USDA photo by Clark

Prime land preservation: The California Land Conservation Act

DAVID E. HANSEN and SEYMOUR I. SCHWARTZ

EVEN though a clear definition of what constitutes prime and unique agricultural lands appears to be difficult to achieve (8), there can be little doubt that the preservation of these lands has been a central goal in much land use planning. Those concerned with the removal of prime agricultural lands from production see a weakening of the agricultural economy in a region or the nation, creation of upward pressures on food and fiber prices, and dislocation of individual farmers and ranchers. Some also view the preservation of prime lands as a means of avoiding dependence on other countries for basic necessities, containing urban sprawl, and maintaining resource conservation areas.

With passage of the California Land Conservation Act (also called the Williamson Act) in 1965, that state took an early lead in legislative responses to the prime land preservation issue. In addition to providing for scenic highway corridors, the CLCA (California Government Code Sections 51200-51295) has three major objectives:

1. The preservation of "a maximum amount of the limited supply of agricultural land . . . (for) the maintenance of the agricultural economy of the state. . . ."

2. The discouragement "of premature and unnecessary conversion of agricultural land to urban uses . . . (to) discourage discontiguous urban development patterns which unnecessarily increase the costs of community services to community residents."

3. The preservation of open space and "the preservation of agricultural production of such lands."[1]

Our Study Approach

At one level, economic analysis could involve itself with the processes of goal formulation and provide information on inconsistencies and economic consequences of alternative goals. At a second level, passing judgment on the goals is sidestepped, and the goals are simply accepted as stated. Evaluation then proceeds to determine how well the particular measures accomplish the goals they set out to meet.

We followed the second approach in examining the extent to which the CLCA has served to meet its original goal of preserving prime agricultural land. Such an approach can be important in identifying areas of needed improvement, providing performance information to similar programs, or stimulating a reexamination of goals in the event there is demonstrated an ineffectiveness in reaching the original purposes. For example, if the CLCA were found to improve the tax position of farmers, but was of limited effectiveness in preserving prime land or preventing urban sprawl, policymakers would likely be pressured to reexamine the original goals and determine whether the program could be justified solely on the basis of its benefit to farmers.

To the extent that the benefits of moving nonprime lands into alternative uses exceeds the benefits of using prime land in the same manner, it is obvious that prime lands should be preserved. We feel justified in accepting the prime land preservation goal on this basis; however, some comments and caveats are necessary. There will be instances when the costs of preserving prime lands may exceed their value to society. Under such circumstances there is the danger that preservation per se may become the

David E. Hansen is an associate professor in the Department of Agricultural Economics and Seymour I. Schwartz is an associate professor in the Division of Environmental Studies, University of California, Davis 95616. Giannini Foundation Research Paper No. 427.

[1]Detailed legal and historical analyses (*3, 21*) and discussion of possible areas of conflict between the expressed goals of the act (*19*) are presented elsewhere.

goal. When this happens, the possibility of achieving the desired goals by other means will receive scant consideration, impacts on other goals will be neglected, and creation of undesirable outcomes to society is likely. For example, taxpayer and consumer interests in lower food prices may be better served by encouraging food imports through free trade rather than by subsidizing agricultural land for higher domestic production (*13*). Similarly, impediments to the movement of agricultural land into alternative uses may create other undesirable impacts, for example, a housing scarcity. Such goal displacement may be happening under the CLCA with the movement away from preservation of prime land and toward preservation of virtually all agricultural and open space lands.

Use-Value Assessment and the Act

Under the CLCA, tax assessment is based on the land's value for agricultural use (capitalization of appropriate rental incomes) rather than on market value. Counties and cities are authorized to offer use-value assessment in return for a contract (usually of 10 years' duration) through which the landowner surrenders his nonagricultural development rights to the local government. To qualify, land must meet certain agricultural or open space criteria and be located in areas designated as agricultural preserves.

