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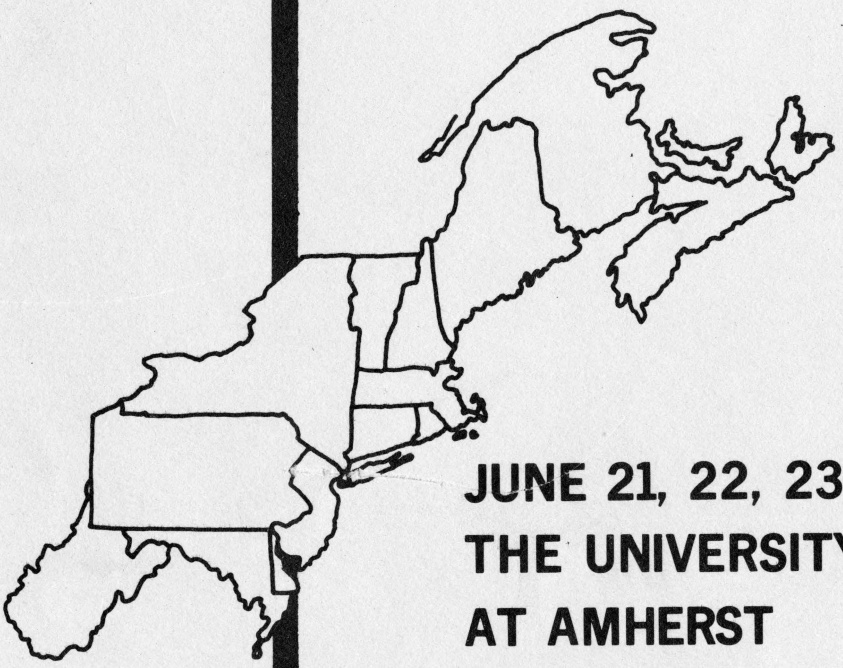

JUNE 21, 22, 23
THE UNIVERSITY OF MASSACHUSETTS
AT AMHERST

ALTERNATIVE LAND USE PATTERNS AND ENVIRONMENTAL QUALITY

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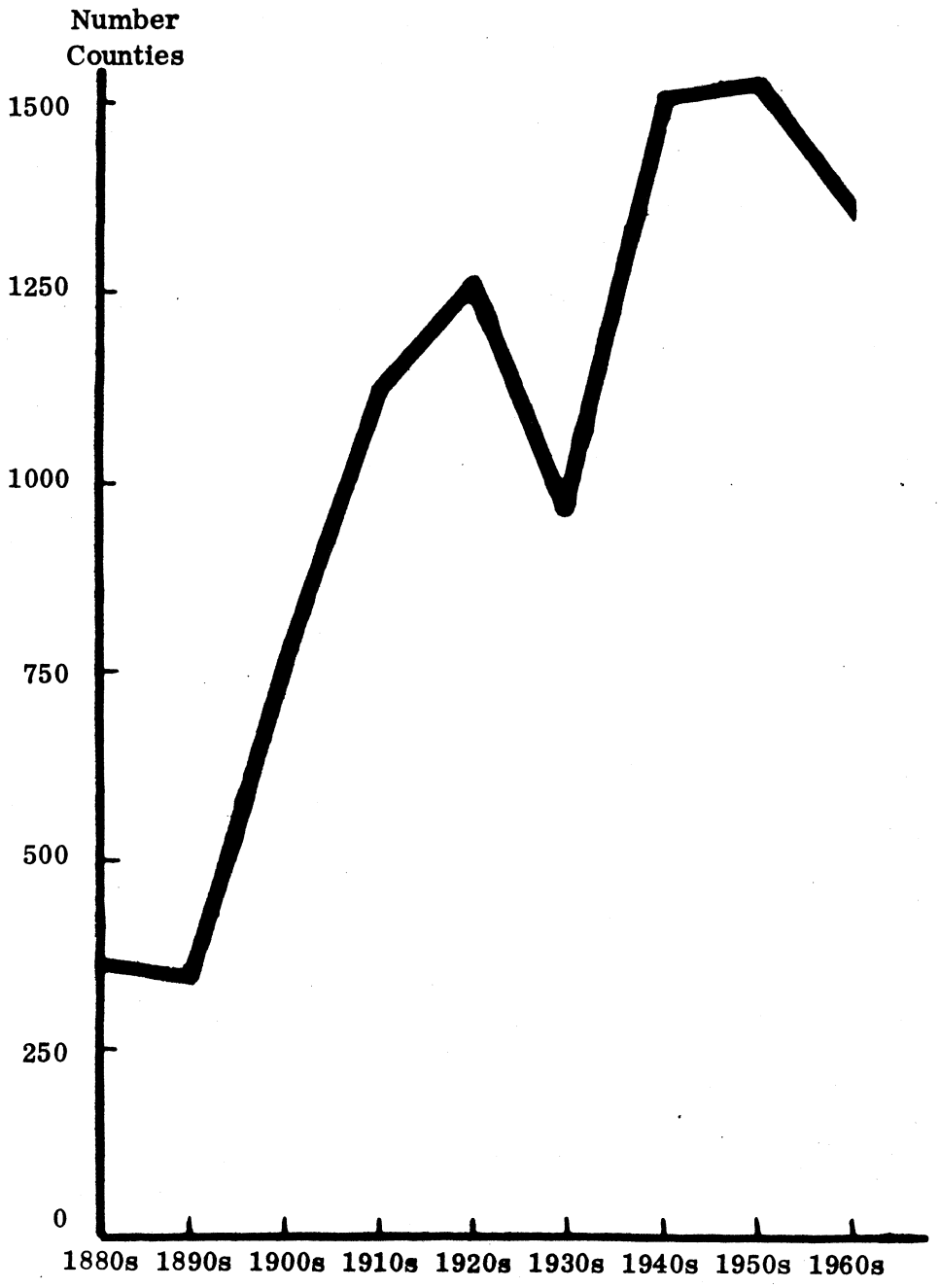
The geographical scale or the spatial grain of one's analysis largely determines the picture of land use patterns which emerges. As one moves from consideration of very large areas to a closer look at small areas, not only does the detail change but the whole picture appears differently. Land use patterns may be considered on national, metropolitan, suburban, and neighborhood scales.

