

Perspectives on agricultural land policy

How important the need is to preserve prime agricultural land depends on the vantage point from which one views agricultural land and land policy

WILLIAM D. ANDERSON, GREGORY C. GUSTAFSON, and ROBERT F. BOXLEY

S O oft in theologic wars, The disputants, I ween, Rail on in utter ignorance, of what each other mean, And prate about an Elephant

Not one of them has seen.

From "The Blind Men and the Elephant" by John Godfrey Saxe We learn from the well-known Hindu fable that the six learned blind men of Hindustan observed that an elephant was "very like a wall... a spear ... a snake ... a tree ... a fan ... a rope. . . ."

Though each was partly in the right . . . all were in the wrong!

As with the elephant, there are many views about what agricultural land policy is. Each view is conditioned by the observer's vantage point and his reaction to the observation. These different perceptions complicate the semantics of agricultural land policy, particularly as each observer thinks he sees the elephant.

Land as a Production Resource

Questions are often raised about the capacity of the nation's land resources to meet foreign and domestic food and fiber demands.' Some argue that if agricultural land continues to be converted to nonagricultural uses as rapidly as in recent years, there will eventually be insufficient land in agriculture to meet future needs. Information available on past and projected land use changes in the United States tends not to support this point of view.

Land Use Trends and Projections

The allocation of land among major uses in the United States did not change substantially between 1950 and 1969 (Table 1). As in 1950, about one-fifth the total land area in 1969 was cropland. Grassland pasture and range accounted for about onefourth, forest land about a third, and wasteland about an eighth. Land in urban uses doubled between 1950 and 1969 but still occupied only 1½ percent of the 50-state land area in 1969.

Cropland is the most important of the major land use categories in the production of food and fiber. Cropland used for crops declined from a

William D. Anderson is an attorney, Gregory C. Gustafson is an economist, and Robert F. Boxley is leader of the Resource Organization and Control Program, Natural Resource Economics Division, Economic Research Service, U. S. Department of Agriculture, Washington, D. C. 20250. Views expressed are the authors' and do not necessarily represent those of USDA.

record high of 387 million acres in 1949 to 333 million acres in 1969 (Table 2). By 1974, however, cropland used for crops had increased to 360 million acres in response to higher farm prices and the subsequent release of idle cropland from federal farm supply management programs.

Between 1949 and 1974, crop production per acre increased more than 60 percent. This increase in productivity was more than enough to maintain stable food and fiber prices during the 1950s and 1960s despite population increases and cropland declines. Farm output increased 40 percent between 1950 and 1970, while population increased 34 percent (9).

Land required for urban and related uses is projected at 81 million acres by 2000, an increase of 21 million acres over 1969. Between 1959 and 1969, land in urban and related uses increased 8.6 million acres. Only part of the land converted to urban and related uses has been taken from operating farms. It is not expected that future urbanization will substantially affect the distribution of land among major uses. In a recent study of land urbanization in Standard Metropolitan Statistical Areas, Otte (21) summed up the situation this way:

"The amount of agricultural land taken each year for urban uses has had little impact on the total supply of U. S. cropland. In recent years, five or six times the quantity of cropland so taken was shifted to lower intensity agricultural or forestry uses, or was idled simply because cropping was not profitable. Irrigation, drainage, and clearing add three times as much land annually to the cropland base as urbanization absorbs."

Preliminary Economic Research Service (ERS) baseline projections indicate that U. S. cropland requirements will be 316 million acres in 1985 and 352 million acres in 2000. These projections are based on estimates of future yields for individual crops, estimates of per capita consumption levels, and assumptions of moderate rates of growth in disposable per capita income (3 percent a year), population (2.1 births per woman), and agricultural exports.¹

The effects of a low rate of domestic population growth and a high rate of growth in export demand for farm products upon cropland requirements also have been explored. Under the same assumptions specified for the ERS baseline projections, except a low population growth rate (1.8 births per woman, consistent with the recent past) and a high rate of growth in farm exports (due to a high level of foreign market demand and/or increased nonmarket exports to help mitigate world food shortages), cropland requirements would be 342 million acres in 1985 and 365 to 375 million acres in 2000.²

Barring major crop failures, there should be no problem in meeting the 1985 cropland requirement. The acreage potentially available for crop production exceeds projected requirements for the near future (16).

The long-term situation is more uncertain. The potential supply of cropland will be adequate to meet projected requirements in 2000 given a low rate of domestic population growth and moderate rates of growth in income and farm exports. However, the cropland base may be inadequate to produce enough food and fiber to maintain domestic commodity prices near current levels under a high income, high population, high export scenario. The result would be a variety of possible first- and second-order consequences including higher food prices, shifts in domestic consumption patterns, and reduced farm exports.

Land Ownership and Production

Implicit in most projections of future cropland availability is the assumption that decision-makers will continue to respond to market and nonmarket forces as they have in the past. Since 99 percent of all cropland and over half of all grazing and forest land in the United States is held in private ownership, it is these owners —and their expectations and motives —that ultimately determine how much and under what conditions land will be available for crop production.

