Land Use Law (I): Congress on Verge of a Modest Beginning

For nearly 4 years now, land use policy legislation has been gestating in Congress, and, if all goes as expected, it will be enacted into law by sometime early next year. The Land Use Policy and Planning Assistance Act of 1973, as the measure has been dubbed, is meant to add a major new dimension to the structure of environmental protection policies which has been emerging since the early 1960's. Indeed, there is scarcely any aspect of the problem of maintaining environmental quality—whether the trouble at hand be air pollution, water pollution, strip mining, promiscuous public works undertakings, or whatever—that can be coped with effectively in the absence of enlightened land use policies.

And, of course, such policies are concerned with much more than protection of the environment, for they have to do with the nation's physical—and hence social and economic—development. Although not resting on so broad a concept as "growth policy," land use policy will necessarily be a critical component of any strategy for guiding or redirecting patterns of growth. Therefore, few issues are more important, more complex, or more charged with political tensions than this matter currently before Congress of establishing a foundation on which sound land use policies can be built. Viewed against the magnitude of the problem addressed, the pending legislation represents a constructive but modest beginning.

Because this legislation hardly can be understood apart from the background of land use practices and planning in the United States, it is essential to examine that background.

The first zoning ordinance in this country was adopted by New York City in 1916 to prevent the garment district from expanding into the fashionable Fifth Avenue shopping area. Note well the negative emphasis here. The New York ordinance, which many cities would soon be following in letter or spirit, had to do simply with keeping what were deemed incompatible uses from occurring within the same area.

This ordinance and the subsequent trend of local zoning which it characterized represented a narrow, limited approach to regulating the use of land in the interest of environmental quality. The zoning official was, in effect, a policeman rather than the instrument of a policy based on natural and humanistic values which would not have allowed much of the urban setting to become a barrens of concrete and steel.

The local governments were, of course, creatures of the state governments, but during the 1920's the states began delegating responsibility for zoning to the municipalities. At the time, this was seen as a reform. The Standard State Zoning Enabling Act published in 1922 by the U.S. Department of Commerce—then headed by Secretary Herbert Hoover—served as a model. According to its terms, the local governments would assume the police powers necessary for zoning and other land use regulations and would not have to look repeatedly to rural-dominated legislatures for special acts. A state's enactment of the model law was then regarded by progressive-minded urbanites as an encouraging step toward "home rule."

Boost for Planning Profession

Land use planning as a profession received an enormous boost from the passage in 1954 of the Urban Planning Assistance Act that provided for the so-called "701 program" under which large sums ($100 million in fiscal year 1972 alone) of federal money have gone into state, local, and regional planning activities (with local and regional entities getting the great bulk of the money). Substantial funds for planning also have come from various other federal programs, and, at least in terms of the increase in numbers of planners and planning entities, progress has been spectacular. In the early 1950's there were fewer than 250 active planning professionals in the United States; by mid-1972, there were more than 6200. Furthermore, over the same period more than 200 metropolitan planning agencies were established and some 4000 comprehensive development plans prepared.

The proliferation of plans and planning agencies has not, however, resulted in a general reform of zoning and land use practices. Planning activities have generally been off in a corner away from the hurly-burly of the political process, whereas zoning has been in the thick of that process. Applicants for zoning changes and variances have often come on strong with campaign contributions (and sometimes outright bribes), together with the backing of banks, insurance companies, labor unions, and other local or outside interests having both a stake in the outcome and plenty of clout.

If in recent years some city councils, county commissions, and local zoning boards have been more resistant to such pressures, this has been due less to the influence of professional planners than to an increasing environmental awareness and militancy on the part of many citizens in states such as Florida and Colorado where the pressures of growth and development are intense. Further, it can be said that a strong "anti-growth" attitude among the citizens of a particular community may be no better justified than a recklessly permissive attitude, and may reflect no more favorably on the effectiveness and influence of established planning and zoning programs.

The current interest in land use policy is in part an outgrowth of what, in many places, is clearly a genuine land crisis. To be sure, there is anything but a shortage of land in the United States, taking the nation as a whole. By the year 2000, urban regions will, according to projections prepared for the Commission on Population Growth and the American Future (Fig. 1 and Table 1), cover some 487,000 square miles, as opposed to the 197,000 square miles contained within such regions in 1960. But this will represent only 16.4 percent of all land in the United States, excluding Hawaii and Alaska. Vast areas will remain thinly populated, and even the urban regions will not constitute a single supercity but rather—in the words of the Population Commission—"a regional constellation of urban centers and their hinterland."