Under the program, participating local governments receive subvention payments from the state. These payments depend on the levels of land enrolled as prime urban, nonurban prime, or nonprime land. To qualify for the higher subvention payments under the prime land classifications, the following definition is employed:

1. All land qualifying as class I or II in the Soil Conservation Service land use capability classification.
2. Land that returned an annual gross value of not less than $200 per acre for three of the previous five years.
3. Land that qualifies for a rating of 80 to 100 in the Storie Index Rating.
4. Land that supports livestock with an annual carrying capacity equivalent to at least one animal unit per acre as defined by the U. S. Department of Agriculture.
5. Land planted to fruit- or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will normally return $200 per acre per year during the commercial bearing period.

Once in force, the contract automatically renews each year for an additional year, thus maintaining its 10-year status unless a termination notice is initiated. Termination is usually by notice of nonrenewal, which can be given by either party. After such notice, the contract continues for nine more years (the "runout period"). Property taxes increase immediately to about 60 percent of the tax based on market value and continue to increase each year until contract termination, at which time the tax is computed at full market value. The assessment formula used during the runout period is prescribed by law [California Revenue and Taxation Code, Section 426(b)] and is extremely important in determining present value of benefits over the contract period (*18*).

A contract may also be terminated by immediate cancellation under special circumstances deemed by the local governing body to be in "the best public interest." Such termination requires a penalty fee of 12.5 percent of the market value of the land at the time of cancellation, unless waived by the secretary of the California Resources Agency.

While not always serving the same objectives as the CLCA, various forms of use-value assessment programs have been implemented by at least 35 states (*9*). The California program is regarded as one of the two strongest in the nation because of the nature of its long-term contract (*9*). Since it is also one of the older programs, an examination of its performance may help other states understand the potential for such a program to preserve prime lands.

Changes in Intent

The original intent of the CLCA focussed clearly on the issues of preserving prime agricultural land and preventing urban sprawl. Subsequent modifications of the law have resulted in a movement away from this orientation. Amendments of 1968 and 1969 generally eliminated references to the word "prime," making this category of importance only as a basis for state subvention payments to local governments.

This movement away from the prime land preservation goal has not been without controversy (*5*). Critics contend the act is no longer meeting its purposes. The "preserved" land, they say, is of questionable value for agricultural production or reducing urban sprawl.[2]

Supporters of the CLCA answer critics by suggesting that the act simply reflects a responsiveness to the changing priorities of society. From this viewpoint, criticisms for failure to preserve prime lands are no longer valid since inclusion of scenic highway corridors, wildlife habitats, saltponds, managed wetland areas, and land with open space value are indications of the desire to preserve other than prime lands (*12*).

While the extent to which preservation of prime lands is still a valid goal of the CLCA has not been resolved, our interpretation is that, although the act has been expanded, the prime land preservation objective is still important. This is supported by the differential levels of payments under the subvention program (which places a premium on enrollment of prime urban and prime nonurban lands) and by testimony at legislative hearings (*5*).

Evaluating the Act's Effectiveness

Determination of the CLCA effectiveness in preserving prime land requires knowing what would have happened had the law not existed—clearly a difficult task. Numerous interviews and letters indicate the act has helped some landowners remain in agriculture at their present locations. However, we have no good estimates of the extent of this effect. Evidence from other states indicates a limited effect (*1*, *14*). Furthermore, even if these landowners had been forced to leave agriculture, the extent to which their lands would have been removed from agriculture cannot be ascertained.

Our evaluation of the act is based on an examination of the (a) rates of enrollment and county implementa-

[2]Disenchantment with the CLCA in preserving prime land resulted in the introduction of Assembly Bill 15, which would have established a State Agricultural Resources Council. This agency would have delineated prime agricultural lands (in accordance with the CLCA definition) and prescribed the limited uses allowed on such lands.

tion, (b) incidence of contract nonrenewal and cancellation, and (c) enrollment levels at the urban fringe.

Statewide Acceptance of the Act

Only six counties were participating in the program two years after the act's passage. By 1968-1969, the number had increased to 23 (3). At present, 46 of 58 counties are enrolled (Table 1). Although there are some notable exceptions, lack of participation among the majority of counties presently without programs is of minimal importance. Landowners in those counties with less development pressure would realize little benefit from CLCA contracts because of the similarity between market value and use value.

Although the rate of individual enrollment has slowed in recent years, the amount of land under the act has reached impressive proportions. Over the most recent eight-year span, total acreage has increased from 2 million to well over 14 million.

