

LAND CONVERSION IN AN INTRASTATE REGION: THE NEED FOR A STATE LAND USE POLICY¹

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Abstract. Present trends of land use conversion within urban regions indicate open and agricultural land will be almost non-existent by the year 2000. If this trend is to be diverted, a state land use policy providing for enforceable regional land use controls is necessary. A state land use policy is proposed providing for controlled, local and regional participation. This approach is workable, if the political leadership and local citizenry support such a change.

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Within every major urban area in the United States the issue of land conversion is receiving increasing attention by planners, policy makers and urban dwellers. The mad and often chaotic land development pattern of the last 25 years has swept away much of the natural beauty, open space and expansive farmlands most people had come to enjoy. As Robert Healy (1976) points out, these were part of some landowners' property rights and the public right to them could be revoked legally at the landowners' pleasure. The appetite of an expanding urban area for space to accommodate the demands of an expanding urban population is insatiable. The net result is readily recognized urban sprawl which claims large blocks of open areas in which haphazard, poorly planned land use is the rule rather than the exception. Essential and non-essential uses are often intermixed in a manner inconsistent with efficient land use concepts and a recognition of ecological constraints.

This paper is an attempt to take a closer look at some of the issues involved in the regional approach to land use control. The application of conventional methods has proved less than effective in directing ordered development at the local level and shows no promise on the regional scale. The issue of how effective local governmental control of land can be in a regional setting was examined

and alternate approaches posited. The role of state government is central to any meaningful regional land use policy. Thus, an examination of how state systems work was assessed. A model for local, regional and state control of land was developed, providing for meaningful functions at all levels.

Even though the pro-development bias so prevalent in the United States shows some signs of abating, existing land use controls virtually assure unplanned development. While the old rules are increasingly coming under attack, new rules have yet to be formulated and accepted (Reilly 1973). Traditional attitudes toward land and the governmental interest in it have fragmented land use planning both functionally and organizationally. Consequently, what little planning that has been accomplished was directed to a single function or purpose with little reference to community goals or long-term consequences (Council of State Governments 1975).

While the public relies on local government to assert a public interest in regulating changes in the use of private land, the results have been disappointing. This is due, primarily, to the fact that the authority to implement plans is almost always kept at the local rather than the regional level, often resulting in the most minute local concern taking precedence over more widespread regional concerns when very localized interests are involved (Council of State Governments 1975).

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This practice obviates an overall regionally controlled development policy which will phase the pace, guide the direction, and limit the volume of growth in an urban region. In any given urban region, one need only glance at the adopted regional development plan and the local zoning maps to see the disparity between local interests and regional objectives with respect to land use. Most communities ignore the regional plan and zone main arteries for commercial uses, rather than the residential or open agricultural areas proposed by the plan. This effort to build a tax resource base is understandable,

given the existing tax system, but it certainly precludes effective regional planning. The insatiable appetite of urban development for land for all types of uses will have to be curbed and the only effective approach to this is through a regional land use program developed at the state level. Only in this way can the escalating demand for urban space be controlled.

A study of land conversion within the Northeast Ohio Four County Region (NEFCO) clearly pointed to the need for regional control of land use development (Center for Urban Studies 1977). In this study the conversion of agricultural