Yet, while there is no general shortage of land, there is widespread abuse and misuse of land, both in urban re-

gions and in regions still largely undeveloped. The several categories of problems resulting from such abuse and misuse include the following:

• *A decline of environmental quality within urban regions.* "Urban sprawl" is one of the weariest of clichés, but the problems capsulized by this term are still very much with us and, in some places, become more aggravated by the day. New subdivisions are still often being built far beyond the reach of established urban services, in areas where efficient sewage collection and treatment are necessarily absent and where existing roads are inadequate to handle heavy new traffic flows.

Strip development along highways—a problem long recognized and long neglected—continues to occur, with the hamburger and fried chicken drive-ins, the pizza parlors, the used car lots, and the shopping centers proliferating endlessly. The scarcity and hence the extraordinarily high value of sizable tracts of strategically placed undeveloped land in urban areas generates powerful economic and political pressures to convert such land to high intensity use even though the crying need may be for open space and public parkland (of this, the accompanying article about the controversy in Yonkers, New York, over a huge shopping center proposed for land owned by the Boyce Thompson Institute provides a prime example).

In general, the standards of urban development have been so lax and so uneven that many people have come to regard land development as just another form of pollution. For instance, owners of single family homes generally oppose the construction of high-rise, multi-family apartment or condominium buildings in their neighborhoods. They assume, often correctly, that the developer will try to maximize his profits by squeezing as many living units as possible onto the land rather than take advantage of the fact that, if properly designed, high-rise development can offer the distinct environmental advantage of allowing much of the site to be left as green space or as a neighborhood park. One can all too easily find examples of such problems as have been described here in practically any fast-growing urban region, whether it be the San Francisco Bay area, southern California, the Colorado Front Range, peninsular Florida, or the expanding metropolises of the East and Midwest.

• *Suitable and convenient sites for necessary utilities and public facilities are being lost—and environmentally unsuitable ones are still sometimes being selected.* With foresight and plan-

Botanical Laboratory's Plans to Sell Land for

A fairly typical urban land use drama is being played out in Yonkers, N.Y., where a long-standing resident of the area, the Boyce Thompson Institute for Plant Research, has revealed that it intends to sell 118 acres of its 146-acre estate to the Taubman Company, a large Michigan shopping center developer. The land is not currently zoned for commercial use, and citizens of this heavily populated residential area along the Hudson River in northern Westchester County do not want to see it converted to intensive commercial use.

Boyce Thompson, a hitherto benign organization that went quietly about its business, is finding itself in a highly uncomfortable position, caught between the pressure of community political action and the lure of an $8 million package deal on its land.

Citizens of Yonkers fear the changes that the proposed shopping center would bring to their community. Of the 700 or so shopping centers added annually to the face of America, most are constructed not in downtown areas, but in the suburbs. While many people initially welcome the convenience and pseudo-community atmosphere created by large, modern, enclosed malls, they are discovering serious disadvantages to them. Besides leading to increased automobile traffic and air pollution, say critics, the construction of large suburban shopping centers undermines efforts to revitalize urban centers by encouraging urban sprawl, making it more difficult to develop urban mass transit systems, and draining business away from downtown merchants.

The $50 million center proposed for Yonkers is designed to include four major department stores and 160 smaller shops and would be one of the largest of its kind in New York State. There would be parking for 7,000 cars to handle the expected 30,000 a day, plus several hundred trucks.

Members of ACT (Active Citizen Taxpayers) for Yonkers, a group set up in Yonkers last spring to fight the center, feel this project is particularly inappropriate for their neighborhood. They say the Boyce Thompson property—rolling land covered with grass and trees—is one of the last green spaces left in the city, that traffic would be suffocating, and that existing utilities are inadequate to handle the needs of the center. In addition, they say, the development would ruin the character of the area and destroy any chance for revitalizing Getty Square, the downtown business district a mile or so to the south, or for expanding the Cross County shopping center, which services southern Westchester County.

