

# EFFICIENCY, EQUITY AND FARMLAND PROTECTION: AN ECONOMIC PERSPECTIVE

by

Lawrence W. Libby<sup>1</sup>

## Introduction

The purpose of this paper is to consider how economics as a social science may help organize our thinking about farmland protection policy in the U.S. Every state and many localities have enacted policies to alter the pattern of development in the interest of keeping more land in farms (see American Farmland Trust, 1997 and Daniels and Bowers, 1997). The policy instruments range from regulating the land market, to public purchase of the landowner's right to develop the land, to organized wishful thinking about the future through land use planning. All of these techniques alter the options and obligations of land buyers and sellers to achieve a land use pattern more in line with social preferences. Many economists fret about these policy distortions of land markets as if there were markets *without* rules that determine who can participate and for what. Other economists, the more enlightened ones, avoid all the normative gibberish about the sanctity of markets and the illegitimacy of farmland protection as a policy issue, preferring to consider the consequences of alternative means for achieving this public purpose.

This paper begins with a brief discussion of what economics is and isn't as a discipline, with reference to farmland protection policy. The two main analytical constructs of economics are efficiency and distribution. Both have strong normative underpinnings, the latter emerging as a particular distribution that is termed equity. Both are considered here. Institutional economics, a sub-discipline of economics, is just below the surface throughout, but will not be treated specifically here. That would be another paper.

The paper concludes with some insights for future policy in this area.

---

<sup>1</sup>C. William Swank Professor of Rural-Urban Policy, Department of Agricultural, Environmental and Development Economics, The Ohio State University. Prepared for the Educational Symposium of the American Agricultural Law Association, Colorado Springs, CO, October 11-13, 2001.

## Economics as a Language

Economics is really a fairly useful discipline, if you do not take it too seriously. It can help anticipate the results of interactions (including competition) among people seeking their notion of improvement. Economists are notoriously disinterested in exactly why people do what they do, but observe that people collectively seem to act *as if* they are trying to be better off, and even as well off as possible. We do know that people are occasionally altruistic, even to the point of being cooperative with others. We also understand that human relationships matter in any particular instance. That is, I do feel good knowing that my neighbor is better off, so long as its not *always* at my expense, and I would in fact sell my car to my daughter at a lower price than to any of you. Now you might argue that such softness is really self-interest, since I expect reciprocity some day, both from my neighbor and my daughter. But in fact, even economists acknowledge that people do care about each other in any specific interaction.<sup>2</sup> It's just that over time, over millions of transactions, people tend to act as if they were only interested in A good old #1.≡ That is a fairly powerful observation, but again should not be taken too seriously.

Economics is a language of concepts that capture complex relationships among people in land transactions. Comparative advantage, for example, recognizes that resources are more productive in one use than another and therefore there are gains from trade among individuals, regions, or nations. Opportunity cost is the assertion that every land use has a price, as the value of what *might* have been done on that parcel. Markets bring buyers and sellers together in an impressive fashion, but with complex rules about who can negotiate about what. Markets are really collections of rules, including private property rights, sanctioned and supported by governments, to accomplish trade. Without government there would be no organized market.

Thus this conceptual apparatus that is economics is helpful in understanding and predicting human interactions in land markets. It is much *less* helpful, in my view, in saying what *should* happen to farmland or any other resource or in deciding which particular distribution of land rights implicit in policy options is A fair.≡ People, including economists, have opinions about who should pay and who should gain from land use rules, but the discipline itself can draw few conclusions on the matter.

## Efficiency and Farmland Policy

There are really three efficiency questions that may be applied to farmland use. Markets can help

---

<sup>2</sup>Empirically, however, economists are *less* cooperative than other people. Frank *et al* (1993) compared economics graduate students and faculty with other people in their responses to various free rider and Aprisoner's dilemma≡ games where tendency to cooperate was the key variable. Economists are demonstrably and consistently less cooperative. They concluded that training in economics tends to create or at least reinforce that behavior (or perhaps less cooperative people choose to study economics).

answer all three in the context of public policies that shape the rights and responsibilities of the transactors. Those questions are AHow much is enough?,≡ AWhat is the best use for a particular parcel?,≡ and AWhat is the best mix of land uses overall?≡ One might also ask AWhat is the most efficient way to protect farmland?≡