At the national scale, the dominant fact is population concentration. The SMSAs of the country are, as a whole, growing rapidly; the nonSMSAs are nearly stagnant as far as population growth is concerned. There are, of course, differences in growth rates among SMSAs and among smaller cities and towns and rural areas of the nonSMSAs. Loss of population has been experienced by about half of all counties in the United States in each of the last three decades, nearly all of which are nonSMSA counties (Figure 1). Through the 1950s, there seemed to be a rising trend in numbers of counties losing population; this seems to have dropped off a little in the 1960s. About 60 percent of the counties losing population in any of the last three decades lost in all three of them, and many had lost in previous decades as well. The emptying out process is most marked in the center of the country, especially in the Great Plains, but it is by no means absent elsewhere. Essex County, Vermont has lost population in every decade since 1890, for instance, and some other northeastern counties have had considerable records of population loss.

Only a few SMSAs have lost population; some have grown more slowly than average, but obviously some have grown more rapidly. For some, especially in the Southwest, the growth rate has been explosive. While very high growth rates are possible only with substantial inmigration, most SMSAs now have a demographic momentum which will insure considerable future growth unless they experience net outmigration.

At the metropolitan scale, the dominant fact is the outward movement of population. In a great many cities, the city center is stagnant or declining, as far as population is concerned. Frequently it is undergoing major changes in racial, income, and social characteristics as well. One could cite a lot of statistics on this point, but they are unnecessary to this audience. The population growth is taking place on the periphery of the city or metropolis--in the suburbs. The latter are not only likely to be outside the legal boundaries of the central

Figure 1.
Number of Counties in the United States Losing Population, by Decades, 1880 to 1970



city; they are likely to be in another county, and often in another state as well. The old legal boundaries are less and less meaningful, at least in a statistical sense.

But this matter of decline in city center and pushing outward at the margins is a vastly older process than is generally realized. The usual census data not merely confuse what is happening, they positively mislead the average analyst. In 1950 there were 18 cities in the United States with 500,000 or more population; their total population increased by three times from 1890 to 1960, but their total land area increased by nearly two and a half times in the same decades. In 1950 there were 73 cities with more than 100,000 and less than 500,000 population; their total populations increased more than three times but their total areas increased nearly three times from 1900 to 1960. The published census data suggest that populations of these cities as groups, and of most individual cities, were growing more or less regularly, decade by decade. However, if comparisons had been made for cities of the same boundaries, the older cities would have been seen to have been losing population, and the growth would have been seen to be on the periphery, since 1890 or earlier. In recent decades, although some extensions in city boundaries have taken place, the process is now often too difficult and the boundary of one city frequently touches the boundary of another, so that expansion without outright annexation is impossible.