Alfred Taubman, the company's president, plans to solve the traffic problem by widening two residential streets into two six-lane highways on the north and south borders of the land. A Taubman official says the center will not compete with downtown business because it will draw dollars that were going out of the community anyway. The Taubman attitude is that the people don't know what they are talking about and they'll love the center once they get it. As Taubman said to the *New York Times* last spring, when citizens of a Detroit suburb succeeded in thwarting his plans for a new center there, "We never build a development in a community that demographically, that's not to say emotionally, doesn't need a shopping center."

The issue has created considerable mistrust between the Boyce Thompson Institute and the Yonkers people and their allies in neighboring Hastings-on-Hudson. The latter say the institute's celebrated interest in ecology does not extend to preserving the ecology of the neighborhood.

The Boyce Thompson Institute, housed in a capacious brick mansion built in the 1930's, is one of the last

ning on the part of public officials and utility executives, the sites that will be needed for airports, highway rights-of-way, reservoirs, power plants, and so on, can either be acquired in advance or zoned for uses (such as farming or forestry) that will not preclude the eventual development there of the essential facilities. The fact is that such foresight generally has not been exercised, with the result that desirable sites are being preempted by housing or other forms of development that could just as well have gone elsewhere. Utilities have sometimes secretly bought sites against long-term needs, but, as repeated controversies over power plant siting have shown, there is no proper substitute for having the selection of such sites either made or ratified (and at an early stage) by public officials.

Just as appropriate sites for public facilities are often lost through lack of advance planning and zoning, the sites finally chosen and used for such facilities are sometimes highly inappropriate, at least from an environmental standpoint. A classic case in point was the Dade County (Florida) Port Authority's decision, joined in by the Federal Aviation Administration and assented to initially by officials of the National Park Service and a number of state agencies, to select a 39-square-mile site in the Big Cypress Swamp for a pilot training facility that might ultimately become one of the world's great jetports. The controversy arising from that decision led in early 1970 to a demand by the Nixon Administration that the training facility be removed from the Big Cypress—with the result that now the jetport, if it is ever actually built, will (while avoiding the Big Cypress) intrude deeply into an Everglades water conservation area near Miami.

The jetport dispute was one of the more significant factors causing the President's Council on Environmental Quality to come forward in 1971 with a land use policy bill. This controversy was also among several disputes over the siting of major facilities which led Senator Henry M. Jackson (D–Wash.), chairman of the Senate Interior Committee, to begin work on such legislation in 1969.

● *Promiscuous development of vacation homes is causing degradation of wild and scenic areas that should be protected for general public benefit and enjoyment.* Whether one looks to the Big Cypress Swamp in South Florida, the Adirondack Mountains of upstate New York, the coastal reaches of Maryland and Virgina, the alpine areas of the Rockies, or the deserts of

Shopping Center Alarms Residents of Yonkers

reminders of gracious living along the Hudson. Its charter is simple: it can attack any problem of plant or animal life anywhere in the world whose solution will advance the welfare of mankind. About half of its income comes from federal and foundation grants and industrial contracts, the rest from its endowment. It has laboratories in Texas and California, where it studies pine beetles. But it has been forced to alter the nature of its outdoor plant research in Yonkers because of the pollution that has resulted from turning old estates along the river into housing developments.

The institute is seriously considering a move to the campus of Cornell University, where it has been invited to relocate. (The state legislature recently allocated $8.5 million to Cornell for building the institute a new headquarters.) Its managing director for 24 years, George L. McNew, says the institute is reluctant to leave its old home and abandon its cherished independence, but that unless it moves it will eventually have to reorient its research entirely to laboratory work.

People in ACT contend that the institute wants to make a fast buck on its property and leave, and they say McNew has reneged on a promise not to sell the land for any use that wouldn't fit in with the community. They would like to have the land bought for a park, but the city can't afford it. So they say they would be happy to settle for an industrial park—a use for which the land is now zoned—which they envisage as a tasteful gathering of insurance companies and the like. Workers would be "in at 9, out at 5, 5 days a week. Not like a shopping center which is open 12 hours a day, 7 days a week," says one resident.

McNew says the institute tried to find an industrial buyer, but the last real possibility, a purchase by Massachusetts Mutual Life Insurance Co., fell through at the 11th hour because of a "defect in the contract." So when Taubman came along it was with an offer the board of directors couldn't refuse.