Unfortunately, we know very little about the characteristics of these private landowners. The Census of Agri-

culture provides some ownership information, but it is confined to land currently used for agriculture and deals with farm operators rather than farmland owners. It does not provide information on non-operator landlords, for example; yet non-operator landlords owned nearly one-third of all farmland in 1969 and supplied over 84 percent of the 404-million-acre pool of rented land used for agricultural production (Figure 1). In terms of future agricultural production, it would also be useful if we had more information about land potentially available for agricultural production but not now counted as land in farms--land now held as a speculative asset, for example, or for recreational uses. Trends in non-resident and alien landownership are additional factors that may impact on agricultural land policy. These need to be monitored more closely.

At one time so many Americans were engaged in agriculture that an even distribution of agricultural land would have gone a long way toward equalizing wealth and spreading land use decisions widely among citizens. This is no longer the case. Over half the land area of the United States is owned by a small proportion of the population. A precise count is not available, but Wunderlich (32) estimated there to be fewer than 4.3 million farmland owners-less than 2 percent of the population or less than 8 percent of the households in the United States. Within this group, the distribution of landholdings and economic power is further concentrated. The agricultural land policy arena thus is large, but compared to the number of people affected by the decisions, it has a relatively few and declining number of participants.

Agricultural Land and Land Policy

While agricultural land is an important production policy variable, it can also be a factor—a means or an end—in other policy arenas, particularly the land use policy objectives as they relate to agricultural land may be to preserve open space, maintain productive soils in agricultural use, control urban sprawl, enhance the state or local economy, improve air and water quality, improve the visual quality of the landscape, or protect or encourage a local supply of fresh food.

¹The moderate growth rate in exports assumes the following rates of increase in major crops exported in 2000 over exports in the 1972-73 crop year: soybeans, up 207%; corn, up 65%; rice, up 61%; wheat, down 22%.

²The high export growth rate assumes the following rates of increase in major crops exported in 2000 over exports in 1972-73: soybeans, up 255%; corn, up 155%; rice, up 76%; and wheat, up 25%.

Although proponents of land use policy may share these objectives, their relative importance appears to vary at different levels of government and among units at the same level of government. In addition, distinctions between the means-ends functions served by agricultural land are rarely made in deliberations about land use policy because of the multidimensional nature of public objectives.

The National Perspective

For many years the federal government has had a pervasive influence on how land is used in this country. During discussions of proposed national land use policy legislation in the 92nd Congress, a list was prepared of about 75 major federal legislative enactments, policy statements, and government reorganizational efforts for the period 1944-71 that related to land use (31). Within the executive branch, 23 federal departments and independent agencies were identified as having programs related to land use policy and planning; 112 federal land-oriented programs were identified (31).

If one considers as land use policy any program or action that has an effect on land use, then we have had many, including national agricultural land use policies.

For the last 5 years, however, the debates in the Congress over national land use policy have focused on a particular type of policy (13). The basic social concerns that led to the legislative proposals were environmental, and environmental protection has been a major objective in all the major proposals. None of the proposals has focused on a policy of land management primarily for production purposes in the manner, for example, of supply management programs in agriculture.

The proposals universally recognize the primacy of state authority under our constitutional system to control private land use. The approach is to provide federal grants to states that will encourage "process" reform and provide impetus for initiatives underway in some states (4) to take back certain land use control authorities historically delegated to local govern-

Table 1. Trends in major uses of land, selected years, 1950-69.

Land Use	1950	1954	1959	1964	1969			
	million acres							
Cropland ^a	478	466	458	444	472			
Grassland pasture and range ^b	632	634	633	640	604			
Forest land ^e (grazed)	721 (319)	727 (301)	$728 \\ (245)$	727 (225)	723 (198)			
Special areas ^d	138	143	151	168	178			
Miscellaneous other land ^e	304	303	301	287	287			
Total	2,273	2,273	2,271	2,266	2,264			

Source: (17).

"Cropland harvested, crop failure, cropland idle or fallow, and cropland used only for pasture. Acreages shown were obtained from the Census of Agriculture, U. S. Department of Commerce, and adjusted for underenumeration.

^bCrassland and other nonforested pasture and range.

^eExclusive of forest land in parks, wildlife refuges, and other special use areas. ⁴Includes such uses as urban areas, highways and roads, parks, wildlife areas, military reservations, and farmsteads.

"Includes deserts, swamps, bare rock, tundra, and similar areas generally having low value for agricultural purposes.

Decreases in the land area mainly represent increases in the water area of artificial reservoirs. Changes in methods of area measurement used by the Bureau of the Census, together with revisions for Alaska, also account for part of the decrease.