Del Gardner made the case in his significant 1977 article (Gardner) that if food production is the land use purpose, there is no reason to assume that the market will not allocate sufficient land to that activity. Land prices reflect relative scarcity of land uses and with a firm set of property rights (undistorted by zoning or other interventions) land will move to its most efficient use. Farmers will pay more for more productive land and will choose a mix of enterprises that is best for location and other aspects of the market. Food scarcity would trigger higher prices, capitalized in land value, bringing forth more food production. It would be inefficient (and therefore unwise) to substitute a bureaucratic decision process. But Gardner does acknowledge that there are some farmland services that have high exclusion costs for the landowner, that cannot be withheld from those unable or unwilling to pay for them. Therefore, the market will allocate an inefficient amount of land to those Ajoint products≡ of food and various amenity services. These other farmland services, difficult to impossible to sell because of the high exclusion cost, are never-the-less valued by consumers and secured through the policy process. They include various ecological services (groundwater recharge, waste processing), habitat, the option value of having farmland around in case we need it for future food production, and various landscape amenity values. I have argued elsewhere (Libby, 1997) that many people experience a certain sense of well-being from knowing that very long term food needs will be met and will support efforts to maintain that sense of security. This farmland service is a pure public good in that enjoyment by one does not diminish its availability to others and no one can be excluded from its use.

The Ahow much≡ of farmland efficiency, then, requires that the high exclusion cost services of farmland be part of the analysis, or too little land will be allocated to farming. And the Abest use≡ for particular parcels or acres must also consider these other services, or the result is inefficient. AHighest and best use≡ is a land use concept with both legal and economic meaning. It generally refers to the use that will command the highest price between willing buyers and sellers. It has special status in both law and economics as that use that Ashould≡ prevail.<sup>3</sup> Being able to bid more for a parcel than someone else is clearly a function of market rules on who has standing in that market and the uses that are permitted. *Thus, efficiency is a function of market rules -- different rules mean a different definition of efficient land use on a particular parcel.*<sup>4</sup>

---

<sup>3</sup>Land taxes are levied based on value of the AHighest and best use≡ of the parcel in question. There is considerable normative significance to the use that can pay most for given acres as being the best use of that land, the use that should prevail. Devoting land to an activity of lower value than its highest and best can be costly for the owner.

<sup>4</sup>It is also true that land price reflects various other policy interventions that are capitalized in land value. Public spending for highways, sewers and water systems gives land added value. Federally backed credit systems (the Federal National Mortgage Association,

Similarly, market rules determine spatial patterns of land use. Patterns evolve in the competition for productivity and location. The greater the net monetary returns, the higher the price offered for a particular parcel. Location affects net returns on the cost side, as distance to market. Intensity of land use tends to be greatest close to a market center, and declines with distance into the farming area. The efficient land use pattern, then, is predictable as highest and best use varies over space.

Inclusion of the non-food services of farmland secured through policy, however, alters the spatial pattern to reflect what people really want from the land. Real efficiency of land use, then, requires a land market that includes these joint products of farmed land. Much effort has gone into estimating the implicit willingness to pay for these services as if efficiency were really the goal. Bergstrom and colleagues asked residents of Greenville County, South Carolina what they would pay to stop development of specific farmland acres (1985). Halstead posed various bid levels to Massachusetts residents to determine at what price development was more important than protecting the farmland in question (1984). Beasley used a similar approach in Alaska (1986). Costanza *et al.* went one step further to estimate the economic value of ecosystem services of farmland as the cost of providing those same services by artificial means (1997) The socially efficient allocation of land to farming, then, would be that level at which no one could be better off without making someone else worse off, or at least those who gain from a specific reallocation could pay off those who lose, and still come out ahead (see Varian, p.15).

In fact, no one really cares about efficiency of land use as such (except perhaps a few professional economists) but they demand a mix of uses and a commitment of land to farming that reflects their interests. Land use policy is about securing those land services and efficiency criteria are generally ineffective at selecting among policy alternatives.

If the goals of farmland policy were clear and precise, we could compare alternative policy instruments for their cost to achieve the defined result. Perhaps zoning can protect 1000 acres of prime farmland at a lower public cost than purchase of development rights. Therefore we might conclude that zoning is more cost effective and in some sense more efficient. The real question would be whether the same services were acquired under the two policy options. Do zoned farmland, land restricted by easement and land retained by the farmer with use value assessment produce the same services? I doubt it. Efficiency analysis is just not very helpful. The more meaningful questions relate to whose preferences are expanded and whose reduced under various policy mixes.