At the suburban scale, still a different picture emerges. Here, the dominant fact of land use is discontiguity of settlement. Subdivisions are not added neatly, one next to another, as the metropolitan area expands into the countryside; instead, subdivisions tend to leap out, to scatter, and to leave behind large areas of idle land. The Bureau of the Census has attempted to delineate "urbanized areas," those lands actually used for urban purposes; but a close reading of its definition reveals how large tracts of idle land may be included in an urbanized area. My estimate is that as much as 30 percent of the urbanized area as defined by the Bureau of the Census is idle land; and idle land outside of the presently urbanized area is much more extensive.

I am convinced that the intermixing of idle and developed tracts in the suburbs is a natural, perhaps an inevitable, consequence of the nature of the market for suburban land. The landownership pattern in suburban areas reflects its land use history--alienation from its original public owners, successive transfers among individuals, use for agricultural or other purposes, and other aspects. Only rarely will the units of such landownership coincide with the units needed for suburban builders and developers; land consolidation or land subdivision are often needed. Owners of undeveloped suburban land have often preferred to keep it idle; net income from farming or forestry may be low or negative and there are advantages in terms of a quick sale if the land is idle. The present value of this land is the consensus of expectations of its future value, when converted to

other uses, discounted back to the present, with allowance for risk of date and price at future conversion. If every owner and potential developer had the same expectation of the future, the only variable would be the interest rate at which different owners would be willing to hold land for price rises. In fact, differences of opinion exist on the various components of this formula; without such differences of opinion, there would be no opportunity for profit as such.

Owners of undeveloped land (like most other people) expect land prices to rise in the future. As one reviews the persistent rise of farm real estate prices (4 percent or more nearly every year since 1954) in the face of more or less constant net farm income, or looks at the equally persistent rise in prices of land for recreation purposes (apparently, from scanty data, in the order of 8 to 10 percent annually), or looks at trends in raw land prices in suburbs (apparently of the magnitude of 12 to 15 percent annually), this expectation of continued rise in land prices seems well founded. Another Great Depression, of the 1930s model, might bring land prices down, but little short of it would do so. The landowner has to decide, whenever presented with an opportunity to sell, if his expectations of future rise in land prices will more than offset his holding costs, including interest he could earn on his capital if it were invested elsewhere. If he has a reservation price, as he surely must, he can well take the view that he will get "his price" next year or the year after, if not now. And, if he can hold--as most such owners seem capable of doing--then he may well get that price, whether or not his holding was profitable.

The suburban builder is in a different situation. Most builders operate on thin equity; they cannot afford large investments in land, but rather must depend on frequent purchases of land to keep operating. They have organizations to keep going and to keep busy. Building sites are a rather small part of total building costs, in spite of a doubling of the share that land is in the total building cost, it is still of the order of 20 to 25 percent of the total. A builder can frequently pay 25 percent more for land than he thinks he should, and yet be better off than to refrain from buying a particular tract, run the risk of being without land, and of having his organization unemployed. If his competitors are also paying more for land, he may not be particularly disadvantaged in the total cost of his houses. There is considerable evidence that builders have been able to pass on, to house buyers, all increases in raw land price.

With the holders of land having high reservation prices and the expectation of getting their prices and the ability to hold on, while the builder is under considerable pressure to buy now, the persistent upward trend in suburban land prices is explained. The results of high land prices are several; for our present purpose, perhaps the most important result is that the course of development is irregular, with discontiguity among subdivisions nearly ubiquitous. The buyer takes the land he can get; there have been few added costs or penalties associated

with distant location, and few gains from contiguous development. The result is the land pattern often called sprawl--a more far-flung settlement than is necessary to accommodate the population. The resulting suburbs have houses too expensive to be afforded by the lower half or lower two-thirds of the income distribution, and the costs have been too high for the housing produced.

In many rural areas, including the Northeast, discontiguity of settlement has occurred in more or less rural areas which are really just more distant suburbs. This has included the placing of houses along existing roads, with the interior of the larger tracts, which frequently were previously farms, more or less cut off from access to the roads and more or less unusable. Given the present low density of land use in such areas, this pattern may not be disadvantageous, but such land would be difficult to bring into use if later demands should so require.