The prime land portion of the total enrollment has also been notable. While initial concern was raised with the low levels of prime land and the low ratio of prime land to total acreage, this ratio subsequently increased from .06 (in 1968-1969) to .30 and has remained at that level the past four years. In absolute numbers this represents an increase from 131,000 acres of prime land to well over 4 million acres. Our calculations, based on 1976 enrollment data from the California Resources Agency, show that in those counties offering contracts 46 percent of all eligible agricultural land and 42.6 percent of all eligible prime land is enrolled. Prime land has been subcategorized as either urban or nonurban prime land ever since the initiation of the Subvention Entitlement Program in 1972-1973.[3] Throughout the 1972-1973 to 1975-1976 period, the ratio of urban prime to total prime land enrolled has remained virtually unchanged at .21.

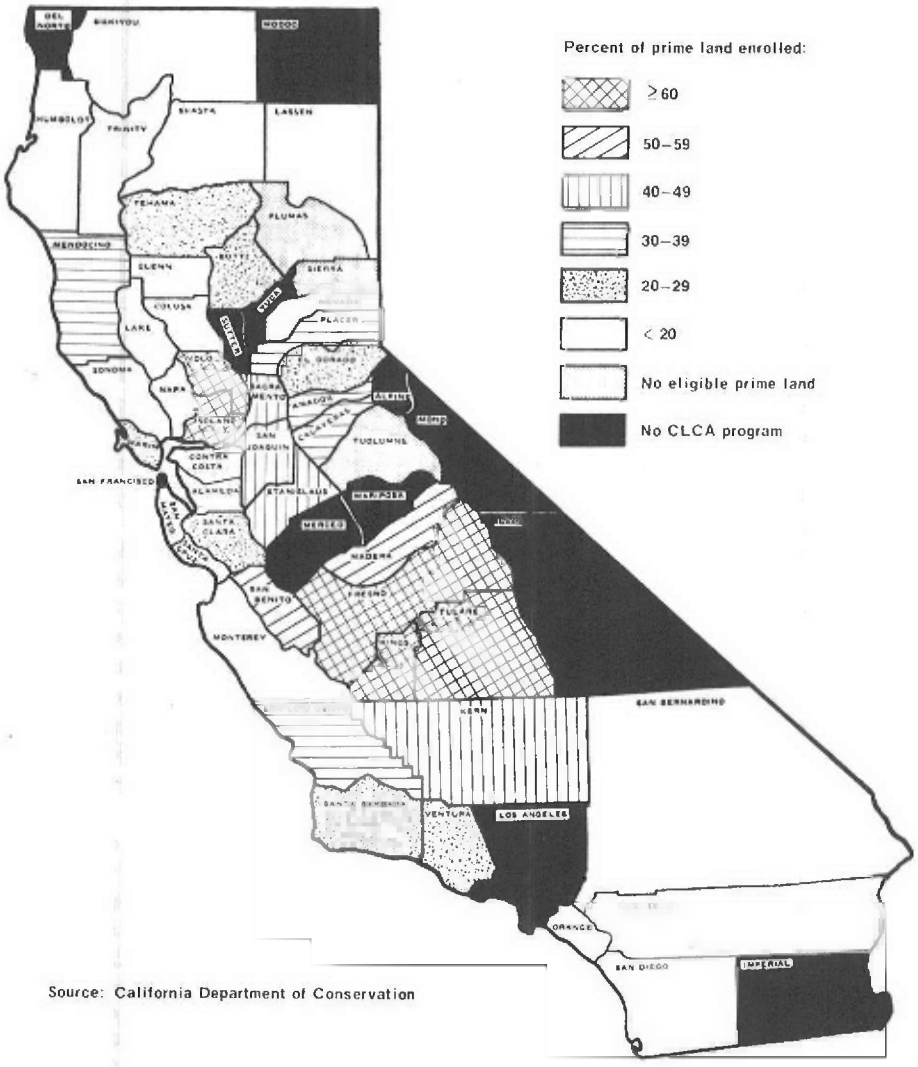
A number of counties have demonstrated particularly high enrollments of prime land—reaching as much as 80 percent of total available prime land. These counties are found in the Sacramento and San Joaquin Valleys (Figure 1), which have some of the more productive lands and more intensive agriculture found in California.[4] The high level of prime land enrolled in these counties is also significant because 7 of 10 participating counties are also in Standard Metropolitan Statistical Areas and, consequently, subject to considerable pressure from urbanization.