FOUR COUNTY STUDY AREA

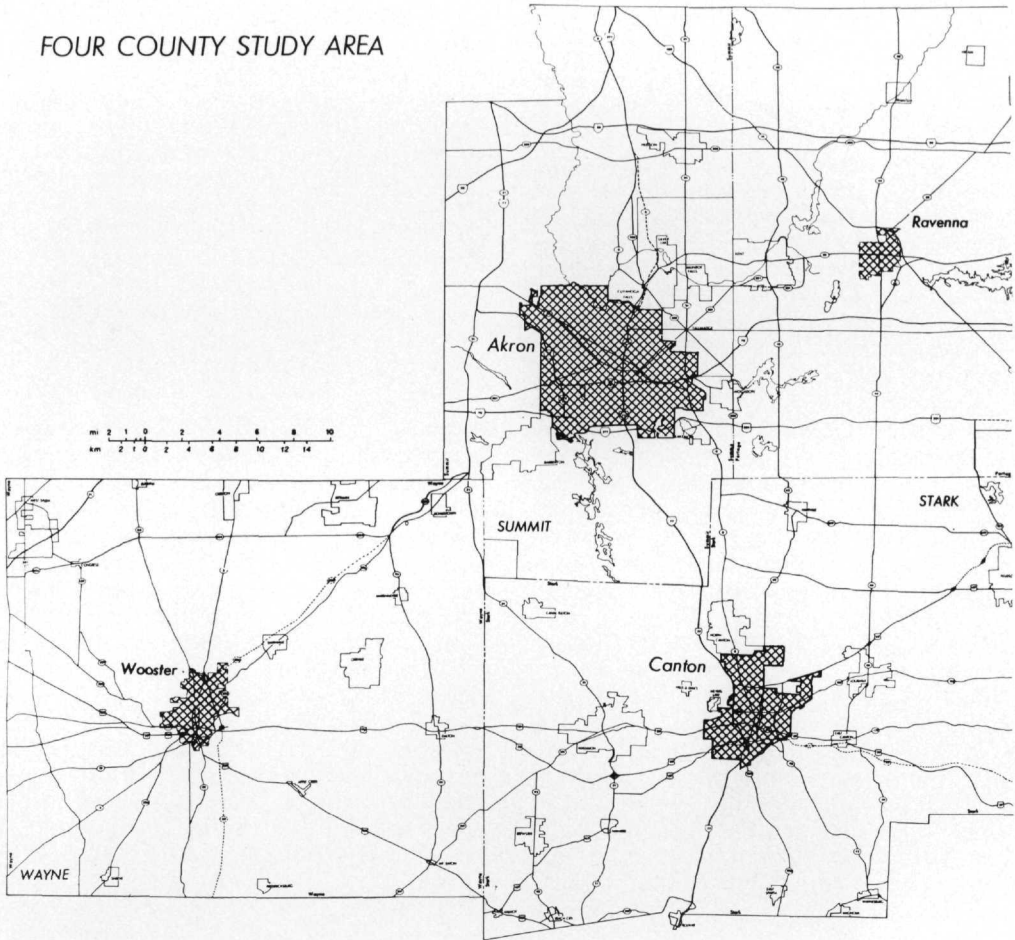


FIGURE 1. Map of 4 county study area which includes the cities of Wooster, Akron, Canton and Ravenna.

and open land to urban uses was carefully considered in the counties of Portage, Stark, Summit and Wayne (fig. 1). In this study, the "growth pole" or "growth center" method was used to measure the trend in urban diffusion and GEOFIT was applied to extrapolate growth trends. This method involves the development of a "correlation coefficient" calculated on the basis of the reciprocals of the distance from each growth pole to the location of the largest urban center and subsequently associating growth rates utilizing the following formula:

$$S_{ij} = \sum_{k=1}^n \left(a_k + \frac{b_k}{d_{kij} + 1} \right) + e_{ij}$$

S_{ij} and e_{ij} are true values in terms of spatial growth, d_{kij} represents distance, and a and b are parameters (Semple *et al* 1972). This method identifies those points in geographic space which may be regarded as urban growth centers and their incremental expansion over a period of time was measured. Thus, the urbanization, suburbanization, population growth, and industrial development were placed within the growth pole concept and trends in land conversion were measured.

Examining the growth out from the major urban growth poles of Akron and, to a lesser degree, Canton, it was found that, during the 30 year period from 1940 to 1970, all but Wayne County shifted from a predominantly rural to an urban growth region. Akron functioned as the primary growth pole, with urbanization and suburbanization expanding into most parts of Summit, Portage and Stark Counties. As the east-west axis continued to grow, a new north-south axis could be seen emerging as well. The Canton-Massillon area coalesced into a single and increasingly more important growth pole during this period. Conversely, Wayne County did not grow significantly from 1940 to 1970, although there were some minor losses in agricultural land (fig. 2). The findings are consistent with the study by John Sitterley (1976) on land use change in Ohio from 1900 to 1970. He found that the NEFCO area was dominated by the