At the neighborhood level, the dominant fact about much of the housing built since the end of World War II has been the location of separate single family homes on separate lots or tracts of land. The land within the individual tract is often used inefficiently, primarily to provide distance and hence some insulation from other people, yet not otherwise very useful to its owner. In such subdivisions, there is generally a lack of common land, for parks, playgrounds, and other similar uses. There has been much talk, and some practice, of clustering of houses and of use of the land saved in this way to provide parks and other common areas. There has also been the development of suburban apartments, some of which have rather extensive grounds and facilities for their tenants or owners. Land use within subdivisions may not be efficient nor very intensive, yet only rarely is the land within a subdivision largely unused; the latter occurs primarily between subdivisions.

Environmental Quality Is Man-Made

Increasingly in the modern world, environmental quality (or its lack) is man-made. The fruits of our educational, scientific, technological society and economy for several hundred years have been an increasing outpouring of goods and services for our consumption. Almost all this emphasis has been upon production; the factory sought to produce something, the business office sought to sell it, and even the economist measured only production. We have very largely ignored the consumption or use of the articles or services produced. In recent years, there has been increased concern about safety of automobiles and other goods, but there is still relatively little emphasis upon the efficient provision of service to the consumer, nor even upon the repair and servicing of the gadgets made. And there has been almost no consideration of the disposal of the residuals

from the consumption process. Every auto ever made will ultimately be junked, yet no auto has yet been designed to facilitate efficient junking; and the same applies to the host of other consumer goods which we buy.

The tonnage of residuals from the consumption process is approximately equal to the tonnage of goods consumed. All the water, fuel, food, building materials, vehicles, household gadgets, and other consumption goods moving into a city must be disposed of, to the air, to the water, or buried as solid waste. The tonnage of residuals is greater than the tonnage of inputs, to the extent it includes oxygen from the air; may be either more or less than inputs, as withdrawals from or additions to stock are made; and either more or less, as imports add or exports subtract from the residuals. The law of conservation of matter says that nothing is ever destroyed; its form may be changed, but the material itself lingers on. One may affect the rate of new inputs into the process in various ways, or he may control the form of the residuals within limits, but he cannot ignore the volume of residuals.

This production-consumption-residual continuum means that preservation of environmental quality requires far more than efficient disposition of the "wastes" that happen to get produced. In particular, one cannot look at air pollution in isolation, nor at water pollution, nor at the problems of solid waste disposal only. These are simply different ways of moving the residuals away from our immediate vicinity. Smoke stack gasses may be scrubbed to reduce air pollution; what does one do with the ash--flush it down a river or bury it in the ground? Or garbage may be incinerated, with additions to air pollution. And so on, for a vast range of tradeoffs.

Instead of such a piecemeal approach, maintenance of environmental quality increasingly is going to demand a more comprehensive approach. It will be necessary to examine production methods, to see how total volume of residuals can be reduced; to examine use of goods, to provide more satisfactions and longer lives, hence less replacement; and to look at recycling, to use raw materials over and over. Moreover, the demands for recycling may vitally affect both the production process and the consumption use. The changes that must be made, as population grows and per capita consumption rises, may be slow in coming and difficult to bring about, and may demand quite basic and major changes in the whole production-consumption-residual cycle. And we economists are acutely aware of the fact that costs must be balanced against gains.

This type of approach must be applied to agriculture, no less than to industry. In the last quarter century, we have seen a great rise in development of specialized poultry production and of livestock fattening; scale economies have been very great and some large enterprises have emerged. But none of this has really faced the problem of the residuals it creates. Likewise, the same period

has seen a great rise in pesticides and other chemicals, which have helped greatly to reduce losses of agricultural commodities produced. But the long-run effects of these chemicals, especially on persons and species far removed from the scene of application, are just now beginning to get major attention. Fertilizer use has increased greatly in the same period, and has been one major factor underlying the very great increase in agricultural output; but the possible ill effects of such fertilizers are only now getting major attention. Those of us in agriculture, like those in every other projection, have been all too inclined to think of pollution as something someone else produced. We must be concerned that, in our efforts to reduce pollution, we do not cause more damage than the value we create.

But environment includes social and man-made relationships, as well as various aspects of Nature (however much Man may have affected the latter). Man is a social animal; relatively few people like to live alone or nearly so. The enormous rise in urbanism around the world of the past 100 years or so, and the rapid current rate of urbanism, are striking proofs that men like to be near other men, however much they may also dislike them. Many people decry the ills of the modern city, yet few actually depart from it for the remote country areas. The patterns of population change in the United States, discussed at the beginning, are dramatic proof that the small town and the country cannot hold people, in competition with the city.

The foregoing does not in the least mean that present cities are perfect, or even as good as they reasonably could be. Very great improvements in cities are possible, but a wholesale movement away from them does not seem to be a realistic answer to urban problems. Americans, and indeed all the world, are going to be more and more urban in the future; the practical line of action lies in making the cities better places in which to live.