## Equity Questions

---

Veterans Administration and even the tax deduction for mortgage interest) encourage new single family homes, most of them at the periphery of urban areas (see Rusk, 1999).

As noted above, the term *equity* implies that one distribution of rights to use land is fairer than all the rest. One is tempted to conclude that *efficiency* is *fairest* and while economists studiously avoid making judgments about whose utility is more important, there is a strong presumption that efficient allocation is fair since no one could be made better off without someone else being worse off by any land use or policy change. That logic aside, what are the equity questions in farmland protection policy.

Is agricultural zoning fair? This is obviously a matter of opinion. Many economists seem ready to accept that exclusive agricultural zoning is in fact *not* fair. Such zoning could impose a wealth loss on farmers to provide the collective goods of farmed land for society as a whole (Gardner, 1977). But in fact, the market value of farmland already reflects the impacts of public spending for roads and other infrastructure (see Runge, 2000). Perhaps agricultural zoning just reclaims a portion of that value for the public in the interest of protecting certain non-exclusive land services while protecting the farmer's opportunity to farm. That would seem to be a reasonable conclusion.

There is an important distinction here between large lot rural zoning to *discourage* residential development in farming areas and true exclusive agricultural zoning that explicitly omits non-farm residences and other such activity from the list of uses permitted in an agricultural district. Even at 20 acres or more minimum lot size there is real doubt that the large lot approach achieves, or even *could* achieve, the stated public purpose of keeping land in farming. Many local agricultural zoning ordinances, including those in Ohio and other Midwestern states, impose few restrictions on residential or commercial activities within the agricultural zone and post minimum lot sizes of three acres or less. These districts essentially become holding areas for future development rather than real protection of farmland. As such, these ordinances may impose cost on some landowners with little real public purpose. I would argue that such permissive restriction could constitute an unfair, if short term, limitation on the landowner with little connection to public benefit.

The major legal test of the fairness of agricultural zoning is the *Atakings* clause of the U.S. Constitution. Does the restriction so impinge on the owner's ability to earn income from the land that it constitutes a regulatory taking that requires *just compensation* under the Fifth Amendment? The relevant tests seem to be the *Lucas* test of *all economic viability* and the somewhat less restrictive *Penn Central* test of *investment backed expectations*. While the US Supreme Court has not applied these two filters for a specific takings case, lower courts have consistently held that exclusive agricultural zoning does not in fact deprive the owner of all economic potential since farming is a viable activity. There would be conceivable circumstances under which that condition would not hold, but none before the courts as yet. The *Penn Central* test is seldom applied since farmland is bought for farming or zoning restrictions already in place would remove any opportunity for higher expectation reflected in investment decisions (Cordes, 2001). A recent U.S. Supreme Court decision in Rhode Island has the potential for affecting exclusive agricultural zoning ordinances by holding that a land use restriction in place at time of purchase need not preclude a takings claim by the new owner. This case seems to strengthen the

two-fold legality test of Lucas and Penn Central for all future takings cases. The opinion goes on to insist, however, that existing land use restrictions be a factor in any future examination of investment backed expectations. Thus, the Rhode Island case does not ignore the Anotice≡ of existing zoning in considering investment behavior of the landowner, but does go beyond previous lower court precedents in protecting the owner=s right to a takings claim. At the same time, this case strengthens the Lucas filter of economic viability.

On balance, then, is agricultural zoning legally A fair?≡ Cordes argues that A Despite the shake-up created by *Palazzolo*, it is reasonable to predict that the vast majority of agricultural zoning restrictions, if done pursuant to sound planning and ensuring that the property is suitable for farming, should still be constitutional≡ (Cordes, 2001, p.9). No landowner should expect to be totally free of restriction to protect the rights of others in today=s society. That just goes with the territory. Any rule change implies gainers and losers, and over time everyone should expect to come out ahead once in a while.