On the other hand, little land is under contract in the coastal zone, an area of considerable importance and serious land use conflict (*10*).

Contract Cancellations

While the rates and location of prime lands enrolled may be impressive in many counties and even statewide, this does not assure that the contracts will be of sufficient duration to represent a substantial gain in land retained in agriculture. Participants could allow the contracts to expire when they would have sold the land had the contract not been in force. Alternatively, local contracting agencies could interpret the "public interest" so loosely as to allow numerous cancellations, with landowners and developers willing to pay the penalty fee.

The CLCA has been in force long enough to provide meaningful evi-



Source: California Department of Conservation

Figure 1. Prime agricultural land enrolled under the California Land Conservation Act, by county, 1974-75.

[3]Urban prime agricultural land must be within one mile of an incorporated city of less than 1,500 registered voters, or within three miles if there are more than 1,500 registered voters (California Government Code Section 16142).

[4]As is true in most nonparticipating counties, the similarity between market assessed value and the use-value assessment for some prime lands would result in little advantage of accepting a contract. This appears to be especially true of some orchard lands.

Table 1. Total enrollments in the California Land Conservation Act, by year.

Year	Participating Counties	Total: All Land[a]	Total: Prime Land[a]	Urban Prime Land	Nonurban Prime Land	Nonprime Land	Total Prime/Total All Land
		1,000 acres					
1975-1976[b]	46	14,427	4,371	907	3,464	10,056	.30
1974-1975[b]	46	13,742	4,140	852	3,287	9,602	.30
1973-1974[b]	45	12,719	3,915	801	3,114	8,804	.31
1972-1973[b]	44	11,440	3,428	709	2,917	8,012	.30
1971-1972[c]	42	9,563	2,620				.27
1970-1971[c]	39	6,273	1,654				.26
1969-1970[d]	37	4,252	573				.13
1968-1969[e]	23	2,062	131				.06
1966-1968[e]	6	200	n.a.[f]				n.a.[f]

[a]May not sum due to rounding.
[b]California Resources Agency, Department of Conservation. Open Space Entitlements Program data, starting 1972-1973.
[c]California State Board of Equalization (*6*).
[d]California Legislature (*4*).
[e]California Legislature (*3*).
[f]Not available.

Table 2. Land removed from California Land Conservation Act contract, by year.

Year	Nonrenewal				Cancellation				Acreage Withdrawn as a Percentage of Total Enrollment
	Urban Prime Land	Nonurban Prime Land	Nonprime Land	Number of Contracts	Urban Prime Land	Nonurban Prime Land	Nonprime Land	Number of Contracts	
	acres								
1975-1976	278	744	5,182	59	64	743	2,697	27	.067
1974-1975	670	797	2,551	33	303	69	141	14	.033
1973-1974	743	551	7,540	25	79	140	6,120	14	.119
1972-1973	1,434	452	4,034	77	15	151	544	51	.058
Average per year	781	636	4,827	48	115	276	2,376	26	

Source: California Resources Agency, Department of Conservation. Tentative data.

dence as to the stability of the long-term contract. Table 2 presents the results of nonrenewals and cancellations for the period of time since the Subvention Entitlement Program.

Whether in terms of nonrenewal, cancellation, or the two combined, annual withdrawals from the program are extremely low compared with overall enrollment levels or annual net additions. This is true regardless of land category. Note also that the relative rate of prime land to total land withdrawals (.20) is considerably below the rate of prime land to total land additions (.30).

These results support the contention that the long-term contract does indeed provide considerable stability in land use, with the vast majority of contracted land remaining under contract. However, it could still be argued that the primary motivation for both entering into and maintaining a contract is that the enrolled lands are located in areas that are removed from development pressures. (Such an argument is more difficult to support for urban prime lands.) A response to such an argument would require information on the extent to which enrolled parcels are concentrated in the urban fringe. Unfortunately, evidence gathered to examine the program's impact at the urban fringe is limited. Conclusions regarding the performance of the act thus have to be viewed with caution.