We must face the possibility that, faced with a necessity to make hard choices, substantial numbers of people in this and in other countries will choose social arrangements which are to their liking, in preference to some purity of Nature which appeals to the environmentalist or conservationist. The slums of a city may be a disgracefully bad lot of housing, but they frequently have a social strength which makes their residents prefer them to some relocation in physically better housing. Surely we economists can appreciate the fact that people may value various goods or services differently than do specialists of various kinds. As economists, we may be able to understand and perhaps to measure the strength of these attitudes; as persons interested in the welfare of our fellow men, we may be able to devise ways in which the best of both natural and man-made environments can be attainable by large numbers of people.

Manipulation of Settlement Patterns

Is manipulation of settlement patterns a feasible way in which to increase the environmental quality of our lives? What might be our objectives in manipulation of settlement patterns? How might we go about doing it? Only a few suggestions can be given here, but perhaps they will serve to stimulate discussion.

As a nation, do we really wish to slow down or prevent the concentration of population in SMSAs? There is a lot of talk about "rural-urban balance;" support for it seems proportionate to the vagueness of the term. But many persons decry the kinds of large cities that are building up, or glorify the small towns and/or the rural life, or both. They would like to see some major change, usually unspecified, in the national distribution of population. I think that most of the people who talk this way have not counted the costs. My own intuition is that the costs will be very high, not only in monetary but in terms of controls that would have to be imposed. I realize that not everyone agrees with this position, but I have been much impressed with the costs Britain has incurred in trying (and at last succeeding) in stopping the population growth of London; and the British have not really succeeded very well in stopping the growth of the southeastern part of their country. One could pump so much money into any decadent small town or rural area, as to provide such superior housing, superior schools and other public services and subsidized employment and production, as to attain any rate of population growth; I have said that, if I could write checks on the federal Treasury without limit, I can make any town into a metropolis. Or one could impose controls on where new factories and other employment centers would be built or expanded (as the British have done) or where new houses could be built, and thus largely force people to live and work in specified locations. But the costs in each case would be high.

Are there possibilities for a modified settlement pattern in the huge non-SMSA territory, that would provide living conditions sufficiently attractive to hold the young people from such areas? It is clear to me, as I study the figures I have briefly presented and as I realize that most of the population loss is young people, so that larger future losses seem probable, that the long-run future of many SMSAs is pretty bleak if current trends are allowed to work themselves out "naturally." In the great heartland of the country, where population loss is so common and so persistent, I think some drastic restructuring of settlement patterns is called for. I think people might be grouped into much larger centers than they now are, that many or most farmers could live in town rather than on the land, that the pattern of local government and social services could be drastically modified, all to the end that the economic and social environment of these regions could be greatly improved. The costs would be high but not beyond reason; the alternative is slow decay. There is nothing inevitable or sacred about the present settlement pattern; it originated under a set of technological and other conditions which no longer exists; as a nation, we have propped it up with numerous

public actions. We could equally bring to bear a number of public actions to change it.

One growing problem of settlement pattern of special importance here in the Northeast is the rise of seasonal homes. More and more people in the United States have a permanent base in some SMSA, with one or more seasonal homes in some back country. They remind me of some of our caveman ancestors who had a home cave from which they foraged into the countryside, with secondary refuges at convenient locations within their hunting and harvesting territory. This pattern of major home and of seasonal secondary home is not without its problems to the occupant, but it also poses major problems to the people who live and make their living in the regions or areas where seasonal homes are most common. Employment booms during the busy season, to fall to very low levels during the off seasons.

As I look at the spectrum of settlement locations, and as I contemplate the fact that most future net growth in population will be located in suburbs, it seems to me one of the places where national attention could best be focused is on the suburbs. I think that suburbs could be made much more efficient, in the usual terms of costs and benefits; I think they could also be made better places to live, and open to a larger portion of the whole population. Many steps or measures would be involved in doing so, as I see it, but two should be of special interest to economists. One measure would be to make speculative holding of idle land more costly; low real estate taxes and federal income taxes which greatly favor land speculators are man-made institutions, and presumably could be changed--though one should not underestimate their entrenchment. Unless or until some pressure is brought on the owners of such land, sprawl with its attendant wasteful use of land and costly development procedures will continue. The other measure, or group of measures, would be to make new suburban settlers pay the full (marginal) costs their settlement imposed upon the general public. Today, most public services are priced on a postage rate basis; it costs no more for sewerage connection if one locates a subdivision a mile beyond the nearest present subdivision than if one located next to the latter; and similarly for other public services. Neither builder nor house buyer is under any economic pressure to develop suburbs in compact and consolidated fashion; we can blame only ourselves, not them, for an economic framework which encourages sprawled suburban growth.