Table 2. Major uses of cropland, selected years, I	1949-74.
--	----------

Cropland Use	1949	1954	1959	1964	1969	1972	1974	
	million acres							
Harvested	352	339	317	292	286	290	322	
Crop failure	9	13	10	6	6	6	10	
Cultivated summer fallow	26	28	31	37	41	38	28	
Total for crops	387	380	358	335	333	334	360	
Soil improvement and idle cropland	22	19	33	52	51	48	26	
Total cropland, excluding pasture	409	399	391	387	384	382	386	

Source: Based on data from the Statistical Reporting Service and Census of Agriculture. ^aPreliminary data from the August 1974 report of the Statistical Reporting Service.

ments. It has been characterized as federal enabling legislation to encourage states to exercise state's rights (30).

The national policy is not intended to create a national design for the nation's landscape. The proposals do not specify how much land must be devoted to a particular use or where that use should be located. Agricultural land is mentioned in several proposals in the context of "areas of critical environmental concern" to be defined and designated by the states.

While the focus of current federal bills is on procedure rather than substance, Congress may subsequently enact substantive national land use policies (30). For example, the Jackson Bill, as it passed the Senate, provided for a feasibility study of national land use policies by the Council on Environmental Quality and specified 12 policies to be addressed. Among the 12 are policies that "preserve the sustained yield quality of renewable resource lands" that, as defined, include "significant agricultural and grazing lands."

At the moment Congress has not enacted national legislation, and discussion of the issues continues.

Some observers believe there should be more national concern about the spatial distribution of agricultural production. The Council on Environmental Quality raised the issue in its first annual report in 1970, citing the effect of monoculture and the disappearance of farmland around cities as major rural land use problems (12). While the issues cannot be adequately treated here, the agenda for future policies surely will include them.³

The State Perspective

Most current discussions of land use policy focus on "the emerging role of the states" (30). Actually many states have had an agricultural land policy for some time-a policy of preserving agricultural land. The policy

³Initial work on the monoculture issue was begun by a USDA-sponsored Task Force on Spatial Heterogeneity in Agricultural Landscapes and Enterprises, which issued a report in October 1973 (29). Otte recently examined population distribution, land use, land quality, and farm output in Standard Metropolitan Statistical Areas (21). Earlier studies looked at urbanization and land conversion (14, 15, 18). To summarize the findings, no major national problem was uncovered, but all would agree that more research and better data are needed.

evolved with the development of differential property tax assessment of farmland. Between 1956, when Maryland passed the first law, and November 1973, 31 states enacted some form of differential or use-value assessment law as a modification of their real property tax code (20). These are truly state policies in the sense that they were developed independent of and unrelated to any federal programs or policies.

Among the reasons for widespread state legislation on differential assessment of agricultural land are (1) a concern for the premature and inefficient conversion of agricultural land to urban-suburban uses in conjunction with the belief that reduced property taxes on farmland can affect the allocation of land among uses, (2) a view that taxes on farm property are too high in relation to farm income, and (3) a preference for incentives rather than controls, which are more acceptable politically.

Differential assessment laws are of three general types (20): (1) preferential assessment, where land is valued according to its current use, and no penalty is exacted if it is later converted to another use; (2) deferred taxation, where land is taxed on its current use value, but a penalty is charged against the land or its owner when that use changes; and (3) restrictive agreement, where the landowner and the local government agree to restrict use of the land in return for differential assessment.⁴

The impetus for differential assessment universally appears to stem from urbanization pressures on farmland. The place of differential assessment in land policy has always been clouded, however, because of the dual objectives sought by the legislation—tax equity and improved land use.

Of the three approaches, preferential assessment deals directly with the tax equity issue and least effectively with land use. In practice, restrictive agreements appear more "cost effective," although deferred tax laws probably could be drafted to be as effective as the current restrictive agreement laws (20).



Figure 1. Ownership and tenure of U. S. farmland, 1969 [developed by Gene Wunderlich, ERS, from the Census of Agriculture 1969 (θ)].

Evidence is mixed on the effectiveness of differential assessment laws in preserving agriculture. "People own farmland for a wide variety of reasons. Some reasons make owners sensitive to changes in tax costs; others do not" (20). The general concensus is that differential assessment laws must be combined with other tools to maintain rural land in agricultural and other open space uses.

Agriculture's Quiet Revolution

For further insight into state agricultural land use policy, we turn to three states that have developed or are attempting to develop statewide programs to preserve agricultural land: (1) California, which has had nearly 10 years of experience with a restrictive agreement type of differential assessment law; (2) New York, which enacted legislation in 1971 that is regarded as a compromise between farm value assessment and land use regulation; and (3) New Jersey, which has had experience with a deferred tax law, has a proposed program to preserve a permanent agricultural land base through the purchase of development easements, and has endorsed policy elements that may suggest what other states will want to consider.

California. The California Land Conservation Act of 1965 authorizes local governments to create "agricultural preserves" and contract with volunteering landowners to, in effect, forfeit their development rights for a 10-year period in exchange for a usevalue assessment. The contract is renewed annually for an additional year. Thus, unless there is a notice of nonrenewal by either party, a continuous 10-year contract is in effect. In case of non-renewal there is a gradual increase in the property tax rate over the remaining period of the contract until the rate based on market value is reached. Cancellation of a contract, permitted under certain conditions, obligates the landowner to pay a penalty of 50 percent of the new assessed value of the property unless deemed in the public interest at the local level and a waiver of penalty is granted by the director of the California Resources Agency (19).