McNew says critics of the plan have been unable to come up with a realistic alternative use for the land and tends to dismiss them as a coalition of local commercial interests and "people who want green." McNew seems to feel that the proposed shopping center is the next best thing to a park and would do wonders for Yonkers' tax base. As evidence of faith in the project, he points out that Boyce Thompson might decide to stay and continue operations on its remaining 30 acres.

A major obstacle stands in Taubman's way—in order to build, he must persuade the city council to rezone the property. All but one of the 12 city council members have expressed opposition to rezoning, which they called "special-interest, privileged spot-zoning." Nonetheless, the prevailing opinion among ACT, which purports to represent 15 civic organizations and 25,000 individuals, is that, as one said, "With Taubman's money, anything is possible."

The council is up for reelection this month, and citizens fear that lame-duck councilmen, whether out of malice or second thoughts at the prospect of an additional $5 million a year in real estate and sales taxes, will change their votes in favor of rezoning.

A Taubman official says the company's plans are now in limbo. But citizens find it ominous that Taubman has reportedly invested over $600,000 in the project and has taken over payment of $200,000 a year in taxes on the land. (The option to buy extends through 1975.) Citizens also point to several new bank branches that have opened in the area. They aren't doing much business now, says one ACT member, but "they can smell the shopping center."—C.H.

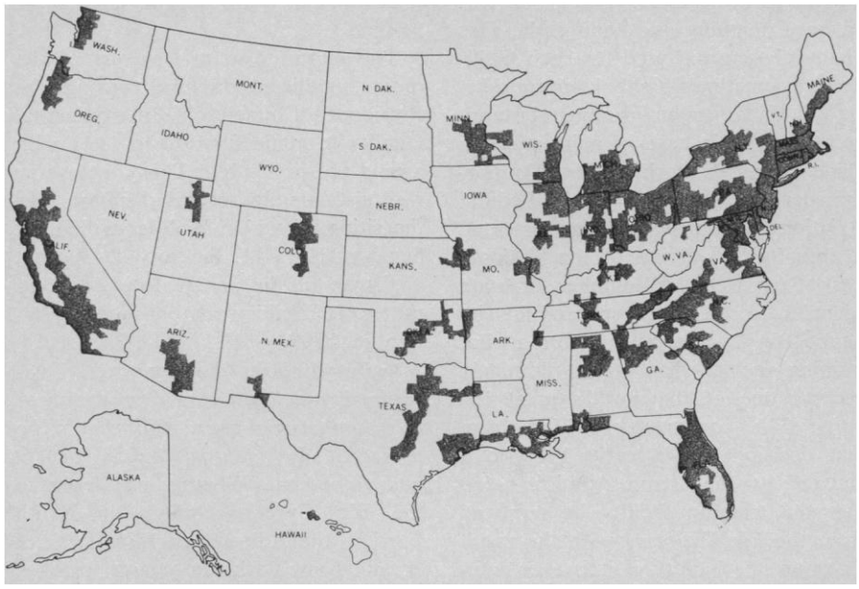

Fig. 1. Urban regions, year 2000; based on a projection of two children per family. [Source: Commission on Population Growth and the American Future, *Population and the American Future* (Government Printing Office, Washington, D.C., 1972)]

New Mexico and Arizona, the land sales companies have been eagerly buying up land to be subdivided and sold on installment to buyers susceptible to high pressure sales tactics—and who may themselves be naive small-fry speculators. The growth of the land sales business has been astonishing; the total number of lots sold in 1971 (by some 10,000 subdividers) runs to an estimated 625,000. In Florida alone about 200,000 lots are registered each year with the state land sales agency, and, while some of the lots are in well-planned retirement home subdivisions, many are in places such as the Green Swamp and the Big Cypress, both being areas important for wildlife and for aquifer recharge.

Outright fraud is practiced by some of these purveyors of vacation home lots, with purchasers discovering belatedly that the lots probably can never be used, either because of inaccessibility or because they are in an area prone to flooding, mud slides, or other natural hazards. In other cases, the land can be used, but only after alterations—draining swamps, scarring mountainsides (with the deep cuts and fills necessary for road building), or filling coastal wetlands—that do severe harm to regional hydrologic and ecologic systems. Although it has proved a grossly inadequate remedy, the Land Sales Full Disclosure Act of 1968 was meant to protect the land buyer. Essentially nothing has been done to cope with the ultimately more serious problem of protecting the land itself.