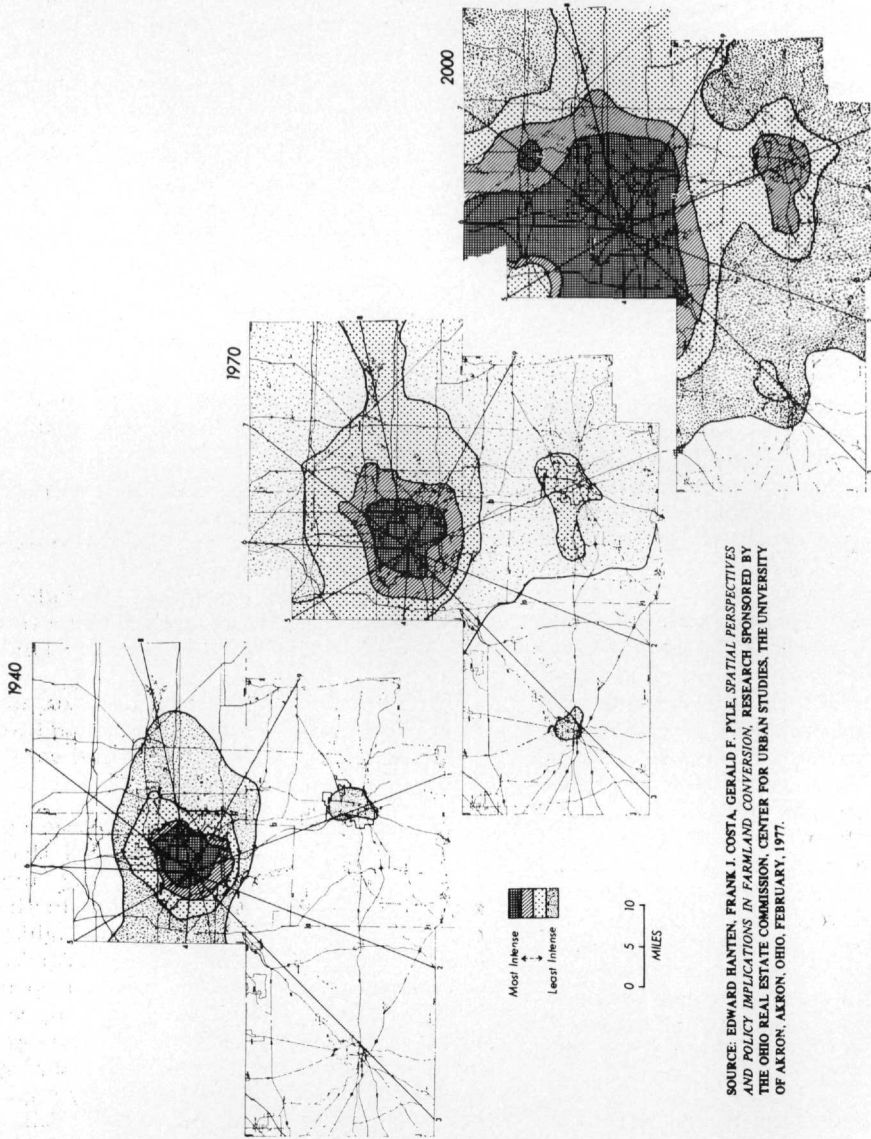
Akron-Canton-Youngstown urban complexes by 1970 with a resultant decrease in farmland and increasing urban and non-farmland uses, and suggested this trend would continue.

Projection of land conversion to the year 2000; through the use of a polynomial trend surface analysis along transects, indicates that extreme urbanization pressures will be felt in all parts of the NEFCO region. Most of the prime agricultural and open land will be converted to urban uses around the primary and secondary growth centers. By the turn of the century, the only significant areas of prime agricultural land will exist in the western and southwestern part of the NEFCO region (fig. 2). The area exhibits the classical pattern of land use development in an urban area. Intense urban development occurred around the major urban growth poles with intermixed uses radiating outward and intense use occurring along major transportation arteries. The disorganized ribbon development along major highways and the suburban and exurban sprawl was evident, but contained, in 1940. Thirty years later the leapfrog development and "slurbs" with associated disorganized growth pervaded all but the western-most county.

Local governments, the ostensible guardians of the public interest in regulating the private use of land, were incapable of directing ordered development. Their zoning powers, although perhaps good in concept, failed in practice, proving to be incapable of withstanding the strong land market forces. Reilly (1973) pointed out that the failure of local zoning probably rested more with the tool rather than with the local governments which applied the tool. An ineffective tool cannot be expected to render effective results. Yet one must ask, "How much damage can an urban society tolerate before local governments begin to recognize the tool is defective?"