Question may well be raised, is concern with settlement pattern a proper field for agricultural economists? We as a profession might stick with agricultural production and marketing; it seems to me we have largely decided to seek wider fields. If we seek to use the skills we have developed to deal with significant current problems, then settlement patterns and environmental problems are surely suitable fields for our energies.

Reaction

ALTERNATIVE LAND USE PATTERNS AND ENVIRONMENTAL QUALITY

Discussion of Marion Clawson's Paper

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Department of Agricultural Economics
University of Maryland

Dr. Clawson has discussed current and emerging land use patterns at the national, metropolitan, suburban and neighborhood levels. From his viewpoint, the dominant characteristic at the national level is population concentration in less than one-half of the country and declining population in the remainder.

At the metropolitan level, Dr. Clawson referred to the population decline within the central city which he points out has been going on for a long time. Land use patterns in suburbia is characterized by leap-frogging and scatteration with large areas of idle land, higher costs of providing public services with disassociation of costs and benefits, and economic discrimination.

He pointed out the existence of inefficient land use patterns at the neighborhood level resulting from the use of land for insulation purposes. Such uses of land preclude uses for other beneficial purposes.

According to the paper, declining environmental quality and/or pollution is primarily associated with "wastes" disposal. Though the waste disposal problem cannot be solved by reversing trends toward population concentration, time could be bought in this manner.

Reference is made in the paper to the exodus of people from rural areas and small towns to the cities. Yet, when asked to express their choice as to residential site, many people will say the country or small town.

Dr. Clawson raised questions concerning the possibility of manipulating settlement patterns in a way to raise environmental quality. He doubts that action required to reverse the trends toward population concentration, nationally, would have a favorable benefit-costs ratio. Further population growth in suburbia seems eminent. Land use patterns in these areas should receive immediate national attention. Land idleness and scatteration are resulting in inefficiencies and undesirable environmental conditions. Proposed measures to bring about changes in settlement patterns in suburbia include (1) action to increase the cost of holding idle land and (2) action which would require suburbanites to pay the full marginal costs which they impose on the general public.

Present settlement patterns lead to inefficiencies and declining environmental quality because land use patterns are determined by actions of individuals in pursuit of economic gain in a market system in which costs and benefits are not fully associated with those actions. This seems to be a case parallel to that in which all agricultural economists are well versed--individual interests do not coincide with the group or societal interest. Actions are taken by individuals on the basis that added returns (benefits) will be greater than added costs (sacrifices). However, the market for land is such that owners do not pay the full costs of their actions and in many cases do not receive full benefits from possible actions even though they bear the full costs.

Motivations and actions of the owners of undeveloped lands, the builders or developers, were discussed and contrasted with societal interests. Owners of undeveloped land scattered among and between suburban developments are holding the land for profit motives. Many are expecting land prices to rise but land holding may be a profitable venture for some even in the absence of continuations of recent price rises because of inflationary pressures, capital gains taxation policies, etc. In order to pursue these ventures, the speculator, as he is called, must maintain control over activities which take place on the surface of the earth. The speculator is supplying a service to the society or to the economy by balancing the quantity supplied with the quantity demanded for development sites among time periods. This is the service for which he is being paid. Whether or not he is underpaid or overpaid is another question. Actions of the speculator bring about more stability in land prices than would be the case otherwise. Compare present day land price changes with those which resulted from gold-rush and ghost-town days.

Think for a moment about the market system and the services of the land price speculator as compared with the market system and services of the wheat-price speculator.

We have a futures market operated separate from but related to the cash market for wheat. One can perform speculative activities (buy and sell) in the wheat market without exerting any physical influence over the wheat itself. Some people buy and sell wheat (really, futures contracts) without influencing the physical flow of wheat within the cash or spot market. Presumably, producers, processors and consumers of wheat benefit from actions of the speculator; otherwise, speculators would not find their actions profitable.