Several states have enacted property rights protection statutes to alter the balance of fairness between landowners and community. These give greater access for landowners to legal redress for alleged unfairness of regulations that affect an owner=s options. The Florida statute establishes a procedure by which owners whose property rights are A inordinately burdened≡ by government regulation may seek compensation. A majority of Florida legislators and their supporters presumably feel that open land zoning is unfair and constitutional protections too burdensome and uncertain for the landowner to pursue. The major effect of the law has been to dissuade some local governments from trying to preserve farmland or control growth (see Libby, 1996). The catch is that it only applies to state and local laws passed after May 11, 1995 and excludes transportation regulations. If the landowner rejects what the circuit court feels is a reasonable compensation, he or she pays the court cost. The Texas statute establishes a 25% threshold on land value reduction attributed to regulation, with the burden of proving harm borne by the landowner.

The most recent addition to the state landowner protection actions is the constitutional amendment passed by Oregon voters on November 7, 2000. This provision seems to protect landowners from *any* loss of value attributable to state or local government regulation. Washington state voters had defeated a similar measure in 1995. Wording of the ballot initiatives themselves had much to do with the different results -- a Ayes≡ vote in Oregon required A state, local government pay property owner if law, regulation reduces property value.≡ A A no≡ vote rejects that requirement. The Washington vote began as a law passed by state legislators to have the same sweeping effect as the Oregon amendment. The public referendum in Washington came as an action to repeal that legislation, thus opponents had a role in framing the issue on the ballot. The language: A The Washington State Legislature has passed a law that restricts land use regulations and expands governments= liability to pay for reduced property values of land or improvements thereon caused by certain regulations for public benefit. Should this law be approved or rejected? ≡ (Kendall and Dorman, 2001). Language does make a difference.

Any conclusions we might draw about public views on the fairness of zoning and other regulations in Washington and Oregon must be modified by the information given to voters in the two states. Washington voters were asked to trade off public gain with private cost while Oregon voters simply responded to the suggestion that taxpayers should pay whenever public regulation reduces private property value. The Oregon amendment was subsequently declared unconstitutional by a state circuit court judge on the grounds that the ballot measure inadequately explained to voters the changes to the Oregon Constitution. Several environmental groups joined this action. A major consideration, though, was the likely public cost of defending against an endless stream of lawsuits. Virtually *no* public restriction of land use, no matter how reasoned or appropriate, could survive the zero impact test. The supporters have not given up, however, and a similar though more carefully crafted measure may be on the state ballot in 2002 (Bowers, 2001).

What about the economic aspects of fairness? The usual assumption is that any policy-driven restriction on the options available to the landowner would mean a loss of wealth to the owner. In fact, zoning can expand opportunities in some cases, by avoiding conflict with non-farm neighbors and creating a positive environment for investment in the farm enterprise. USDA rural zoning expert Erling Solberg presented the argument nearly 35 years ago, "Farmers need first to realize that absence of zoning offers no protection ... it permits their neighborhoods to become dumping grounds for ... activities that are prohibited elsewhere" (Solberg, 1967). Further, lack of clarity of future land use patterns can discourage on-farm investment. Why invest if the future is so uncertain? The faint possibility of a high value sale for development can seem more attractive than continued farming.

Farmers have expressed a willingness to share in the cost of guiding land use. A recent national survey of farmland owners indicated that while 13% preferred letting the market determine how to protect farmland from development, 58% preferred consistently implemented regulation (Esseks, *et al.*, 1998). Over half of Ohio Farm Bureau members of county advisory councils supported stronger county or township zoning (Ohio Farm Bureau, 1998). These farm people seem to feel that rural zoning is both effective and fair.

The land market may pick up some of these benefits of land restriction. Analysis of land values on farms zoned for agriculture in Baltimore County, Maryland revealed that the more restricted land actually sold for a higher price than less restricted land. Those parcels zoned to permit one residence per five acres sold for \$6282 per acre, while farmland zoned for 1 residence per fifty acres brought \$7097 an acre (Bowers, 2001). Henneberry and Barrows (1990) found a similar market effect in their analysis of farmland in Wisconsin.<sup>5</sup> Zoned farmland offers a different mix of services than land in an area without zoning, and reduced uncertainty of future land use may be worth something to buyers. Some of that price effect may be explained by uneven implementation of local zoning. That is, if landowners feel that a rezoning or variance may be granted when future development is likely they would be willing to pay a little more to capture

---

<sup>5</sup>That result in Wisconsin may be partially explained by the fact that use value assessment in that state is tied to the existence of local agricultural zoning. Thus the higher land price may in part reflect capitalized property tax savings.

that possibility for specific acres. No assumptions are made here regarding zoning implementation in particular places, but willingness to pay for specific parcels is a function of expected future returns to those parcels within the prevailing institutional setting. At least some of that price effect reflects demand for land that has a relatively secure future in productive farming without the conflicts of expectation and values that come with scattered rural development. The Henneberry and Barrows study found that zoned farmlands further from a city had a greater increase in value than smaller parcels nearer the city where the future in farming is already less certain.