The California program is the largest of the differential assessment programs and is also among the most restrictive on landowners. In fiscal year 1973-74, 12.6 million acres of land were under contract—about 35 percent of the state's farmland. Thirty percent of the land under contract was

⁴In November 1973, 9 states had preferential assessment laws, 18 had deferred taxation, and 10 used restrictive agreements. Of the latter group, 6 states used the agreements only for some lands and gave preferential assessment or deferred taxation to other lands (20).

prime land.⁶

Forty-five of the state's 58 counties participated in the program. The amount of land in the program tripled over the last 5 years, and prime land increased from 13 percent of all land under contract in 1969-70 to 30 percent by 1973-74.⁶

The state contributes significantly to the program's cost. In fiscal 1973-74, the state redistribution appropriation to school districts and local governments could have been as high as \$22 million—half the estimated \$44.7 million in local property tax revenues foregone or shifted due to differential assessment.⁷

While the magnitude of the California program is impressive, several economic studies have questioned its performance as a land use policy tool. An analysis of the program for the 1968-69 fiscal year concluded (10):

"... Initial land sign-ups have been concentrated in below average value nonprime agriculture land located some distance from incorporated areas. Most land under the provisions of the Williamson Act in 1968-69 was probably in little immediate danger of being converted to nonagricultural use. The small proportion of land sign-ups adjacent to incorporated areas indicates that the Williamson Act is not yet accomplishing its objective of discouraging premature and unnecessary conversion of agricultural land to nonagricultural use..."

A more recent study using 1971-72 data also found that the program was not attracting participants in urban fringe areas because, in economic terms, the present value of the reduction in property taxes was not large enough to affect the allocation of land among uses, particularly near areas of anticipated urban growth. In most counties the pattern of land under contract was found to be scattered and discontiguous. The study con-⁵Prime land is defined as land meeting any of the following four criteria: (1) Class I or II of the Soil Conservation Service classification scheme, (2) rates of 80-100 in the Storie Index rating, (3) a carrying capacity of one animal unit per acre, (4) a gross annual revenue of \$200 per acre in unprocessed plant production, or (5) land in fruit or nut-bearing trees, vines, or bushes that have less than a 5-year nonbearing period and return not less than \$200 per acre.

⁸Gustafson, Greg C., and L. T. Wallace. "Differential Assessment as Public Policy: The California Case." Unpublished working paper, 1974. 'Ibid. cluded, however, that the program could be an effective tool in land use policy if implemented systematically, for example, to support agricultural zoning (19).

New York. The New York Agricultural District Law, enacted unanimously in 1971, encourages farmers to preserve "viable agricultural land"⁸ in "districts" through provisions that (6):

1. Permit agricultural value assessments—Farmers may have the value of their land in excess of its value for farming exempt from taxation if they meet certain qualifying requirements and file an annual application.⁹ Land that has received this exemption is subject to a maximum five-year rollback if converted to a nonfarm use.

2. Limit ordinances affecting agriculture—Local governments may not enact ordinances that would restrict or regulate farm structures or farm practices beyond the requirements of health and safety.

3. Instruct state agencies to encourage farming — State agencies must modify administrative regulations and procedures to encourage the maintenance of commercial agriculture to the extent compatible with health, safety, and any applicable federal regulations.

4a. Modify eminent domain proceedings—The right of public agencies to acquire farmland by eminent domain is modified, though not removed. These agencies are required to give serious consideration to alternative areas before good farmland can be taken for public uses.

4b. Restrict public funds for nonfarm development—The right of public agencies to advance funds for sewer, water, and other facilities that would encourage nonfarm development is modified.

5. Limit special service tax assessments on farmland — The power of special districts to impose benefit assessments or special ad valorem levies on farmland for sewer, water, lights, and nonfarm drainage is limited.

The usual procedure for creating a district (minimum eligible size is 500 acres) is by landowner petition to the county legislative body. Extensive review is required involving both agricultural and planning offices in the local and state governments. Approval is required at each level of government. Once approved, the district must be re-examined every 8 years by both levels. Termination, modification, or continuation options are considered.

An alternative procedure authorizes state-initiated districts of 2,000 acres or more of land determined to be "unique and irreplaceable." The law defines "unique and irreplaceable" as "land which is uniquely suited for the production of high value crops, including, but not limited to fruits, vegetables and horticultural specialities."

The New York program is an interesting experiment. As Conklin and Bryant (11) suggested, it is a nonauthoritarian approach, running counter to the currently more popular arguments for extending the use of the police power.¹⁰ Its success will be determined in part by the effect of what has been called a declaration of a "rededication to farming" by people who prefer farming as a way of life. This positive choice, it is argued, will affect the location and investment decisions of both farm and nonfarm people and reduce the uncertainty associated with farming in an area experiencing urban scatteration and speculative forces (11).

