THE ECONOMICS OF A PUBLIC LAND POLICY

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Public policy for public lands is quite properly a part of a national land use policy. A comprehensive land use policy has never existed, but recent events may be interpreted as suggesting that one is beginning to emerge. Concern with population deployment, use of privately owned lands, water quality, and air quality provide examples. Specific manifestation of this concern may be found in S. 632, and in S. 992, Ninety-second Congress, First Session. S. 632, introduced by Senator Jackson, seeks to amend the Water Resources Planning Act to provide for a national land use policy. S. 992, generally regarded as an administration bill, provides for grants to states to encourage and assist in the preparation and implementation of land use programs to protect areas of critical environmental concern and to control and direct growth of areas of more than local significance.

If a national land use policy were to develop, it would, of course, have to include special attention to public lands. The very existence of public lands creates a larger number of options in the development of public policy than would be the case if all land were in private ownership. The main reason for this is the demand and supply characteristics for the services that can be yielded by our public lands.

ECONOMIC CHARACTERISTICS OF PUBLIC LANDS

Federally owned land amounts to approximately 755 million acres or about one-third of the total land area of the United States. More than thirty government agencies, mainly within the Departments of Interior, Agriculture, and Defense, are involved in the management of these public lands. Ninety-five percent of all federally owned lands are located in the eleven Western states and Alaska. Federally owned land, as a percentage of total land area, varies from a low of 0.1 percent in such states as Iowa, Kansas, and New York, to more than 95 percent in Alaska. In my own state, Oregon, slightly more than half of the land is federally owned.

These federally owned lands are quite diverse whether measured

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on a physical, geographic, or economic scale. The existence of diversity adds flexibility in fashioning a comprehensive public land policy. Some of the most rapidly growing demands for the services of land appear capable of being satisfied, in part, by the public lands.

The existing ownership pattern was established largely during the nineteenth century. The conditions of supply and demand existing at that time obviously determined land values, and the best lands moved into private ownership with the federally owned lands constituting a residual. Since that time population growth, income growth, and technological and organizational change have combined to change demand and supply conditions for public lands.

The abundant land of the eighteenth and nineteenth centuries was an instrument for economic development. While the recreational and esthetic services of land were undoubtedly recognized and enjoyed by the farmer and rancher, the lumberman, and the miner, this enjoyment was supplementary to use of the land in production. With the passage of time, consumption services of land tended to become competitive with production services rather than supplementary. Land values then changed relatively in favor of those lands which have a comparative advantage in supplying consumption services.

Even so, low value uses still tend to dominate. This situation persists despite the fact that, in total, the enterprise is a huge one. The federal lands would qualify for a place among the 500 largest industrial concerns, but this is because the land area is so vast and not because of high per unit value. Nearly two-thirds of the land is being administered for grazing. About 100 million acres are used for timber production, and mineral extraction also constitutes an important use of public land. With the exception of mineral extraction, these production uses on a per acre basis would not justify high land values in the market place. Of course, the contribution of these lands in the aggregate production of livestock, timber, and minerals, must be recognized, and they obviously have value to local communities in this context. In addition, even though the land is in public ownership, those using it for production are almost entirely private firms. The short- and long-run economic health of these private firms depends much on the policies affecting these lands.

With the growth of direct public use of public lands for consumption purposes conflicts are inevitable. These consumption uses include mass recreation such as sightseeing and picknicking, hunting, fishing, camping, vacation homesites, environmental preserves, and research laboratories. It is this conflict between producer and con-

sumer that now occupies the center of the stage. Arguments abound concerning whether public lands should be used for livestock production or for big game; controversy currently rages over the economic, esthetic, and ecological merits of clear cutting of timber.

Economic change has affected the role of land in economic affairs. Schultz and others have pointed out that the growth of capital and human knowledge has reduced the role of land in agricultural production. What has not been so generally recognized, however, is that these changes have affected the demand and supply of land services that enter directly into consumption in a different way than those that enter into production. For example, the automobile, by minimizing the cost of distance, has obviously increased the supply of outdoor recreation supplied by land or natural resources. But in the same context it has also greatly increased the demand for these services.