To provide a firmer basis for evaluation, we concentrated our research on a detailed analysis of enrollment patterns, tax benefits, and economic incentives offered to landowners under the act through a case study in Sacramento County (*11, 18*).

Acceptance at the Urban Fringe

Sacramento County consists of a major urban area as well as an important agricultural sector. The latter ranks eighteenth among California's 58 counties in harvested cropland and twenty-third in total value of agricultural products (*20*). The county's diverse agriculture is reflected by the 10 leading commodities in 1975 (in decreasing order of value of production): cattle, corn, milo, tomatoes, pears, wheat, rice, irrigated pasture, sugar beets, and alfalfa (*15*). Although California's diversity makes it difficult to define a representative county or to generalize widely from the results of any single county, we feel Sacramento County is sufficiently similar to a substantial number of counties within the state and elsewhere to provide valuable information in evaluating the CLCA program.

In addition to a mail survey of all CLCA contract holders in the county, we secured data from three study areas near the urban fringe within the county. Assessment records, CLCA contract enrollment data, and in-depth interviews with 62 randomly selected landowners were also used as data sources.

Since the CLCA uses tax inducements, the economic incentives provided under the act are fundamental to any evaluation of the program's effectiveness. To determine the extent of incentives offered, we examined (a) actual or potential annual tax benefits for lands characterized by different cropping systems and (b) general conditions under which acceptance of a contract is preferred to the alternative of refusing a contract and

selling the land during the contract period. To evaluate the contract versus noncontract alternative, we made several assumptions about land price patterns that might occur during the contract period. We then developed a model to compare the two alternatives under a variety of price patterns and conditions representing a reasonable range of possibilities facing the landowners (*17*, *18*).

Table 3 shows the annual tax savings available to lands under contract and to noncontract lands in rice, dry pasture, and irrigated pasture. In all instances, CLCA assessed values were considerably below the market assessed values. The tax savings ranged from 40 to 80 percent. For each cropping category, the potential tax savings for the noncontract lands were greater than the actual tax savings for lands under contract. Apparently, noncontract landowners are willing to forego this greater potential savings in order to maintain their option of selling the land during the contract period.

In looking at a variety of land price patterns, we tried to determine the general conditions under which those who refuse contracts might still benefit from that decision. We based our price patterns on data from rice land since this was the most valuable land in the study and the most indicative of the prime agricultural lands of concern to the CLCA.

We should note also that Sacramento is one of the few counties requiring a 20-year contract that must be held for 10 years before the running 10-year renewal option can be exercised.

Based on the actual average initial value of $1,017 for rice land, the discounted present value of the CLCA contract varied from $140 to $359 per acre. Values at the high end were associated with price patterns showing rapid initial rises (tripling in the first five years), followed by more modest rises in the remaining 15 years of the contract. In most instances, benefits were less than 25 percent of the initial land value.

The question remains, however, as to whether these benefits are sufficient to overcome the lost opportunity of land sale within the contract period. Our findings indicated that for an important number of price patterns the extra benefits from the CLCA favor contract acceptance. But there were several important patterns favoring contract refusal. These involved patterns with sharp peaks (representing exceptionally favorable sales lost by poor timing) and patterns with rapid initial run-ups followed by flat or slowly rising prices. On the other hand, even for these patterns, an altering of the pattern to allow for reasonable increases after the peak often shifted the preference back to the CLCA contract alternative.

Table 3. Assessed values and annual tax reductions obtainable from a CLCA contract.

Parcels	*Rice*	*Dry Pasture*	*Irrigated Pasture*
Contracted Parcels			
Market assessed value ($/acre)[a]	213.34	65.98	158.91
CLCA assessed value ($/acre)	95.87	19.00	95.79
Annual tax savings			
$/acre	15.84	5.76	7.40
% of total tax bill	55.1	72.2	39.7
Noncontracted Parcels			
Market assessed value	254.25	89.68	188.67
CLCA assessed value	91.41	17.55	96.04
Annual tax savings			
$/acre	22.19	9.15	11.04
% of total tax bill	64.0	80.4	49.1

Source: Sacramento County, California, Office of the Assessor. Unpublished data.
[a]All land is assessed at 25 percent of appraised value in California.