Table 1. Population and land area of urban regions, 1920 to 2000. [Source: Jerome Pickard, "U.S. metropolitan growth and expansion 1970–2000 with population projections," prepared for the Commission on Population Growth and the American Future at the Urban Land Institute, Washington, D.C., December 1971. [Reprinted with permission from ULI-Urban Land Institute, 1200 18th Street, NW, Washington, D.C. 20036]

	1920	1940	1960	1980*	2000*
Number of urban regions	10	10	16	24	25
Population					
Millions	35.6	53.9	100.6	164.6	219.7
Percent of total U.S. population	33.6	40.8	56.1	73.4	83.1
Land area†					
Square miles	60,972	94,999	196,958	395,138	486,902
Percent of total U.S. land area‡	2.1	3.2	6.6	13.3	16.4
Gross population density of people per square mile	584	568	511	417	451

* Based on Census Bureau series E population projection (based on a fertility assumption of 2.1 births per woman). † Excludes urban region of Oahu Island, Hawaii. ‡ Coterminous U.S. excluding Alaska and Hawaii.

• *Prime farmland is being lost to development activities that could be required to use land of little agricultural potential.* Statistics reported by the U.S. Department of Agriculture in its *National Inventory of Soil and Water Conservation Needs, 1967* indicate that, as of 6 years ago, about 10 percent of the class I, II, and III land in the United States (land in classes IV through VIII is either marginal or useless for growing ordinary field crops) had been "built up" or otherwise converted to urban use. If, as prophesied by consultants for the Commission on Population Growth and the American Future, urban regions are to embrace more than twice as much land by the year 2000 as they did in 1960, the loss of prime farmland to development could increase correspondingly.

The modest loss of farmland to date has been far more than offset by increases in farm productivity resulting from improved seeds and other advances in agricultural science and technology. Yet, while the gains in productivity continue (though at a slower rate than in the past), future production may not be sufficient to satisfy effective demand at acceptable prices. The rapidly rising demand abroad for American wheat, soybeans, feed grains, and other farm commodities, together with increasing consumption of farm products at home, may herald an end to the old problem of crop surpluses.

During discussions of land use legislation on the Senate floor this year, Senator George Aiken (R–Vt.) observed that land use policy should be viewed as highly relevant to both farm policy and energy policy. The United States, he said, should take full advantage of its ability to produce farm surpluses for export in order to earn the money to pay for what is expected to be its greatly increasing importation of foreign oil.

And, quite apart from such considerations of national policy as this, some will argue that the preservation of certain farmlands uniquely suited to specialty crops can be justified simply in terms of keeping such crops available to Americans at reasonable prices. Here, it is relevant to note that, from December 1969 to December 1971, citrus acreage in Orange County, Florida—where the Disney World project was then being built—declined by some 8 percent, or 5400 acres (freeze losses were a major factor, but

the feverish speculation in land spurred by the Disney development may help explain why more freeze-stricken groves were not replanted). The value of the citrus groves of Orange County and the rest of Florida's central highlands goes far beyond that of the fruit produced. These groves are highly scenic, and they represent a productive use that is compatible with the highland region's vital function in the recharging of the state's great Floridan aquifer.

In sum, by 1970, when general land use policy bills first came to be seriously considered in Congress, there was abundant evidence of the need for legislation in this field. Furthermore, several existing laws had pointed up the importance of effective land use regulation without actually bringing about much movement in that direction. Going back a number of years, the laws governing various federal grant-in-aid programs—for redevelopment and housing, highways, airports, and the like—had required that the projects benefitting from federal assistance be consistent with general land use plans of local governmental bodies. The Intergovernmental Cooperation Act of 1968 required that applications for federal grants related to a long list of purposes, from mortgage insurance to sewer construction and flood control projects, be reviewed and commented upon by planning agencies at the metropolitan, regional, and state levels. For such requirements for planning coordination in the case of specific projects to serve their purpose, it obviously was essential that the states and localities have general plans and policies which really governed land use practices. The same was true of the requirements of new federal air and water pollution laws that land use planning and regulation be employed as a major tool for achieving or maintaining prescribed air and water quality standards.