By January 1, 1974, 117 districts covering about one million acres had been formed or were in the latter stages of formation. This is about 10 percent of the land in farms in New York (7). Districts have been formed in all agricultural areas of the state except those nearest New York City,

⁸Defined as "land highly suitable for agricultural production and which will continue to be economically feasible for such use if real estate taxes, farm use restrictions, and speculative activities are limited to levels approximating those in commercial agricultural areas not influenced by the proximity of urban and related nonagricultural development."

⁹To qualify a farmer must own 10 or more acres, used the preceding 2 years for agricultural production having an annual gross sales value of \$10,000 or more.

¹⁰The authors report that under a proposed restructuring of planning and land use control laws in New York, all major farming areas would have been included in "areas of critical state concern," and the state would have been authorized, if judged necessary, to exercise the police power to prevent further encroachment of urban uses into farmland. The proposal never came to a vote in the legislature. The district law is regarded as a compromise between that proposal and differential assessment bills patterned after the New Jersey deferred tax law, which had twice passed the legislature and been vetoed by the governor.

such as Long Island (11). The distribution of districts with respect to urbanization appears to be fairly even —about as many in urbanizing areas as in rural areas. While there are some small districts, the statewide average is 10,300 acres; the typical district contains 40 farms, with an average farm size of 257 acres.¹¹

The effects of the districting law cannot be adequately evaluated for some time. The approach is innovative, and participation during the early years of the program has been significant. Proponents acknowledge, however, that districts may not be the tool to preserve agricultural land in areas of "imminent wall-to-wall urban development" (11).

New Jersey. National attention has focused on New Jersey as a result of the report of the Blueprint Commission on the Future of New Jersey Agriculture, released May 1, 1973 (3). Among the commission's recommendations was a land policy for permanent agriculture in the state.

The recommendation called for adoption of a statewide agricultural open space plan to be jointly administered by the state and local municipalities. Each municipality would be required to designate an Agricultural Open Space Preserve within its boundaries containing a minimum of 70 percent of its prime farmland [includes classes I, II, and III land and special cranberry, blueberry, and muck lands as defined by the Soil Conservation Service (3)]. The preserve would become part of the local government's master plan and only agricultural and related open space pursuits would be allowed. If a municipality failed to designate its open space land within 24 months, the state would designate it.

Landowners in the preserve could sell the development easement to their land to a state administering agency or to other purchasers. The compensation for this easement would be the difference between the land's market value and its farm value. The landowner would have the option under the proposal of selling or holding for future sale. In the latter case he would be entitled to the increases in development value that would have occurred had the preserve not been established. Financing would be ¹¹Bills, Nelson. "Extent of Local Efforts to Form Agricultural Districts in New York State." Unpublished working paper, 1974.

through a statewide real estate transfer tax.

The commission considered the transfer of development rights concept¹² and the creation of a financial institution for buying and selling easements¹³ but regarded them as supplemental rather than a formal part of its plan.

As the nation's most densely populated state, New Jersey probably has had more experience than most states with land use planning and controls. The commission endorsed the following elements of the state's land use policy but concluded that a more comprehensive policy was needed to permanently preserve prime farmland: (a) Use-value taxation of agricultural land, (b) open space land acquisition under the New Jersey Green Acres Program, (c) general planning and zoning, (d) dedication of development easements, (e) the agri-city concept under New Jersey's planned unit development authority, and (f) agricultural priority districts. The commission's observations on the various elements may be interesting to other states as they address the same issues (3).

The goal of the New Jersey proposal is to preserve one million acres of farmland as agricultural open space. At least three-fourths of the total would be prime farmland.

The Local Perspective

Historically, the predominant means of controlling land use in this country has been locally administered zoning. It is not surprising therefore that early efforts by local government to maintain rural land in agriculture concentrated upon zoning.

The authorization for local zoning usually comes through state zoningenabling acts. In a study of rural ¹²Transfer of development rights is a system that identifies the right to develop and creates a market for the rights by requiring that owners of developable land purchase the development rights from owners of land in open space preserves as a prerequisite to development. The sale price is determined by bargaining between buyer and seller. The commission concluded that the TDR concept would be useful in certain municipalities but could not be relied upon to fully meet the state policy objectives.

¹³The proposed institution would be funded by private capital and regulated by the state. It would buy easements and hold them for resale to the state, thereby assisting the state administering agency in meeting its cash-flow requirements. zoning-enabling legislation enacted through December 31, 1968, Solberg and Pfister (26) found that 21 states expressly provided for the establishment of agricultural zoning districts. Their study also suggested farmer opposition to zoning in that agriculture was exempt from zoning regulations in over 20 states.

There are at least two distinctively different types of agricultural zoning districts in local ordinances. The socalled exclusive agricultural district restricts land to agricultural and related uses. With the exception of certain public or semi-public uses, all others are excluded. Minimum tract sizes range from 10 to 80 acres (2, 24, 25).

