers, though none of the programs are rated as excellent on this criterion. Finally, in terms of how programs appear to facilitate public participation in program formulation and implementation, all three of the public programs have the potential to be excellent in this regard, with private trusts' capability moderated because of their private nature.

SOCIAL EQUITY ANALYSIS OF LAND POLICY

This paper presents one attempt to articulate what fairness in land policy means, and to apply that specification to an assessment of the equity implications of alternative agricultural land protection policies. It is necessarily exploratory in nature. It is intended to be valuable in two ways: (1) by making clear the basis for discussing social equity in land policy and showing how persons concerned with it can legitimately differ over the framework for policy assessment; (2) by offering an assessment framework to which others can bring different arguments and conclusions, based on, for example, assigning unequal weights among equity criteria.

The conclusions which follow from this analysis are different from those which focus solely on issues of efficiency, effectiveness or political feasibility. This additional insight into the impacts of land policy action is valuable because it helps to respond to some of the bases for public interest in land policy action in the first place, and identifies early on, in a clear way, some of the trade-offs that occur with the choice of one policy alternative over another. Ultimately, the application of this type of approach to assessment of agricultural and other land resource policy options should allow for policy which is better at achieving stated goals, because of the recognition of the broad range of constraints and impacts flowing from alternative actions.

Clearly, though, this attempt at social equity analysis is preliminary in nature. The data for

the assessment is secondary information on the actual or expected performance of a limited range of policy alternatives. If social equity analysis is to be more fully developed so that it can be of continuing help to the policy analyst and planning practitioner, at least three things need to be done with the analysis: (1) the assessment should be expanded to include other policy alternatives for agricultural land protection; (2) the data for determination of cell values in Table 2 need to be supplemented by case studies of actual equity outcomes of applications of alternative policies; (3) the conceptual work which underlies an equity analysis needs to be refined and expanded. For example, are the five stated social equity criteria the only and best criteria to use in assessing land policy alternatives?

Land-use policy in general and agricultural land protection policy in particular has significant social impacts. Certain interests, classes and groups in society will gain as a result of certain types of policy action, while others will lose. Throughout history and in other parts of the globe land policy is recognized as being at the crux of social, economic and political relations and power. Social equity assessment of alternative policies can help planners and land resource managers to better understand the emotion generated by proposed policy action, and to propose more specific land policy solutions which best combine concerns for efficiency and equity.

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