Why not create institutional arrangements which would enable the society to benefit from land price speculators without encumbering it with the disbenefits in the form of inefficiencies which apparently now flow therefrom? A system which would accomplish this has been proposed in Senate Bill 792, introduced

by Senator William J. Goodman, State Senator from Prince Georges County, in the 1971 Session of the Maryland Senate.[1] Section 9.03 of the Bill is quoted below:

> "9.03 Development Rights
>
> No later than January 1, 1975, the local legislative body shall have completed an inventory of all land use categories within each conservation district as established for the purposes of this subtitle, and after making a determination as to the total percentage of land within the conservation district that may be developed in each category, shall apportion the rights to residential and commercial development of the conservation district on the basis of the percentage of private land in the conservation district that such person holds title to as shown in the tax records. No person shall be issued a permit for development unless he possesses title to such land and the number of rights as required under this subsection except that all agricultural development and such private outdoor recreational development as approved by the Secretary of State Planning are exempt from the provisions of this subsection. The number of rights required for development of each category or subcategory of land use shall be determined by the local legislative body. For the purposes of this subtitle the rights to residential development and commercial development shall be deemed separate and distinct categories and shall be identified by their original metes and bounds and recorded as such in the land records. The rights to commercial and residential development of land within a conservation district may be sold or transferred."[2]

According to the provisions of this Bill, the legislative body of a conservation district (let us assume for the moment that a conservation district composes a region within a county, a county or multi-county region) would decide what proportion of the conservation district should be developed for residential purposes and what proportion should be devoted to commercial development. By implication the legislative body would decide what proportion should remain in other uses

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1/ Senate Bill 792, Maryland Senate, was introduced by Senator William J. Goodman, March 15, 1971 and referred to the Committee on Judicial Proceedings. Committee hearings were held on April, 1971 and it was referred for study to the Legislative Council.

2/ Ibid.

(agriculture, forestry, open space and public developments). The legislative body would make its decision with respect to permissible or desirable proportions of land to be developed for residential and commercial uses on the basis of information, analyses and recommendations of the local and State planning commissions. These proportions would be tied to a specific date 10 to 20 years in the future. Total development rights (for residential and commercial uses) within the conservation district would be apportioned among landholders within the district in the same ratio as their individual land holdings to the total land area of the district.

For purposes of illustration, assume that the legislative body (with the recommendation of the planning commission) decided that 50 percent of the land should be devoted to residential purposes and 20 percent to commercial purposes by 1991. Land holders would be issued residential development rights for 50 percent of their total acreage and commercial development rights for 20 percent. Development rights would represent privileges or opportunities, not duties or responsibilities. One landowner decides to sell his land to a developer to be developed for commercial purposes. However, assume that the development requires the development of a 100-acre tract and the owner has only this many acres. Development rights of this tract which were issued by the local government permit the development of only 20 acres for commercial purposes. The developer will not purchase the land to be developed unless he can construct a 100-acre development. Either the landowner or the developer could go to other landowners and offer to purchase 80 acres of commercial development rights and sell 50 acres of residential development rights. Unless the 80 acres of development rights were purchased from another owner, the tract could not be developed for commercial purposes. Development rights would be negotiable within the conservation district. Thus, it would be expected that a market in which development rights would be bought and sold would be established. Market prices for development rights would fluctuate according to demand and supply conditions just as in the case of any other good. Rather than speculate in land prices and tie up the usage of the earth's surface in the process, speculators could buy and sell development rights.

Zoning regulations now in existence would remain unchanged by the issuance of development rights. In order to be developed for residential or commercial use, the land would have to be in a district so zoned and the developer would have to own the requisite development rights.

Let us assume that a landowner with 100 acres of land has sold all his development rights. Unless, development rights were purchased from someone else, his land could not be developed. The land could be used for any purpose permitted by effective zoning regulations excluding residential and commercial

uses. The price of surface rights to land usage would thus be determined by its income-producing power in these uses and not on the expectation of higher valued uses in the future.

After development had occurred within the conservation district to the extent that development rights had been used up, (that is once the hypothetical district had been developed to the point where 20 percent was in commercial-industrial uses and 50 percent was in residential uses), the legislative body could add additional rights to development if they so desired. For example, they may decide that it would be socially desirable to increase commercial development by 20 percent of the remaining undeveloped area and residential uses to an additional 30 percent of the total area remaining undeveloped within the conservation district. These rights would be allocated to landholders of undeveloped land within the conservation district in the same proportion as their individual holdings were to the total area of undeveloped land remaining within the district.

Designation of development rights as described above would result in the development of two markets for land; there would be a market for surface rights with associated prices and a market for development rights with associated prices. Land price speculation as currently practiced results in individuals holding land for speculative purposes. Land held by speculators will not be sold unless the price is sufficiently high that the seller can make his expected profit. Speculators under the "development rights" plan would hold "development rights" while others held surface rights.