In a study of more than 400 rural zoning ordinances adopted before January 1965, Solberg (24) found exclusive agricultural districts in 55 local ordinances in 15 states. California had this type of zoning district in 23 counties and 7 cities in 1962.

The second general type of agricultural zoning permits a variety of uses, including non-farm residences on small lots, home occupations, and other uses generally found in a residential district. Beuscher (2) suggested that this type of district results from efforts to placate farm landowners' opposition to an ordinance. It is by far the most prevalent form of agricultural zoning.

Quite apart from the political acceptance of agricultural zoning is its acceptance by the courts. This type of regulation is on the cutting edge of "the taking issue."¹⁴ The lack of appellate court cases tends to suggest that agricultural zones generally have not been enforced. In part this can be attributed to fear of the taking clause (1, 5).

Thus, for a variety of reasons, zoning has become unpopular as a technique for preserving agricultural land. This has led to a search for incentives that support protective regulations such as agricultural zoning (22). In areas where permanence is needed to serve open space objectives, strategies to change property concepts have been advocated. The recent task force report (22) sponsored by the Rocke-

¹⁴The issue arises from the Fifth Amendment to the U. S. Constitution, which provides, ". . . nor shall private property be taken for public use without just compensation." The clause limits exercise of the police power. feller Brothers Fund stated, "In time, we believe, ownership of open spaces without urbanization rights should become as commonplace as ownership of land without mineral rights."

Because of the diversity in local situations, it seems clear that no single perspective or technique is universally applicable and, further, that an approach that has priority at the state level may not be useful in particular local areas.

We turn briefly to three local jurisdictions in states that have state-level programs to preserve agricultural land.

Napa County, California. Napa County contains a truly unique agricultural resource, the Napa Valley. Land in the Napa Valley is especially suited to premium varietal wine-grape vineyards. The vineyards and wineries are an important part of the county's economy, not only from the standpoint of the value of agricultural production, but also because the wineries are essential to the tourist industry.

In 1968 the Napa County Board of Supervisors, having recognized the threat of speculation and eventual suburban and second-home development to the economic viability of agriculture and tourism in the valley, zoned all unincorporated land in the valley as an "agricultural preserve," with a minimum parcel size of 20 acres (19). The board also declared all land in the county eligible for usevalue assessment under the California differential assessment program. The tax incentive should make the zoning more acceptable to landowners. Taxation consistent with the zoning and the uniqueness of the resource may strengthen the case for its legitimate regulation.

Suffolk County, New York. Located on eastern Long Island, Suffolk County has a population exceeding 1.25 million and a history of rapid growth. Land in farms in the county has declined from 123,000 acres in 1950 to an estimated 45,000 acres in 1974, yet Suffolk remains among the largest agricultural producing counties in the state.

As in Napa County, interest in preserving agricultural land stems not only from the important contribution that farm production makes to the local economy but also from the positive effect agricultural open space has on the local resort and recreational sector (23). No agricultural districts have been formed on Long Island under the New York law. The market value of noncoastal farmland in Suffolk County is 3 to 10 times greater than its value in agricultural use. Hence, farmland owners in the county are not likely to participate in a program that might inhibit their ability to sell the land for nonagricultural uses.

Faced with this situation, the Suffolk County Legislature approved a plan and budgeted \$60 million in local funds to purchase development rights from willing sellers on 10,000 to 12,000 acres of non-coastal farmland over the next 4 years. In cases where fee title is acquired, the "agricultural title" will be offered for sale to other commercial farmers prior to considering a lease-back arrangement (27). Priority will be given to farmer owned and operated holdings of at least 200 acres. When an owner of farmland sells the development rights, property taxes on the land will be reduced by about 80 percent since development rights constitute about 80 percent of farmland's value in Suffolk County. Farm operators could expand their operations by using the proceeds from the sale of development rights to buy more farmland (27).15

Town of Southampton, Suffolk County. In 1972, prior to implementation of the county's purchase program, Southampton pioneered in the transfer of development rights approach to preserving farmland. Two concepts were used: An agricultural overlay district in the zoning ordinance and a community land trust (23).

A farmer may transfer the development potential on all his land to a certain portion of it if he dedicates the remainder to a public land trust. He then has the first option to lease the land dedicated. To encourage aggregation of the agricultural preserves into contiguous tracts, the ordinance authorizes, in appropriate cases, the transfer of residential development or capital values offsite within the same school district (28).

The town thus has an option through the transfer of development rights that it may exercise when the county does not or cannot acquire development rights on land the town wishes to preserve as farmland.

Concluding Observations

Perhaps in the case of agricultural land policy it is not so important that a side, a tusk, a trunk, a knee, an ear, and a tail sum to equal a commonly perceived elephant. It is important, however, to know if we are not seeing the same thing. We must sharpen the semantics of agricultural land policy and acknowledge the range of perspectives that exists.