Is PDR Fair? Here, the general response from economists is of course, since society is paying for the non-market services it gets from the farmland.≡ Preserving farmland for future food security is a public benefit, appropriately paid for by the public≡ (Tweeten, 1998, p.20) And I thought economists avoid giving judgments on who should pay and who should gain. Economic welfare criteria to support the central icon of efficiency include the possibility that gainers can compensate losers from a particular change and still achieve the great normative goal of efficiency.

Since all purchase of development rights programs are voluntary, it would be difficult to conclude that PDR is unfair to the landowner. The owner can sell development potential at a price reflecting the current difference between farm and full market value, or *not* sell. He or she decides whether recouping the current development value is more attractive than waiting on the possibility that someone in the future will really capitalize that higher value. The problem with the latter option is that the farmer must change his way of life to cash in, and there is no assurance that such development will really occur on his land anyway. The farmer must pay capital gains tax on the development rights payment, though the payment may come in installments over several years. The owner may choose to donate some portion of the development value, reducing her tax exposure, up to 30% of household income over six years.

But, you might say, selling development rights lowers the total property value by that amount, affecting the owner's borrowing capacity, net worth, and other indicators of well-being. That of course depends on whether future returns to development value are greater than returns to the development rights payment that the farmer receives. Further, there is evidence that sale of development rights does not always reduce property value, or at least not by the full sale price. Nickerson and Lynch (2001) found that Maryland farmland on which development rights had been sold retained much of that value in the larger parcels, further from a city. Thus the development restrictions were not fully capitalized in land value. They suggest that some of that effect may come from the expectations by landowners that the PDR is not really permanent and that some day the owner may again be able to sell for development. Further, a protected parcel of good farmland with a residence may be especially attractive to a land baron≡ from Washington or Baltimore seeking a rural estate with little development around it. Such a person would likely pay top dollar for the opportunity.

Most agricultural conservation easement programs have escape clauses. If there is clear hardship or the protected farmland is surrounded by development and becomes unviable, the easement



may be extinguished under rules that vary from state to state. Massachusetts requires specific legislation to reverse an easement sale. Maryland and Pennsylvania require a 25-year waiting period. New Jersey has no escape clause at all (Daniels and Bowers, 1997). The possibility of extinguishments could increase land value slightly and make easement programs somewhat more attractive to the farmer.

If PDR is unfair to farmers, they do not realize it. There are generally more farmers willing to sell their development rights than there is money to buy them.

What about the income distribution effect of PDR programs? Since purchase dollars must come from some tax source, conclusions about fairness will depend on the particular revenue instrument used and who gets the payment. PDR programs seeking to protect agriculture generally give priority to large parcels of productive land, close to other protected land, with evidence that they have a good future in farming. We might predict that these are the farms producing some of the highest farm incomes and can gain the most from the tax advantages available. Scenic quality is important, but these programs are generally sold as ways to help preserve an important agricultural industry. Smaller farms, on less productive soil, particularly in areas with little development pressure, will not see much of the PDR money. These programs are not intended as assistance to low income or small farms, and it is unlikely that they accomplish that purpose. Large livestock farms, on the other hand, often carry political baggage and will be less desirable than farms with a few cows or horses that contribute to the scenery.

Local programs drawing on a targeted increase in sales tax may have a negative income distribution effect. Special increments on the local property tax may have a similar distributional impact. Pennsylvania has a surtax on cigarettes as a source of funds for buying development rights -- that too could cost the poor more than the rich. Maine depends on interest on debt incurred on a state issued credit card. Maryland raises funds through a special farmland protection license plate. Several use transfer taxes on all real estate transactions and special taxes imposed on the conversion of farmland. The distributional effects of programs that rely on sale of state or municipal bonds are less clear and would depend on the tax structure of the governmental unit paying the interest on bonds.