THE NEED FOR A LAND USE POLICY

It is a tragic fact that haphazard and inefficient land use development will continue to occur in the NEFCO region as long as an effective regional land use



SOURCE: EDWARD RANTEN, FRANK J. COSTA, GERALD F. PYLE, SPATIAL PERSPECTIVES AND POLICY IMPLICATIONS IN FARMLAND CONVERSION, RESEARCH SPONSORED BY THE OHIO REAL ESTATE COMMISSION, CENTER FOR URBAN STUDIES, THE UNIVERSITY OF AKRON, AKRON, OHIO, FEBRUARY, 1977.

FIGURE 2. The intensity of urban development emanating out from Akron, the central growth pole in the northeast Ohio region of Summit, Stark, Portage and Wayne counties for the years 1940 and 1970 with projected development in 2000. The lesser growth poles of Canton in Stark county emerges in 1949 and Wooster in Wayne county gains prominence in 1970. The rapid expansion of urban development has engulfed all but Wayne county by 1970 and by the year 2000 only the very western half of Wayne county is expected to retain extensive areas of open and farmland.

policy is absent. Under present land use control laws in the State of Ohio, little, if any, effective control will be possible. Very likely it is already too late to alter the growth pattern projected for the next 20 years. Yet there are indications that increasing numbers of citizens are dissatisfied with the way that land use decisions are made. The awareness that land is a finite resource, which can be depleted for generations through misuse, is becoming widespread.

Land use planning is an extremely complex process, involving political, economic, social and legal considerations. There are no simple solutions, but there surely are more rational approaches than those presently used. The debate on land use has gone beyond the specialized realm of the planner, administrator and legal expert and is now a significant political issue. The public has become more knowledgeable about ecological systems and recognizes that changes in land use may have effects or environmental impacts which are not limited to a parcel of private property whose use has changed (Healy 1976).

Former Governor Tom McCall of Oregon aptly described the traditional attitude toward land use in the United States when he stated that

"At work here is the American ethic: rugged individualism, unlimited growth, every man for himself. But related to land abuse, I call it the buffalo hunter mentality—use up the resource until it's gone and then look elsewhere for new quarry. We can't do that with land. It's a finite resource, and we've got to look at it in that context. All the land we're ever going to have is in front of us, and we can't accept our past use and misuse of it as a guide to the future." (Citizens Advisory Committee on Environmental Quality 1976)

There is, as William Reilly pointed out (1973),

". . . a new mood in America . . . citizens are asking what urban growth will add to the quality of their lives. They are questioning the way relatively unconstrained, piecemeal urbanization is changing

their communities and are rebelling against the traditional processes of government and the market place, which they believe have inadequately guided development in the past."

Given the awareness of the problem, how does a region like the NEFCO area proceed to cope with the very complex problem of land use, one that is virtually beyond the capabilities of local governments to solve, given the present status of land control legislation in the State of Ohio? Local governments and regional planning bodies apparently have only limited authority to cope with this problem of encroachment. Until effective state and/or federal land use planning legislation is enacted, a region can only have limited success in carrying out a land use control program.

Presently there are 4 major types of land use control available to municipalities:

1. Police power as exercised through zoning legislation.
2. The fee simple, or direct acquisition of land by government.
3. Purchase of easements, including scenic easements, which make development for other forms of land use difficult.
4. Taxation policies such as assessing open space or agricultural land at its open space or agricultural value (Whyte 1970).

Within these 4 rather broad categories there are various forms of control that can be applied by local planning and zoning regulatory agencies. Such methods as transfer of development rights, establishment of agricultural districts, differential assessment of farm and open lands, restrictive contracts and agreements, easements, and phased development have been employed with varying degrees of success. Too frequently regulatory bodies are reluctant to fully utilize the full range of control devices available to them.

A body of literature has appeared concerning the need for regional coordination of land use planning. Regional planning commissions have developed comprehensive regional plans designed to direct

urban growth in a regional context which, although accepted by the municipalities in principle, have been all but ignored in practice. The regional planning unit can only appeal for cooperation from the various governmental units, and this approach has proved almost completely fruitless in terms of efficient and ordered development. In those cases where subdivision controls have been administered by regional planning bodies, the net result has been the minimum assurance that new streets and utilities meet minimum standards and connect to existing networks (Healy 1976). In fact, our present system of land use control is almost a guarantee for sprawl. What must now be recognized is that local control of land use has failed, and a new approach must be developed.