Zoning ordinances frequently have been looked on as restraining development. According to Dr. Clawson, to solve land use problems in many areas (his estimate was 30 percent of urbanized regions) we need some development-encouraging measures. Development rights would not necessarily encourage development. However, it would remove the land price speculator as a deterrent to development.

Planners and zoning officials now make one owner rich without influencing the wealth of another by the stroke of a pen. The use of "development rights" plan along the lines suggested would add another tool to enable the public to obtain the kind of land use pattern it desires by permitting free enterprise (limited free enterprise, if you wish) to take place within a defined framework.

Summary

ALTERNATIVE LAND USE PATTERNS AND ENVIRONMENTAL QUALITY

Chairman: Malcolm I. Bevins, University of Vermont
Speaker: Marion Clawson, Resources For the Future
Reactor: Sidney Ishee, University of Maryland

Ishee's report of the pending Maryland legislation for land use control stimulated a considerable amount of discussion. The issuance of negotiable development rights could remove some of the negative aspects of land speculation which exist under the existing system. There would be a shift from speculation in land per se to speculation in development rights. The market mechanism and a system for controlled speculation of development rights might serve to the benefit of society just as speculation in grains performs a useful function in the commodities market. It was further suggested that this concept might be expanded further so that some system of competitive bid might be employed in the zoning of land for specific purposes. This practice would result in a fee to be paid by those individuals who now receive an unearned increment as a result of zoning action.

Discussion shifted to controls which might be employed to force land sales by individuals who currently "hold out" for a higher market price to the detriment of the developer who is attempting to minimize total development costs. Without such controls, economies of scale which might be realized by the developer are syphoned off and a "scatteration cost" incurred. Dr. Clawson estimated that this "scatteration cost" in the U. S. today might approximate $150 per family.

One way of reducing "scatteration cost" would be through a truer realignment between assessed tax values and current market values. Discussion followed on the feasibility of the landowner himself establishing this value with a requirement that he sell his property if given an equivalent offer by a legitimate land development authority.

Discussion followed on land use trends in and around the larger metropolitan areas of the U. S. today. The manufacturer and the large retailer have moved out of the central city. An example of this is the movement of firms out of central Boston to the Route 128 Beltline surrounding the central city. Larger sites are available, single floor structures can be erected with improved access. The department store is following a similar pattern with a movement from central city to shopping plazas, again in close proximity to the Beltline surrounding the city.

The loss of the manufacturer and the department store has been offset to some degree by the growth of office building complexes in the centray city. Where

"face to face" contact between businessmen or officials is important or where central city banking and communications facilities are important to internal activities the central city still has much appeal. It was concluded that in the future, the central city will continue to lose certain elements but will still have a basic attraction for principal offices of large business organizations.

In a review of the opportunities for rural residents, it was agreed by the group that the rural poor deserve a better choice than one between a rural slum and an urban slum. It was suggested that government action might be in order to improve the amenities of living in a rural area to reduce the amount of out-migration. It was agreed that there must be a considerable improvement in educational, cultural, and medical services in rural areas if these areas are to hold current population or attract new community members.

It was felt by the group that in order to achieve realistically adequate services in nonmetropolitan areas, there must be a greater degree of population concentration. This might mean greater regionalization with a combination of facilities to serve several smaller communities. Economies of scale cannot be overlooked. Towns must consider consolidation either by actual movement of people or by community administrative activities.

The importance of identifying the true goals of the people was discussed. Social scientists need to do a better job of scientifically studying, analyzing, and classifying the goals of our society. Confidence was expressed that once these goals have been clearly defined, ways can be found to implement action to meet these goals.

The need for an educational job was identified if members of society are to have knowledge concerning alternatives. Lack of knowledge of alternative ways of life might lead to meaningless statements of goals and aspirations.

Reference was made to a recent quote by Marion Clawson--"My personal objective is to see that every individual has access to personal opportunity for a full and rich life--full and rich by his standards, but in knowledge of what the world has to offer today."

Caution was issued in the interpretation of goals. It was noted that opinion surveys have often shown that people would prefer to live in small towns in rural areas, but these same individuals continue to live in or near large urban complexes. Research is needed to determine whether or not there are specific barriers to such movement or whether true goals are being identified. In a closing statement, Dr. Clawson challenged the economist to play a more active role in the evaluation of alternative policies which might be employed to redirect land settlement patterns to the greater benefit of our total population. Institutional innovation must not be ruled out. The challenges are great but answers can be found.