The fairly limited conditions favoring the noncontract alternative raise considerable doubt about the realism of development expectations among urban fringe landowners. Within the three study areas, we found the highest enrollment in the foothills area, which is characterized by poorer quality soils and dryland pasture. There, enrollment was concentrated in that portion most distant from centers of development. Other researchers have noted similar low enrollment patterns in the urban fringe (*1*, *7*, *9*, *10*) and reached the conclusion that landowners are overly optimistic about development prospects (*16*).

To further explore this question of landowner expectations, we selected 65 parcels within the study area closest to downtown Sacramento. We looked at the prospects of what would have happened had an enrollment decision been made in 1962 with full knowledge of 1962-1973 land prices and assuming a moderate rate of increase thereafter. Based on this assessment data, the correct decision for at least 80 percent of the parcels would have been to accept the contract. In contrast, less than 2 percent actually enrolled. Of course, had a substantial number enrolled, the results for the remaining noncontractees might have been quite different.

Conclusions

The strong political support and rather high enrollment of prime and nonprime lands under the CLCA are readily explainable in terms of (a) the tax savings provided by the act and (b) the fairly limited conditions under which contract refusal is the economically rational decision. However, our findings lead us to be pessimistic about the potential of use-value assessment as a land control measure. Most landowners in the urban fringe are overly optimistic about future price appreciation possibilities for their lands. The result apparently has been a low enrollment at the urban fringe despite high potential benefits.

Although we do not know the elasticity of enrollment response to a general increase in benefits, we think increased benefits to the other participants and encouragement of new entrants outside the urban frange would be an extremely costly way of increasing enrollment in the urban fringe. Even if greater prime land enrollment at the urban fringe were to come about, there is no assurance that this would be desirable in terms of the act's other objectives. Preservation of prime lands on an ad hoc basis could increase urban sprawl and leap-frog development, as development skips over the contracted prime lands to more distant prime and nonprime lands.

Many early proponents of the CLCA saw in the measure a potential for en-

hancing the political feasibility of implementing more restrictive land use controls on prime agricultural lands. Presumably the land use planning process would be improved by encouraging the designation of agricultural preserve areas in accordance with general plan criteria (2). Most counties instead have implemented the program in response to landowner applications — with the result that patchworks of preserves have been created that need only be nominally compatible with agricultural zoning in the general plan.

There is some hope that the low nonrenewal and cancellation rates to date under the act will continue to prevail as the urban fringe moves closer to currently enrolled lands. However, the historic failure of most counties to demonstrate a will to control agricultural land conversion through implementation of stronger land use controls, together with the apparently unrealistic land price expectations of landowners in the urban fringe, raise questions about the act's effectiveness for preserving prime agricultural lands in the foreseeable future.

Our experience also suggests caution in assuming that alternative programs of a similar voluntary nature will be successful. Such programs seem especially likely to encounter difficulty when it is required or assumed that a local government stands ready to regulate land use more effectively.