It would appear that any meaningful control will have to emanate from the state level. The police power, eminent domain and taxation are powers of the state which must delegate this authority to the local governmental units. Use of these powers in new ways will require a new content for authority delegation (Council of State Governments 1975). Replacement of long established methods for allocating land to meet virtually unconstrained demands by a management process which balances these demands against the limitations of a finite resource requires a degree of leadership and a technical expertise that states must help provide (Council of State Governments 1975). Issues beyond local concern, in terms of jurisdiction and financial capability, must be handled by an extra-local body. Few states have such a policy, and Ohio is among those states in which statewide land use planning is still in the talking stage but at least preliminary discussions are taking place on possible procedures and approach.

In November 1974, a group of Ohioans met at Kent State University to discuss land use issues facing the state. Among the issues raised by the group was that of converting agricultural land to urban uses. Their report included the following:

Some of Ohio's best agricultural land is being converted to urban uses

(frequently poorly conceived urban uses) at a time when the nation, and the world, needs more food and fibre. The recent move toward use value taxation will solve only part of the problem. Agricultural land must be protected as a scarce commodity.

The group recommended the establishment of a cabinet-level agency within the state government charged with the responsibility of carrying out the following activities:

1. Inventory and coordinate the various land use decisions now being made by various state agencies.
2. Recommend to the governor and state legislature steps to be taken to develop a comprehensive land use policy in Ohio.
3. Provide educational and technical input to the state, regional agencies, and local governments in the area of land use planning (The American Assembly 1974).

The group fell short of recommending a strong land use control law with a state regulatory commission. The Farm Bureau Federation, deeply concerned with the demise of the agricultural land in the state, has taken a somewhat stronger stance in calling for the creation of a statewide resource policy, planning and coordinating commission whose primary purpose would be the development and recommendation for adoption to the Ohio General Assembly of a state land use and natural resource policy to be used as a guide for local, regional and state land use planning (Ohio Farm Bureau Federation 1974).

Any move to curtail local government control of land use in Ohio will almost certainly meet strong political opposition by the home rule advocates. There are indications, however, that the climate may become more conducive to legislative initiative at the state level and there will be issues upon which both local and state control advocates can agree. Steven Brown and James Coke (1977) point out that while there are differing attitudes between the advocates of state control and local government control of land use. They are not diametrically opposed but

rather stress different aspects of their common experience. The climate of public opinion is more conducive to experimentation and innovation in land use policy than had been anticipated. While public sentiment has not yet crystallized around specific policy alternatives, the climate of public opinion is suited for legislative initiative at the state level.