A major aim of the land use policy bill tentatively developed in 1970 by Senator Jackson (D–Wash.) and his colleagues on the Interior Committee was to have the states reassert the authority over land use which they had so freely delegated to the local governments back in the 1920's and 1930's. This initial Jackson bill would have made each state government responsible for having a *comprehensive* state land use plan prepared and faithfully observed.

One state, Hawaii, had long before, in 1961, adopted a land use law that called for establishing four zoning districts—conservation, agricultural, rural, and urban. Every part of the state was to be placed in one of these districts. No other state had enacted such a law, however, and most still had no broad state-administered land use control program of any kind. Hawaii was atypical, probably because of its small size and the importance of preserving its very limited amount of arable land.

Focusing on the "Big Cases"

The Nixon Administration, in its land use bill submitted to Congress in 1971, was in full accord with the idea of having the states reassert authority but disagreed with Senator Jackson in his emphasis on statewide comprehensive planning. The Administration measure followed the concepts contained in the draft Model Land Development Code prepared by the American Law Institute (ALI). That code called for the states to take a highly selective approach focusing on land use questions of more than local significance, or on the "big cases," to use the term employed by Richard F. Babcock, the Chicago attorney who led in the code's formulation. According to Babcock, under the ALI code some 90 percent of all land use questions would continue to be disposed of by the localities without interference from state government.

Whatever difficulties there might be with this approach, it clearly offered one indisputable advantage—it held out to the local governments an assurance that their authority in land use matters would remain largely intact, thus making them more amenable to the proposed new role for the states. Any land use bill opposed by municipal and county governments across the nation would be a dead duck.

In 1972 the Senate Interior Committee came around essentially to accepting the Administration bill, and the selective, "big cases" approach was the one spelled out in the measure reported from the committee this year and passed by the Senate in June. The Senate bill, which runs to 80 pages and is too complex to be easily summarized, would have the states establish a land use control program concerned with several categories of "areas and uses of more than local concern," as broadly defined below.

1) "Areas of critical environmental concern," for example, historic areas, significant wildlife habitat, beaches, flood plains and other "natural hazard" areas, and "renewable resources lands," such as farmlands, forests, watersheds, and aquifer recharge areas.

2) "Key facilities," such as major airports, highway interchanges and frontage access highways, sports arenas, and facilities for the generation or delivery of energy.

3) "Large-scale development," as in the case of an industrial park or major subdivision.

4) "Public facilities or utilities of regional benefit," as in the case of a public housing project, a power plant, or a waste disposal facility which might be arbitrarily excluded from a locality by exclusionary zoning.

5) The location of new communities and the control of land use around such communities.

6) "Land sales or development projects," defined as any subdivision or housing project of 50 or more lots or dwelling units located 10 miles or more from the nearest urban region or from the nearest local jurisdiction certified by the governor as capable of regulating such a project.

The act sets forth two methods by which the states are to implement the new land use program, these to be employed either singly or in combination. One method would be for the state itself to undertake direct planning and regulation. The other method, and the one preferred by the Interior Committee, would be for the state to establish guidelines and criteria by which local governments would implement the program, subject to the state's review and approval. A few states—Maine, Vermont, and California among them—have over the past few years established programs whereby certain kinds of development are regulated directly by the state. The facts of political life being what they are, however, most states are likely—at least initially—to adopt the method of indirect control favored by the Interior Committee.

Under the Senate bill, the federal government would assume the obligation of keeping all its activities on nonfederal lands (as in public works projects carried out or supported by federal agencies) consistent with the state land use programs; exceptions could be justified only for reasons of "overriding national interest," as determined by the President. Federal lands would

ordinarily be managed in coordination with the management of adjacent nonfederal lands, an important matter in western states where federal and nonfederal lands often exist in a complex checkerboard pattern.

Also, the federal government would support the new state and local land use control program with grants made to the states, the total to come to $100 million annually over an 8-year period. The states would bear 10 percent of program costs during the first 5 years and a third of the costs thereafter. To remain eligible for continued financial assistance a state would be expected to develop, within 5 years, a program of land use controls for coping with the kinds of problems earlier described. Administration of the act would be the responsibility of an office of land use policy in the Department of the Interior, assisted by an interagency advisory board and (in cases where a state's eligibility for continued assistance is in question) by an ad hoc hearing board that would include a governor among its three members.