What About ASmart Growth Laws? What are the equity implications of urban growth boundaries and other tools of suburban growth management? A key purpose for these programs in Oregon, Maryland, Kentucky and more recently Tennessee is to protect farmland and other open space by controlling metropolitan expansion. A favorite theme for those opposing controls on the pattern and pace of development outside of urban areas is that such controls tend to be elitist, exclusionary and anathema to affordable housing<sup>6</sup>. The argument is that attempts to

---

<sup>6</sup>The National Association of Home Builders has devised its own definitions of ASmart growth to emphasize freedom of location and house selection. ANAHB recognizes the right of every American to have a free choice in deciding where and in what kind of home to live... Despite concerns about growth, the American dream of owning a detached single-family home is alive and well, and people over-whelmingly reject higher density housing both for themselves

concentrate development, protect open space, and prevent sprawl reduce the supply of developable land thus causing price increase in the face of excess demand, and at the same time raise the value of land close to open space to reflect the amenity (Brueckner, 1990). Growth controls also reallocate the gains in land value, some landowners gain while others lose. The theory of growth controls is that they will reduce the externalities of unguided growth, and were these external costs and benefits actually part of the land price, an efficient land use pattern would evolve without zoning or other regulation, leaving out consideration of whether the resulting distribution of impacts is fair.

Affordable housing is a policy target in some areas having strong growth controls. New Jersey courts have a more than 30-year history of scrutinizing local zoning statutes for their impacts on affordable housing. The New Jersey Fair Housing Act of 1985 established procedures by which each municipality would accept an obligation for providing housing for low income people. The Council on Affordable Housing certifies housing guidelines contained within a particular zoning ordinance as something of a shield against litigation. The usual guideline is 20% of housing units within a municipality and these quotas are tradable across community boundaries. Thus, New Jersey has decided that any local zoning that fails to meet housing needs is unfair (Rubin, et al., 1990). Montgomery County, Maryland has its Moderately Priced Dwelling Unit Ordinance, passed in 1973, to accomplish basically the same thing. Under their program, builders must give first purchase option to the Housing Commission of the county for a portion of the 15% of all new housing targeted for moderate income households, those in the lowest third of income levels. These units become part of the county's inventory for low income rentals (Rusk, 1999, p. 183-200). By interspersing low income housing throughout the community, there is no impact on value of unsupported units or poverty concentration in certain areas. These are extraordinary efforts to improve the fairness of growth controls.

Various recent articles in the popular media have referred to the effect of Portland, Oregon urban growth boundary on housing prices. The general message is that while urban growth limits have important aesthetic and development benefits for existing housing, there is a downside in new housing cost unless there is specific policy to counter that tendency. A recent economic analysis from Tufts University points to the utility of urban sprawl, since it provides more low income housing than is available under many growth management schemes. The study compared spread-out cities with cities where growth is more tightly managed and concluded that the opportunities for low income people, particularly minorities, were better with sprawl (Flint, 2001).

### **Insights for Future Farmland Policy**

Conclusions about both efficiency and equity are central to future policy. Efficiency implies that benefits of farmland protection exceed cost, *to whom-so-ever they accrue*. The idea is that somehow we are better off as a society with these programs than without them.

---

and their communities" (NAHB, 2000, p.10, 14).

Equity gets at the notion of who will pay (or be inconvenienced) to provide any net benefits of farmland protection programs. That is the politics of the issue. People tend to oppose in principle those changes that cost them, and maybe their neighbors, more than they gain. The rational homebuilder will oppose growth controls, unless they are part of a long range planning strategy that meets the housing needs. The rational farmer will support those measures that enable him to make the choices necessary to remain viable, including the opportunity to sell to the highest bidder under the right circumstances. The rational land use attorney will keep the pot boiling, articulate forcefully on all sides of the issues, to keep the opportunities for litigation alive and well. The rational economist will continue to seek truth, preferably measured in monetary units. I offer the following observations about future policy.

Rationale for Farmland Protection is Strong. There are plenty of understandable reasons for having farmland policy. These reasons fit the conventional economic paradigm as farmland services that are not reflected in land price. AServices≡ in this instance include an intergenerational sense of security that future consumers will have enough farmland. And they include our current interest in an open and attractive countryside, a more thoughtful pattern of development, and the ecological services of the working lands. The Afood supply≡ issue is largely a red herring in this discussion. Critics expend much energy trying to show that there is no food or cropland shortage (Staley, 2000). That is true, but largely beside the point. Farmland protection policy is on the local, state and national agenda and it will be there for a while.