REFERENCES CITED

1. Barron, James C., and James W. Thomson. 1973. *Impacts of open space taxation in Washington.* Bul. 772. Wash. Agr. Exp. Sta., Pullman.
2. Bowden, Gerald. 1973. *The Williamson Act—an alternative view.* Special Hearing on Suggested Remedial Approaches to the California Land Conservation Act of 1965, summary of testimony, before the Assembly Select Committee on Open Space Lands. Sacramento, Calif.
3. California Legislature, Joint Committee on Open Space Lands. 1969. *Preliminary report.* Sacramento.
4. California Legislature, Joint Committee on Open Space Lands. 1970. *Final report.* Sacramento.
5. California Legislature, Assembly Select Committee on Open Space Lands. 1973. *Special hearing on suggested remedial approaches to the California Land Conservation Act of 1965.* Summary of testimony. Sacramento. pp. 32-33.
6. California State Board of Equalization. 1971. *Memorandum of November 12, 1971.* Sacramento.
7. Carman, Hoy F., and Jim G. Polson. 1971. *The California Land Conservation Act of 1965: Landowner participation and estimated tax shifts.* Inf. Series in Agr. Econ. No. 71-4. Univ. Calif., Davis.
8. Fenton, Thomas E. 1975. *Definitions and criteria for identifying prime and unique lands.* In *Perspectives on Prime Lands.* U. S. Dept. Agr., Washington, D. C.
9. Gloudemans, Robert J. 1974. *Use value farmland assessments: Theory, practice and impact.* Intl. Assn. Assessing Officers, Chicago, Ill.
10. Gustafson, Gregory C., and L. T. Wallace. 1975. *Differential assessment as land use policy: The California case.* AIP Journal 41: 379-389.
11. Hansen, David E., and S. I. Schwartz. 1975. *Landowner behavior at the rural-urban fringe in response to preferential property taxation.* Land Economics 51: 341-354.
12. Hudner, Philip. 1974. *In support of the Williamson Act.* California Farmer (Oct. 19): 35.
13. Johnson, D. Gale. 1973. *World agriculture in disarray.* St. Martin's Press, London, Eng.
14. Koch, Robert A., Harriet H. Morrill, and Arthur Hausamann. 1968. *Implementation and early effects of the New Jersey Farmland Assessment Act.* Bul. 830. Rutgers Agr. Exp. Sta., New Brunswick, N. J.
15. Sacramento County, California, Agricultural Commissioner. 1975. *Annual crop report.* Sacramento.
16. Schmid, A. Alan. 1968. *Converting land from rural to urban uses.* Johns Hopkins Press, Baltimore, Md.
17. Schwartz, S. I., D. E. Hansen, and T. C. Foin. 1975. *Preferential taxation and the control of urban sprawl: An analysis of the California Land Conservation Act.* J. Environ. Econ. and Manage. 2: 120-134.
18. Schwartz, S. I., D. E. Hansen, and T. C. Foin. 1976. *Landowner benefits from use-value assessment under the California Land Conservation Act.* Am. J. Agr. Econ. 58: 170-178.
19. Stanford Environmental Law Society. 1974. *The property tax and open space preservation in California: A study of the Williamson Act.* Stanford Law School, Stanford, Calif.
20. U. S. Department of Commerce. 1972. *Census of agriculture, 1969.* Vol. I, area reports, part 48, California. Washington, D. C.
21. Wagenseil, Harris. 1970. *Property taxation of agricultural and open space land.* Harvard J. on Leg. 8: 158-196. □

WHY PRESERVE AGRICULTURAL LANDS?

The evidence suggests that the national agricultural land base is certainly adequate for domestic needs. And sizable world needs can be served. Nevertheless, there is sufficient uncertainty regarding factors affecting future productivity to warrant careful consideration of our policies concerning farmland use and conservation. Potentially important future constraints on production include: energy costs, water availability, increasing costs of nonland inputs, environmental restrictions, a declining rate of advancement in agricultural technology, continued conversion of productive farmland to nonagricultural uses, and volatile export demands.

Perhaps the most compelling justification for increased concern about the conversion of agricultural land to other uses, however, comes not from the national production perspective but from the state and local perspective. Maintenance of land in agricultural uses may serve important public purposes which are not readily apparent when viewing the situation from the national vantage point. Agriculture is very important to the economy of many states and municipalities. Continual use of land for agriculture may be helpful to the maintenance of air and water quality in many areas.

The cumulative weight of the arguments implies that land use decisions should give full consideration to farmland. The implications of this report are:

First, there is an increasing amount of interdependence between land uses and among regions in the use of land.

Second, the traditional market system may not always be sufficient in providing for the wise use of our lands.

Third, land use planning and the coordination of programs at the national, state, and local level are essential if we are to make wise use of our lands.

Fourth, efforts to limit the unwise conversion of agricultural lands to other uses are in the public interest. Our most productive lands should not be withdrawn from agriculture without full consideration of the impact of such actions.—*MELVIN L. COTNER, Director, Natural Resource Economics Division, Economic Research Service, U. S. Department of Agriculture, from "Land Use Policy and Agriculture: A National Perspective," ERS-630.*