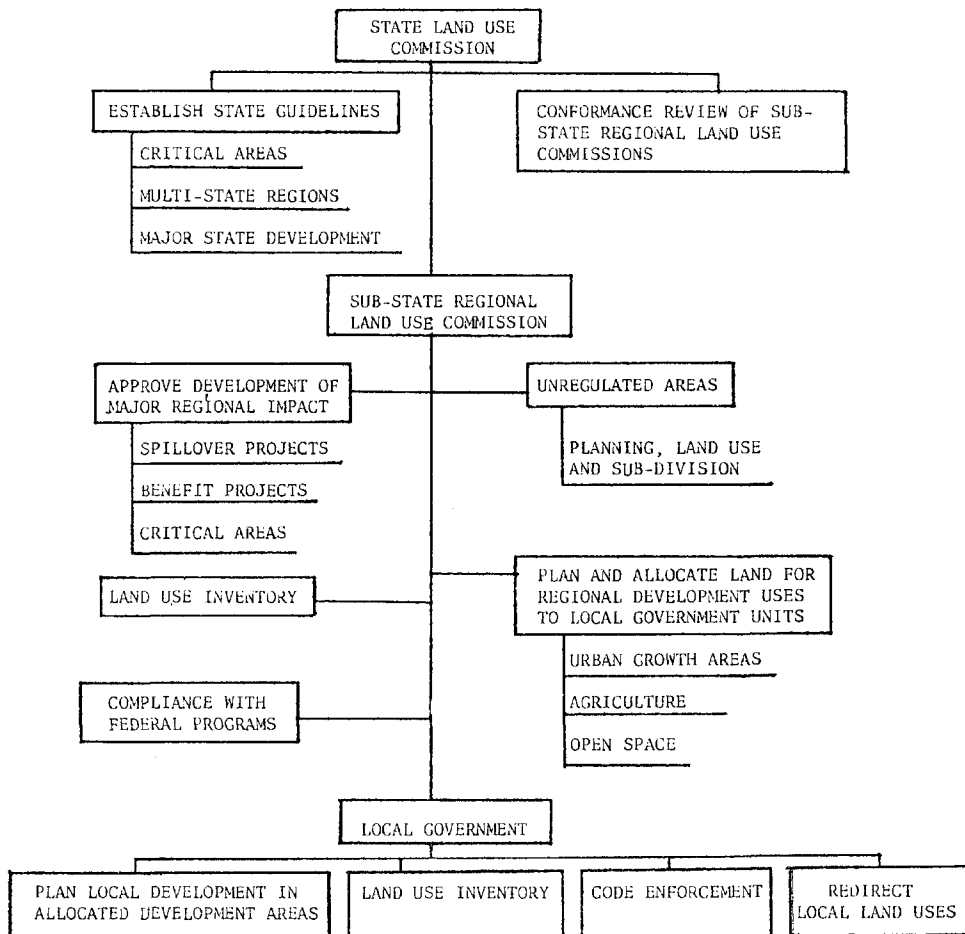
While new state land use control legislation is being sought by many groups, the fact is that it is not now generally available. Thus, regions and local planning groups must develop their own workable system as best they can. The NEFCO region has not been more or less successful in allocating its land resource than other similar regions. Needless to

say, the region has not been successful in preventing wholesale conversion of land uses and the time is rapidly approaching when large portions of it will have no farm or open space land remaining. Whether the "Quiet Revolution" referred to by Bosselman and Callies (1971) means the overthrow of local government control of land use is unclear. What is clear, however, is that the process of change will be a slow and exhausting one.

A PLANNING AND ALLOCATION MODEL

An organizational model relying primarily on state directed control is proposed (table 1) with a full recognition of the problems of implementation and

TABLE 1
Organization for a state land use planning and allocation process.



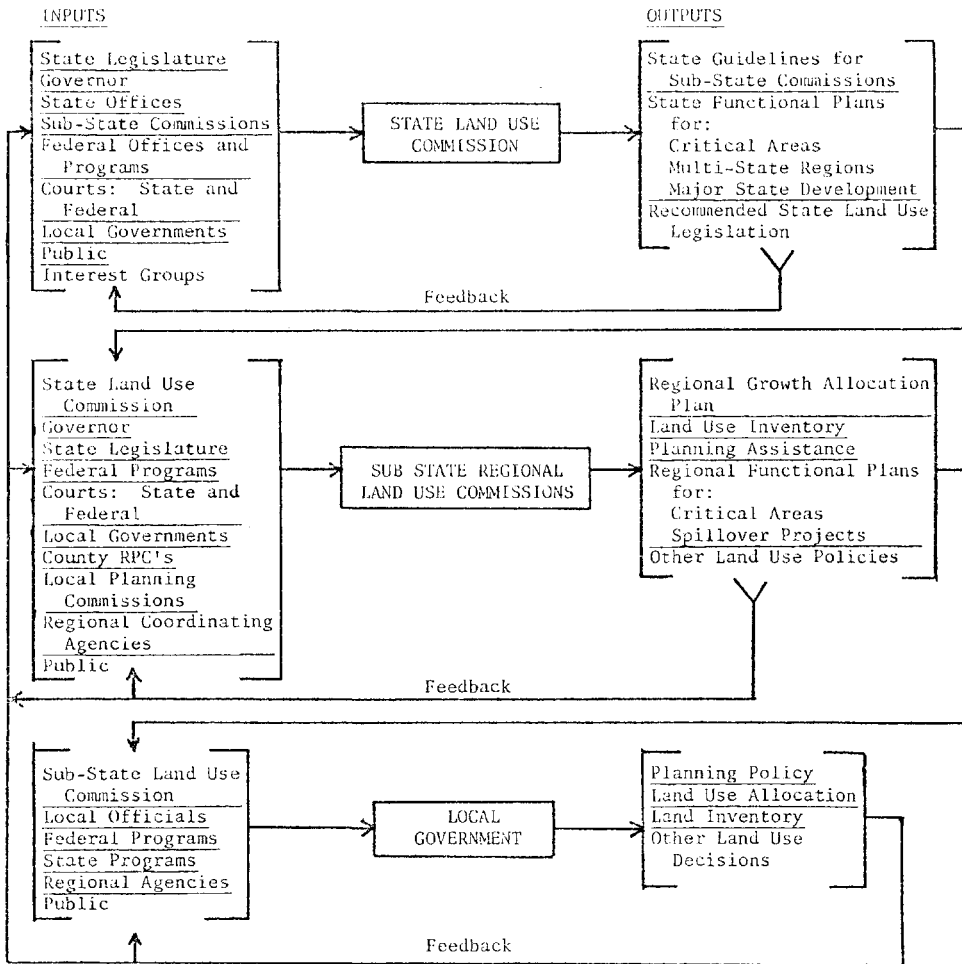
the possibility that it may not be the most effective approach. Linowes and Allensworth (1975) asserted that state planning is not new. It existed since the 1930's but has not been particularly effective. The difficulty in allocating responsibilities and powers among governments and distribution of the organizational, management and financial responsibilities among the component parts of the process may give pause to even the most skilled administrators.