The common practice in most discussions of public lands is to lump the consumptive uses of public lands into the category of outdoor recreation. However, the concept of space deserves special attention and cannot be treated adequately as a part of outdoor recreation. We really understand very little about the utility associated with different degrees of isolation or its opposite, crowding. It is apparent that further crowding in some places such as the very large cities is undesirable. Thus, one service public lands are potentially capable of providing is relief from crowding. The Public Land Law Review Commission recognized this and in its report devoted one chapter to occupancy uses. In this chapter the commission discussed vacation homesites, urban expansion, and new cities. This can be explored better under the next heading.

POLICY CHOICES IN PUBLIC LAND MANAGEMENT

The tremendous open spaces associated with public lands, and the substantial crowding which exists in the cities, suggests that public lands could provide relief from congestion and crowding. Yet, quite difficult obstacles stand in the way of such an adjustment.

There are obviously complex forces influencing the location of people. Until these forces are understood and can be manipulated it makes little sense to talk about using public lands as a tool for population deployment. One approach to this problem is suggested by the question, "What would make the traditionally low valued public lands more attractive to people if they could be settled or developed for that purpose?" In answering such a question, it is well to keep in mind that much privately owned land is also sparsely

settled. The inhabitants of the intermountain West and the Great Plains have long known that social costs are associated also with sparse population. In fact, a few years ago some agricultural economists and others were making statements that would almost lead one to believe nothing really good was likely to be found in other than very large metropolitan areas.

Reference was made earlier to the conflicts between "producer" and "consumer" groups in the use of the federally owned lands. Even if we would move much more in the direction of "consumer" uses, which would tend to be more people intensive, it is not clear that people would redistribute themselves more evenly over the landscape. Consumer uses of public lands are related to recreation or part-time residences. Public lands do not appear capable of generating the kind of economic activity necessary to attract large numbers of people without massive outside investment or specific public policy.

It is apparent that the location of people and the location of economic activity are becoming less interdependent. Early retirement ages, increased leisure time, and improved communication and transportation are factors working toward greater independence. It might be possible to take advantage of these trends by making the more sparsely populated areas more attractive as retirement areas and part-time residences. Yet in view of the magnitude of the problem, the major areas for public policy in population deployment appear more likely to be in the urban areas themselves and in the areas of intermediate population. What will improve living conditions in the urban areas but not increase population density? What can be done to revitalize and encourage the growth of cities of intermediate size that would benefit from certain types of growth? What can be done to utilize better the land in private ownership which is being fragmented and made esthetically unappealing by uncoordinated development?

The concept of multiple use has been a long-time goal in public land management. The Forest Service, in particular, has advanced this concept in a practical way and has pointed with pride to some of its programs providing for multiple use. The Public Land Law Review Commission, however, embraced the concept of "dominant use." There is considerable debate among qualified people about just what this concept really means. The commission's recommendation on this point reads as follows:

> Statutory goals and objectives should be established as guidelines for land use planning under the general principle that within a specific unit, consideration should be given to all possible uses and the maximum number of compatible uses permitted. This should be subject to the qualification that where a unit, within an area managed for

> many uses, can contribute maximum benefit through one particular use, that use should be recognized as the dominant use, and the land should be managed to avoid interference with fulfillment of such dominant use.

This is not the place to develop all of the technical and policy considerations involved. The economist, given some flexibility, can make either concept fit the norm of "economic optimum." Yet the valuation inherent in such terms as "maximum benefit" remains implicit. In fact, a rather fundamental inconsistency seems to run throughout the report. Greater reliance on user fees and market forces in the management of public lands is advocated at numerous points in the report. Yet a fundamental distrust of market forces with respect to the ownership of land seems to be reflected in the following recommendation:

> The policy of large-scale disposal of public lands reflected by the majority of statutes in force today be revised and that future disposal should be only of those lands that will achieve maximum benefit for the general public in non-federal ownership, while retaining in federal ownership those whose values must be preserved so that they may be used and enjoyed by all Americans.