Agricultural land is to some a means to meet food and fiber requirements. To others it is a means to enhance the environment by providing open space, improving air and water quality, or reducing urban sprawl. To others it is a means to maintain or enhance the viability of a state or local economy. The policy issues are defined by the public-decision arenas. All the above perspectives on agricultural land may be acknowledged, but their relative importance varies among arenas.

For example, a local government considering agricultural land in its open space options for a new town is not particularly concerned about the contribution of its 2,000 acres in meeting domestic and foreign food and fiber demands. Similarly, in the national food and fiber policy arena, agricultural open space in new towns is relatively unimportant. Thus, questions like "Do we have enough agricultural land?" or "Should we preserve agricultural land?" can only be answered in the context of a particular decision arena.

Land policy has been significantly influenced, if not dictated, by the powers or authorities available at different levels of government. Under current national land use policy proposals, there would be some integration of these powers and authorities. The federal spending power would be used to encourage states to plan and in some cases regulate land use. This is a function that has traditionally been delegated by the states to local governments.

In agricultural land policy, as with land use policy generally, the state has a key role because it is the unit of government with the broadest constitutional base in our system. Of particular importance is the state's control over local government options. It is clear that local needs vary and

¹⁵In an unexpected development, the *New York Times* (September 1, 1974, p. 40) reported a dramatic increase in offers by real estate developers to sell farmland to the county during a current building slump.

are determined by such factors as geography, economic and population growth, and political philosophy and institutions. Hence, no one policy tool can be designed to serve all state and local agricultural land policy needs. State policy should seemingly provide not only for meeting statewide needs but also provide legislative flexibility for local governments to exercise a range of policy options adapted to varied local circumstances.

Historically, the selection of land use policy instruments has been a choice between incentives or controls. Experience with either tends to suggest some mix is best, and legislation has been evolving in this direction. For example, differential property tax assessment, the predominant tool in past agricultural land preservation policies, appears to function more effectively in a land use sense as a supplement to some land use control. The relative weight given to incentives or controls must vary depending on the public objectives in the particular land use planning setting and the efficacies of guiding private decisions toward those objectives.

While land use planning in this country has not meant planning to serve economic objectives per se, land use planning cannot ignore the economic arena within which it must operate. Zoning land for agriculture does not produce a farm any more than zoning for industry produces a shoe factory or zoning for high-rise development produces a 16-story building. The objective is to establish a system in which private decisions can be made that are consistent with social land use objectives.

This leads to the role of the private landowner in the design of public policy to preserve agricultural land, a subject not treated here and one about which relatively little is known. In any urbanizing area, farmland may be owned by many types of peoplespeculators, full-time farmers, parttime farmers dependent on farm income, hobby farmers, city residents owning tracts acquired for recreational purposes but who would be willing to lease part of their land for agricultural use, and others. Each would respond differently or would be affected differently by different techniques or strategies for preserving land in agriculture. Land use policy instruments could be fine-tuned to

private decision-makers as well as public objectives.

Agricultural land policy is on the frontier of more general land policy both in terms of concepts and experience. This leaves us with little empirical basis for recommendations or conclusions but a challenge for research to determine what will work and why. Until this challenge is met, policy-makers need to maintain an appreciation of the need for diversity, experimentation, and innovation in policy approaches.

REFERENCES CITED

- 1. Anderson, William D. 1970. Legaleconomic issues in implementing land policy. Res. Div. Bul. No. 54. Va. Poly. Inst., Blacksburg.
- Inst., Blacksburg. 2. Beuscher, Jacob H., and Robert R. Wright. 1969. Land use: Cases and materials. West Pub. Co., St. Paul, Minn.
- 3. Blueprint Commission on the Future of New Jersey Agriculture. 1973. The report of the Commission Trenton N 1
- port of the Commission. Trenton, N. J.
 Bosselman, Fred, and David Callies. 1972. The quiet revolution in land use control. Coun. on Environ. Quality, Washington, D. C.
 Bosselman, Fred, David Callies, and John Banta. 1973. The taking issue: An wedues of the constitutional limits
- Bosselman, Fred, David Callies, and John Banta. 1973. The taking issue: An analysis of the constitutional limits of land use control. Coun. on Environ. Quality, Washington, D. C.
 Bryant, W. R., and H. E. Conklin. 1973.
- Bryant, W. R., and H. E. Conklin. 1973. Legislation to permit agricultural districts in New York: As amended through 1973. A. E. Ext. 73-25. Dept. Agr. Econ., Cornell Univ., Ithaca, N. Y.
 Brown of the Corner of Corne of Corner of Corner of Corner of Corner of Corner of Corner o
- Bureau of the Census. 1972. Census of Agriculture 1969. Vol. 1, area reports, Pt. 7, New York Sec. 1. Washington, D. C.
- 8. Bureau of the Census. 1973. Census of Agriculture 1969. Vol. II, general report, Ch. 3, farm management, farm operators. Washington, D. C.
- 9. Bureau of the Census. 1973. Statistical abstract of the United States: 1973 (94th ed.). Washington, D. C.
- Carman, Hoy F., and Jim G. Polson. 1971. Tax shifts occurring as a result of differential assessment of farmland: California, 1968-69. Nat. Tax J. 24: 449-457.
- Conklin, H. E., and W. R. Bryant. 1974. Agricultural districts: A compromise approach to agricultural preservation. Am. J. Agr. Econ. 56: 607-613.
- 12. Council on Environmental Quality. 1970. Environmental quality, the first annual report. Washington, D. C.
- 13. Curlin, James W., and Robert K. Lane. 1973. National land use policy legislation, 93d Congress: An analysis of legislative proposals and state laws. Sen. Comm. on Int. and Insular Affairs, 93d Cong.. Ist Sess. (comm. print). Washington. D. C.
- 14. Dill, Henry W., Jr. and Robert C. Otte. 1971. Urbanization of land in the northeastern United States. ERS-485. Econ. Res. Serv., U. S. Dept. Agr., Washington. D. C.
- ton. D. C.
 15. Dill, Henry W., Jr., and Robert C. Otte.
 1970. Urbanization of land in the western states. ERS-428. Econ. Res. Serv., U. S. Dept. Agr., Washington, D. C.
- 16. Economic Research Service, U. S. De-