Continuing Priority on Purchase of Rights, but with Stronger Regulatory Component. PDR programs are popular and will continue to be so. They seem both efficient (internalizing the external benefits) and equitable (society wants, society pays). But unless purchase programs are integrated with effective yet flexible rural zoning, their effect will be minimal. There is simply too much land to buy and the price is too high. Scattered islands of farmland under easement will accomplish little. In fact these protected farms will attract suburban development seeking the viewshed of farmland. Priority should go to lands identified in a thoughtful planning process as having a future in farming, in meaningful blocks as “agricultural security areas” or similar designation, and at least some of it protected with true agricultural zoning. PDR without good zoning is better than nothing, but cannot achieve its full land use potential. PDR should not be used to Abuy our way out of bad zoning≡ (Bowers, 2001). Techniques must complement each other, not be substitutes.

Exclusive Agricultural Zoning is Both Valid and Acceptable. It is easier, and perhaps fairer, to establish real agricultural zoning the first time than to later correct with downzoning. The latter may require development rights transfer or mitigation to work politically. But at base, zoning is a reasonable expression of the public interest in the services generated by private lands. It can give assurance both to the farmer and to the community and need not entail a major wealth transfer from owner to community. The key is consistent implementation once an ordinance is in place. The authority to zone is available just about everywhere<sup>7</sup>; its application is well tested in

---

<sup>7</sup>Ohio is an exception. Enabling legislation for county and township zoning includes

the courts and with very few exceptions has been determined to be reasonable (and fair?). An ordinance, like some in Ohio, that basically says anything goes may be worse than no zoning at all. It is an illusion of management without the substance.

Move Toward Full Marginal Cost Pricing of Development. There is ample evidence that new residential development outside of the municipality costs more to service than it generates in new property tax revenue (see AFT, 1999, p.7-8). It depends of course on the type and value of housing and the services needed by residents, but the general principle holds. Even most economists seem comfortable with the notion that a fair development process would have new residences pay the additional cost they impose on the community. This could be accomplished through a system of development impact fees that is area or state wide (to avoid shifting development to communities without fees) and accurately tied to the measured cost of new development. Fees can be an important source of revenue to finance development and internalize at least some of the external cost of developing rural areas (see Brueckner, 1997).

Learn from International Experience. Other nations of the developed world have done far more with growth management and farmland protection regulations than we have. In the first place, no other nation must deal with the takings issue that absorbs so much intellectual energy in the U.S. No such presumption of over-riding private right exists in Europe. Further, home rule and annexation authority have no counterparts in other parts of the world. Unplanned farmland conversion is virtually unheard of in these other countries. Tough provincial level controls exist throughout Canada. There are strong limits on farmland conversion in Germany, Israel, Japan and the U.K. There is strong emphasis on public subsidy of farmer behavior that will assure provision of the amenity values (OECD, 1998). Centner has proposed introducing German concepts of protected agricultural areas with strong right to farm provisions into U.S. policy options (1993). The next round of U.S. farm legislation will consider stewardship payments somewhat in the European mold.

These are reasonably civilized and successful nations of the world, with strong protections for civil rights and the market system. They have reached accommodation with demands for food production and the amenity services of farmed land that can be instructive for the U.S. They employ a mix of generous amenity subsidies and regulated conversion that is becoming more

---

A general health, safety and morals as rationale for land use regulations, but not “general welfare.” Lacking this specific authority, Ohio townships and counties (where most of the farmland is) have been reluctant to try real agricultural zoning. Those that have tried have found the courts to be unsympathetic (Meck and Pearlman, 2000). Thus lot size seems to be the only variable in Ohio rural zoning.

evident in emerging U.S. policy.