The land use policy bill that the House Interior Committee is expected to report out before the end of the year is likely to be generally similar to the Senate measure. In spite of opposition from the political right and from many land developers, such legislation now appears to have won the support (or, in some cases, at least the grudging acceptance) of a variety of interests, including resource user groups, local and state officials, and environmentalists.

This has come about through the elimination of both the more controversial provisions of the original draft legislation and some which various senators and representatives wished to add. Especially notable in this regard was the Senate's rejection, by a vote of 52 to 44, of a provision favored by Senator Jackson which would have allowed federal authorities to withhold up to 21 percent of a state's allotted highway, airport, and land-and-water conservation funds pending its adoption of an acceptable program of land use control.

With few exceptions, the governors had strongly opposed this sanction, and the surprising thing is that it received as much support among the senators as it did. The land use bill pending in the House still contains a sanctions provision, but it is expected to be dropped.

Another thing that has kept the bill from miring in deep controversy was

Evolution: Tennessee Picks a New Fight with Darwin

Santayana's tag about those who cannot remember the past being condemned to repeat it has apparently been forgotten in the state legislature of Tennessee. The world was astonished when a Tennessee court in 1925 fined John T. Scopes for teaching Darwin's theory in defiance of the state's anti-evolution statute. Tennessee's lawmakers have now passed a new statute which sets the scene for a similar confrontation. Last month the National Association of Biology Teachers (NABT) retained counsel to challenge the statute in the courts, and a suit will probably be filed before the end of this year.

The old law, which remained on the books until its repeal in 1967, directly forbade the teaching of evolution. The new statute makes the legally more subtle stipulation that wherever Darwin's theory is taught, alternative (that is, Biblical) theories must be taught in parallel. Opposition in the legislature to the anti-evolutionists was not conspicuously brave. The measure passed the Tennessee Senate by a vote of 28 to 1 and the House by 54 to 15. The law reads as follows:

> Any biology textbook used for teaching in the public schools which expresses an opinion of, or relates to a theory about origins or creation of man and his world shall be prohibited from being used as a textbook in such system unless it specifically states that it is a theory as to the origin and creation of man and his world and is not represented to be scientific fact. Any textbook so used in the public education system which expresses an opinion or relates to a theory or theories shall give in the same text book and under the same subject commensurate attention to, and an equal amount of emphasis on, the origins and creation of man and his world as the same is recorded in other theories including, but not limited to, the Genesis account in the Bible. . . .

The Senate passed the measure without debate because of the presence of television cameras. As the sponsor of the bill, Senator Milton Hamilton explained at the time, "The reason there wasn't any debate is that the national TV came down here with the idea they would make us look like a bunch of nitpickers. You know, like barefoot Tennesseans." Which prompted the Nashville *Tennessean* to comment editorially, "If the senators are such a source of embarrassment to themselves, think of what they are to the rest of the state."

The equal time demand is one that has been pushed by fundamentalists in several states, notably in California, where determined pressure has been exerted on the State Board of Education (see *Science* 17 November 1972). Although the fundamentalists deny that there is any concerted campaign, many of those active in the various lobbying efforts are members of the Creation Research Society, a group whose 300 or so members all hold Ph.D.'s in a scientific discipline and believe in the literal truth of the Bible. A member who has been active in Tennessee is Russell C. Artist, a biology professor at David Lipscomb College in Nashville. Artist tried to persuade the Tennessee state textbook commission to adopt a biology textbook coauthored by him and other members of the Creation Research Society. When the commission refused Artist approached Senator Hamilton, the author of the new law and, like Artist, a member of the Church of Christ.

Locked in statewide battle with the Creation Research Society is the NABT. Having fought the society in California, the NABT is now girding its loins to combat the fundamentalists in Tennessee. Counsel has been retained in Tennessee, and the NABT expects that the case will be appealed by one side or the other right up to the U.S. Supreme Court. Expenses may reach $25,000 and the NABT is appealing for financial support. The NABT's case will be that the new statute is unconstitutional in that it contravenes the free speech clause of the first amendment and the due process clause of the fourteenth.—NICHOLAS WADE

the decision not to attempt to have it prescribe a *national* land use policy. Last fall, when an earlier version of the land use bill was under debate, the Senate turned a deaf ear to a proposal by Senator Edmund Muskie (D–Maine) to include substantive policies in the bill which, among other things, would have required that the states ordinarily exclude development from areas such as prime farmlands, flood plains and wetlands, and wild areas. The general policy would have been to favor redevelopment of existing communities and urban areas.