partment of Agriculture. 1974. Our land and water resources: Current and prospective supplies and uses. Misc. Pub. No. 1290. Washington, D. C.

- Frey, H. Thomas. 1973. Major uses of land in the United States: Summary for 1969. Agr. Econ. Rpt. No. 247. Econ. Res. Serv., U. S. Dept. Agr., Washington, D. C.
- Frey, H. Thomas, and Henry W. Dill, Jr. 1971. Land use change in the Southern Mississippi Alluvial Valley 1950-69. Agr. Econ. Rpt. No. 215. Econ. Res. Serv., U. S. Dept. Agr., Washington, D. C.
- Gustafson, Gregory C. 1973. The California Land Conservation Act of 1965: Economic analysis of a new tool of land use policy. Ph.D. diss., Dept. Agr. Econ., Univ. Calif., Berkeley.
- Hady, Thomas F., and Ann Gordon Sibold. 1974. State programs for the differential assessment of farm and open space land. Agr. Econ. Rpt. No. 256. Econ. Res. Scrv., U. S. Dept. Agr., Washington, D. C.
- Washington, D. C.
 21. Otte, Robert C. 1974. Farming in the city's shadow: Urbanization of land and changes in farm output in Standard Metropolitan Statistical Areas, 1969-70. Agr. Econ. Rpt. No. 250. Econ. Res. Serv., U. S. Dept, Agr., Washington, D. C.
- Econ. Rpt. No. 250. Econ. Res. Serv., U. S. Dept. Agr., Washington, D. C.
 22. Reilly, William K. 1973. The use of land: A citizens' policy guide to urban growth. Rockefeller Brothers Fund, New York, N. Y.
- 23. Reuter, Frederick H. 1971. Preserving farm land through zoning and a community land trust. In Land Use Controls Annual. Am. Soc. Planning Officials, Chicago, Ill.
- Solberg, Erling D. 1965. Greenbelt zoning—an evaluation. Econ. Res. Serv., U. S. Dept. of Agr., Washington, D. C.
 Solberg, Erling D. 1967. The why and
- Solberg, Erling D. 1967. The why and how of rural zoning. Agr. Inf. Bul. No. 196. Econ. Res. Serv., U. S. Dept. of Agr., Washington, D. C.
- 26. Solberg, Erling D., and Ralph R. Pfister. 1972. Rural zoning in the United States: Analysis of enabling legislation. Misc. Pub. No. 1232. Econ. Res. Serv., U. S. Dept. of Agr., Washington, D. C.
- 27. Suffolk County Agricultural Advisory Committee, 1974. Report of the Committee to the Suffolk County Legislature. Suffolk County, New York.
- Town of Southampton. 1972. Zoning ordinance *ff2-10*, 2-40-30. Southampton, N. Y.
- 29. U. S. Department of Agriculture, 1973. Monoculture in agriculture: Extent, causes, and problems. Rpt., Task Force on Spatial Heterogeneity in Agr. Landscapes and Enterprises. Washington, D. C.
- U. S. Senate, Committee on Interior and Insular Affairs. 1973. Land Use Policy and Planning Assistance Act. S. Rpt. No. 93-197, 93d Cong., 1st Sess., Washington, D. C.
- U. S. Senate, Committee on Interior and Insular Affairs. 1972. National land use policy: Background papers on past and pending legislation and the roles of the executive branch, Congress, and the states in land use policy and planning. 92nd Cong., 2nd Sess. (comm. print). Washington, D. C.
- 32. Wunderlich, Gene. 1974. Who owns America's land: Problems in preserving the rural landscape. Econ. Res. Serv., U. S. Dept. of Agr., Washington, D. C.