## **REFERENCES**

- American Farmland Trust. *Saving American Farmland: What Works*, Northampton, MA: The American Farmland Trust, 1997.
- Bowers, D. "Oregon Property Rights Measure Ruled Unconstitutional," *Farmland Preservation Report*, 11:5, 2001.
- Brueckner, J. "Infrastructure Financing and Urban Development: The Economics of Impact Fees," *Journal of Public Economics*, 66:383-407.
- Centner, T. "Circumscribing the Reduction of Open Space by Scattered Development: Incorporating a German Concept in American Right to Farm Laws," *The Journal of Land Use and Environmental Law*, 8:2, pp. 307-324.
- Cordes, M. "Agricultural Zoning: Impacts and Future Directions," unpublished paper presented for the conference "Protecting Farmland at the Fringe: Do Regulations Work?," Baltimore, MD, September 5-7, 2001.
- Costanza, R., R. de'Arge, R. deGroot, S. Farber, M. Grasso, B. Hannon, K. Linsburg, S. Noem, R. O'Neill, J. Paruelo, R. Raskin, P. Sutton, and M. vandenBelt. "The Value of the World's Ecosystem Services and Natural Capital," *Nature*, 387(15):253-260.
- Daniels, T. and D. Bowers. *Holding Our Ground: Protecting America's Farms and Farmland*, Washington, DC: Island Press, 1997.

- Esseks, D., S. Kraft and L. McSpadden. "Owners' Attitudes Towards Regulation of Agricultural Land," CAE Working Paper 98-3, DeKalb, IL: Center for Agriculture in the Environment, May 1998.
- Flint, A. "Sprawl Lets Blacks Buy Homes, Study Says," *The Columbus Dispatch*, September 9, 2001, p. D4.
- Frank, R., T. Gilovich and D. Regan. "Does Studying Economics Inhibit Cooperation?," *Journal of Economic Perspectives*, 7:2, pp. 159-171.
- Gardner, D. "The Economics of Agricultural Land Preservation," *American Journal of Agricultural Economics*, December, 1997, pp. 1027-1036.
- Henneberry, D. and R. Barrows. "Capitalization of Exclusive Agricultural Zoning into Farmland Prices," *Land Economics*, 66:249-258.
- Kendall, D. and C. Dorman. "Taking Community Rights by Initiative: Lessons from Oregon, Arizona and Washington," Washington, DC: Community Rights Counsel Mid-Year Seminar, May 2001.
- Libby, L. "In Pursuit of the Commons: Toward a Farmland Protection Strategy for the Midwest," CAE-Working Paper 97-2, DeKalb, IL: Center for Agriculture in the Environment, 1997.
- Libby, L. "Property Rights – the Public-Private Balance," *Land Use Decision Making – Its Role in a Sustainable Future for Michigan*, Conference proceedings edited by S. Batie, K. Norgaard and M. Wyckoff, East Lansing, Michigan: Michigan State University Extension, 1996.
- Ohio Farm Bureau Federation. "Farmland Preservation: Defining our Community," Report of Advisory Council Discussions, Columbus, OH: Ohio Farm Bureau Federation, January 1998.
- Organization for Economic Cooperation and Development. *Adjustment in OECD Agriculture: Reforming Farmland Policies*, Paris, France: OECD, 1998.
- National Association of Home Builders, "Smart Growth," Washington, DC: National Association of Home Builders, 2000.
- Nickerson, C. and L. Lynch. "The Effect of Farmland Preservation Programs on Farmland Prices," *American Journal of Agricultural Economics*, 83(2): 341-351.

- Rubin, J., J. Seneca and J. Stotsky. "Affordable Housing and Municipal Choice," *Land Economics*, 66:3, 1990.
- Runge, S., T. Duclos, J. Adams, B. Goodwin, J. Martin, R. Squires and A. Ingerson, "Public Sector Contributions to Private Land Value, Looking at the Ledger," *Property and Values: Alternatives to Public and Private Ownership*, edited by C. Geisler and G. Daneker. Washington, DC: Island Press, 2000.
- Rusk, D. *Inside Game, Outside Game: Winning Strategies for Saving Urban America*, Washington, DC: Brookings Institution Press, 1999.
- Solberg, E. *The How and Why of Rural Zoning*, Agriculture Information Bulletin 196, Washington, DC: Economic Research Service, U.S. Department of Agriculture, 1967.
- Staley, S. "The Vanishing Farmland Myth and the Smart Growth Agenda," Reason Public Policy Institute, Policy Brief Number 12, January 2001.
- Tweeten, L. *Competing for Scarce Land: Food Security and Farmland Preservation*, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Occasional Paper ESO #2385, August 1998.
- Varian, H. *Intermediate Microeconomics*, New York, NY: W. W. Norton and Co., 1996.