The proposed state, regional, local management system is admittedly a compromise accommodating both the

state control and local control advocates (table 1). The state commission would have control over critical multi-state regions and major state development areas; the sub-state commissions would allocate land for various urban uses to various governmental units, approve projects with regional impact and monitor compliance with federal and state programs. The local governments would plan their land use, but only within a specified developmental areas, and would be responsible for enforcing local subdivision and building regulations.

The three-tiered hierarchical land use

TABLE 2
State land use model.



A modified model after Allensworth's (1975) The Political System of the Planning Commission.

control system could function as shown in table 2. The State Land Use Commission would be the organizational unit or system whose outputs would direct the whole system. At the same time, the Sub-State Land Use Commissions and local governments could fulfill their own objectives while effectively functioning within the state land use system. This proposal would appear to meet many of the criticisms of a highly centralized state land use controlled system.

The State Land Use Commission constitutes direct state control over land use planning but places significant control at a sub-state level where decisions may be less subject to local economic and political pressures. Such an approach would require a change in the distribution of functions between levels of government but it would allow for a more realistic growth policy in which land use planning and development can be put into a practical perspective. In addition, the externalities and interdependencies issues can be more meaningfully addressed. As Levin *et al* (1974) pointed out,

"Externality is even a greater problem in land use regulation than intramunicipal problems relating to failure to implement comprehensive plans. As presently constituted, land use controls do not take into account the growing interdependency among municipalities . . . The failure to give adequate consideration in land use decisions to impacts on neighboring communities grows out of the competitiveness spawned by struggles to preserve and enhance the local tax base . . . and perceived dangers from the intrusion of social and physical problems. Through a proper land use inventory many of these conflicts could be avoided."

Certainly such an approach will have consequences that will require the acceptance of the concept of land as a resource rather than a commodity. The right to own and the right to develop cannot necessarily be equal rights. This concept differs from the existing concept of land ownership and will surely be opposed in the market place. Development limitation is recognized in the de-

velopment rights approach, phased development and preferential tax assessments, which have been accepted in various areas throughout the United States.

The approach presented is similar in concept to the Land Use Law in Hawaii, the function of the Metropolitan Council of the Twin Cities, the Site Location Law in Maine, the practice of the San Francisco Bay Conservation and Development Commission, and the Massachusetts Zoning Appeals Law. It is also consistent with what is perhaps the best example of citizen initiative in innovative land control, the California Coastal Zone Conservation Act, better known as Proposition 20, which the people voted into law in an effort to limit development in the coastal areas of the state.

It is an undisputed fact that a state has the power to effectively control land use, if it is willing to pass the enabling legislation and give sub-state commissions the authority to regulate the physical growth and development process. Without this authority, the NEFCO Area and other urban areas will not be able to effectively develop a coherent and orderly land use control program which will limit and guide the conversion of land to urban uses.

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