Although the Senate bill calls for special protective policies for areas of critical environmental concern, the states would be permitted wide discretion in defining the extent of those areas and the nature of permitted uses —and, indeed, with the sanctions provision eliminated, a state would be free not to adopt any program of land use controls whatever. By way of specific environmental standards the bill does little more than say that air and water quality standards prescribed under existing law must be observed and that land sales projects must not be located in natural hazard areas or built in such a way as to destroy natural values.

As pointed out in the report of the Senate Interior Committee, "there is virtually no consensus on the possible substance of national land use policies." Senator J. Bennett Johnston (D–La.) had, for instance, no doubt spoken for many when he disputed Senator Muskie's proposition that development must be excluded from flood-prone areas (Johnston contended that such a policy might apply to as much as a third of the land in his home state). To cite another example, the concept of preserving prime farmlands arouses much disagreement, not least among farmers, many of whom cherish the right to sell their land to developers for a handsome capital gain.

The one major point on which a consensus exists is that there is a need to establish a *process* of state land use regulation. The Senate bill does provide that, 3 years following its enactment, the Interagency Advisory Board will recommend to Congress such legislation as it may deem necessary for the establishment of national land use policies. In this endeavor the board will be aided by reports from the Council on Environmental Quality and the states.

If the pending land use legislation does soon become law, as seems likely, some improvement in land use practices should result. The legislation, however, has a number of inherent weaknesses. In 1972, the Florida Legislature, by passing the Florida Environmental Land and Water Management Act, anticipated the proposed national land use law to a remarkable degree, for both the new Florida law and the national legislation are based on the ALI model code. Some major problems that appear to be arising under the Florida law will be examined in a second article.

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Higher Education: Study Urges Altered Thrust in Federal Support

The federal government, whose funding policies in higher education have a coagulant effect on the status quo, should adjust its strategies to encourage flexibility, autonomy, and diversity among the nation's colleges and universities.

Such is the gist of "National Policy and Higher Education," a major report commissioned for the Department of Health, Education, and Welfare. The report is the second half of a project headed by Frank Newman, director of university relations at Stanford. The first half, which came out in early 1971 (*Science*, 19 March 1971), pointed out that higher education, despite its phenomenal postwar growth, was not adequately meeting the needs of the 1970's, but was becoming increasingly homogeneous, bureaucracy-laden, and rigid. In that report the task force broadly outlined how "going to college" could be transformed from a 4-year lockstep for 18- to 22-year olds into a flexible and diverse system offering a variety of experiences in tune with the needs of the young, the not young, the part-time students—in short, anyone who wants to learn.

Then secretary of HEW Elliot Richardson was so pleased with the report that he asked Newman to come back with another one on how the federal government could stimulate the recommended changes. Newman says the reason part two took so long is that the members, who served without federal compensation, are not "professional task forcers," but persons with full-time jobs to attend to.* Besides, they were busy asking themselves "very fundamental questions"—such as what the implications are of the current egalitarian approach to education.

The report points out that, since the beginning of the century, access to higher education has gone through three stages. Originally it was for the "aristocracy," and then scholarships made merit the prime criterion for admission. With the social movements of the 1960's, "equal access to all" became the cry. Now, suggests the report, is the time for a more realistic interpretation of this egalitarian approach—that is, the availability of higher education should be based on the motivation of the individual. College was once the key to high income and prestige; now, the report points out, it is only one avenue—for 60 percent of America's wage earners, the presence or absence of a degree has no effect on their incomes. (This does not mean that people should be discouraged from going to college, but that they should go with "realistic expectations" of what they want to accomplish.)

Federal financing practices have so intruded into higher education that they have distorted supply and demand, notes the report. Where funds go are too

* Panel members were Christopher Cross, House Education and Labor Committee; Don Davies, Yale University; Russell Edgerton, Fund for the Improvement of Postsecondary Education; Martin Kramer, HEW; and Bernie Martin, National Institute of Education. The reports will be issued as a book next January by MIT Press.