This recommendation seems to imply that some uses of public lands can be met best if some land, probably a large part, remains in public ownership. In the remaining remarks the assumption is made that this will be the case. The question then becomes one of the policy guidelines that should be used in the allocation of public lands among uses and users.

At the extremes, answers are not too difficult. Those who argue that Yellowstone or Crater Lake should be used primarily for timber or grazing purposes are not taken seriously even though there are those who argue that private ownership might be used for management of these areas as recreational enterprises. Yet there are many difficult controversies between these extreme situations. Some of these issues are being illuminated by economic studies which determine the economic direct and indirect value, as measured by current economic conditions, of alternative uses. Such studies may narrow, but will never eliminate, the controversy. Equity considerations are obviously involved; numerous studies have shown that grazing fees are less than the value of the marginal product of the grazing right, but because this difference has been capitalized into private land values, pricing according to value of the marginal product would involve a substantial income transfer. Further, there are many who will question whether studies of economic values can adequately encompass, measure, and

weigh the social value associated with all of the potential uses of publicly owned lands.

While it is anticipated the conflcts between "producer" and "consumer" groups will occupy the center of the stage for some time to come, this may tend to direct attention away from conflicts which are beginning to surface and which appear to be of greater long-run significance. Conflicts will inevitably develop within the "consumer" groups. The negative environmental impact of intensive overnight camping may be considerably greater for certain areas than extensive grazing or selective logging. Preservation of areas for research may be as incompatible with certain types of recreational uses as would certain types of "development."

The fragile nature of much of our supply of public lands is becoming increasingly apparent, given the impact of present technology and life styles. The actual and potential deterioration of air quality in the Southwest and in many interior valleys of the West provide an example of this point. Those characteristics of our public lands, such as uneven topography, high altitudes, and arid climates, which result in low value for "producer" purposes, may provide spectacular scenery and an invigorating climate. Yet these same characteristics may make it difficult for these lands to sustain large numbers of people, given present technology and life styles.

Thus, the essence of a policy for publicly owned land begins to emerge. This public enterprise needs to be managed to serve the huge private enterprise of the nation. In this context, service is not necessarily defined as maximizing profit for those currently fully engaged in the enterprise system. Rather service is defined to include providing compensation for the performance of the enterprise economy and serving as an adjustment mechanism or buffer in making the enterprise system better serve our needs.

If the problem is viewed in this way, the information needed for public land management must usually come from studying both the private sector as well as the characteristics and traditional uses of public lands. The need for grazing cannot be divorced from technological change that can be applied on privately owned land in the production of livestock. Timber production on publicly owned land cannot be understood apart from considerations that influence wood substitutes. Outdoor recreation must be studied in the context of the use of leisure time generally. The attribute of space of public lands must be studied in the light of crowding in areas that are predominantly in private ownership. If we follow such a policy, my hypothesis is that we need to move more rapidly toward the use of

public lands for consumption purposes with compensation to those who are made worse off. Such a move should coincide with the development of principles of choice for use in allocation among the consumption uses.

In principle, of course, such concepts are as old as the nation. From the outset public lands were used to accomplish national objectives, and government programs for natural resource development have always been used for such purposes. The Homestead and Reclamation Acts provide examples. Yet what we are now trying to accomplish is not yet specified so precisely and is a response to more complex social developments.

Our public lands have certain characteristics which appear to make them well suited for satisfying some of these needs. Yet the necessary adjustment of use will require reallocation of resources, income, and wealth. There are those who favor better integration of the public and private sector by transferring some of the public lands to private ownership. Others would rely more heavily on the market to price and allocate the services from these lands which would remain in public ownership.

On the other hand, a case can be made for moving in the opposite direction and bringing even more land into public ownership. Land now in private ownership which is producing goods and services of low economic value may be capable of producing more socially valuable services under public ownership if managed for that purpose. There are obvious short-run costs to such adjustments, but the long-run gains in terms of providing flexibility and better serving social need warrant careful consideration.