



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

# Economic Efficiency vs. Distributive Equity: the "Sagebrush Rebellion"

Frederick W. Obermiller

The purpose of this paper is to interpret, from the viewpoint of an economist, some of the causes of the 'Sagebrush Rebellion,' a contemporary land reform movement directed toward the Bureau of Land Management and its control of the public domain. Distributive equity concerns on the part of 'Sagebrush Rebellion' supporters are identified, as are the contributions of neoclassical welfare theory to the debate. Reflections of those social and theoretical concerns in Federal legislation and agency policy and regulations are explored.

The purpose of this paper is to provide an economic interpretation of some of the causes of the "Sagebrush Rebellion," a contemporary land reform movement directed toward the Federal government and its control of the public domain. The rebellion is focused, primarily, on the Bureau of Land Management (BLM) and its administration of public rangeland resources. However, the land reform movement has much broader implications for levels of government, agencies of government, and groups interested in the use of public land and water resources.

---

Frederick W. Obermiller is an Associate Professor and Extension Resource Economist in the Department of Agricultural and Resource Economics at Oregon State University. He is indebted to four graduate students — David K. Lambert, Gerrit C. VanKooten, Linda M. Eppley, and Kevin J. Boyle — for their support in acquiring and analyzing many of the references cited here. The thoughtful reviews and comments on earlier drafts of the paper provided by Professors Joe B. Stevens, John A. "Jack" Edwards, and Jean B. Wyckoff are gratefully acknowledged, as are suggestions provided by the Editor of the *Journal* and two anonymous reviewers. An earlier version of this paper, "Distributive Equity: The Missing Ingredient in Federal Land Use Planning?" was presented at the 15th Annual Pacific Northwest Regional Economic Conference, Boise, Idaho, May 1, 1981.

Oregon Agricultural Experiment Station Technical Paper No. 6250, Oregon State University, Corvallis, February 1982.

The primary thesis advanced here is that distributive equity, or more precisely the perceived lack thereof in the minds of traditional users of public land resources, explains much of the current concern with federal land use planning processes and decisions. It is *not* argued that equity considerations *should be* of paramount importance in the public land use decision-making process; nor is it alleged that decision-makers at any level are insensitive to the real or imagined consequences of resource allocations on traditional users. Rather, it is maintained that the institutional framework within which federal land use decisions are made and implemented has changed. The effect of that change is to limit both lay participants and public servants who ultimately must make and implement decisions to a set of criteria which slight and sometimes exclude relevant distributive issues. Arguments which would dismiss equity implications as irrelevant decision variables in public land use planning simply add fuel to the "Sagebrush Rebellion."

The paper consists of four parts. In the introductory section, distributive equity versus economic efficiency are identified as underlying concerns expressed by supporters of the "Sagebrush Rebellion." The debate among economists concerning the relationship between economic efficiency and distributive equity is summarized, and distribu-

tional issues relevant to the analysis of the economic dimensions of the "Sagebrush Rebellion" are noted, in the second section. The third part of the paper summarizes the body of Federal legislation, policy, and regulations which have served as proximal causes of the land reform movement; and the economic implications of that legislation are highlighted. The concluding section deals with recent attempts by the Bureau of Land Management to resurrect distributive equity decision criteria in its land use planning and management processes.

### **An Economic Interpretation of the Sagebrush Rebellion**

In essence, the "Sagebrush Rebellion" is a challenge to federal control over the public domain in the western United States. "What is needed is an entirely new foundation and framework for the utilization and management of the public domain lands" [League for the Advancement of States' Equal Rights, p. 515]. At one extreme, proponents would divest the federal government of public lands, releasing the public land resources of the West to the states and/or to private ownership. Not all supporters of the "Sagebrush Rebellion" favor divestiture, however. Many advocates would be content with a change in management philosophy and priorities: a change which would "...demonstrate an ability to deal with public land issues in a fair and equitable way" [Beef, p. 79].

Support for the "Sagebrush Rebellion" is not confined to the rangeland livestock industry. Other supporters emphasize different resource uses, notably mining and timber harvesting, but common concerns are clear. The federal government is perceived to have failed to invest sufficiently in the public domain; to have allowed the productivity of public land resources to diminish through improper management; and to have neglected to consider the opportunity costs to traditional users of land use decisions designed to preserve or enhance environmental quality.

To argue the validity of these charges serves no useful purpose. From the perspec-

tive of an economist, there are two central themes in these concerns: (1) economic equity, more specifically, the lack of distributive equity in the interregional and intersectoral senses vis-a-vis national economic efficiency and environmental quality as decision criteria in the public land use decision-making process;<sup>1</sup> and (2) the inadequacy of national efficiency criteria as guidelines for management of and investment in public land and water resources.

### **The Economic Debate on Efficiency and Distributive Equity**

Even among economists there is considerable debate over the appropriateness of efficiency and equity criteria applied to public investments. In 1973 Haveman argued that government agencies misuse benefit-cost analysis in project evaluation. Reflecting the neoclassical emphasis on national efficiency criteria in resource development decisions he stated: "Even more discouraging is the failure of inappropriate efficiency concepts — secondary and regional benefits... — to be cast aside in recent efforts to reform evaluation standards" [Haveman, p. 876].

Within a few years these "inappropriate efficiency concepts" had, indeed, been cast aside. As the lead agency for policy formulation dealing with the economics of project evaluation, the U.S. Water Resources Council in 1979 dropped regional economic development from its earlier national objectives and accounts as a relevant decision criterion; i.e., secondary and/or regional benefits and costs no longer were to be evaluated [*Federal*

<sup>1</sup>As used here, efficiency refers to the relationship between social benefits and social costs without reference to the incidence of those values. Equity refers to welfare experienced by individuals or groups of individuals, over space and time. Distributive equity is the system of stratification, or classification, applied to the streams of social costs and social benefits. By implication, the monetary values of social costs and social benefits (given the standard neoclassical assumptions), when evaluated on the basis of the incidence of those values, approximate the distributions of welfare losses and gains.

*Register*, September 10, 1973, and May 24, 1979]. The direction provided by the Water Resources Council is reflected in the project evaluation guidelines and procedures currently employed by the Bureau and most other public land management agencies.

Meanwhile, others were arguing that "without . . . a better measure of the distributional impacts (of public land allocations), the application of efficiency criteria may not give unambiguous results concerning changes in welfare" [Wyckoff, pp. 18-19]. Of special concern to Wyckoff was the limited information being used in the decision-making process — particularly information related to the distribution of costs and benefits among population groups and geographic areas.

### *The Theoretical Basis for the Efficiency-Equity Dichotomy*

The academic debate touched upon here is of ancient vintage. Its basic inconclusiveness leads to decisions, lamented by both Have-man and Wyckoff, made in the political arena and largely uninfluenced by economists or economic analysis. That inconclusiveness is due to the interdependence between economic efficiency and economic equity, since both are rooted in interpersonal utility comparisons. To treat the two criteria as distinctly separate is, in itself, a value judgment. If economists are to contribute to the public land decision-making process, and if they are to do so objectively, both efficiency and equity implications of alternative decisions are legitimate ends of research and information delivery. To do less, i.e., to confine the scope of economic analysis to either efficiency or equity, is to provide "... conclusions (which) can possess no validity outside the circle in which these values find acceptance" [Hicks, p. 696].

Weisbrod views the failure of economists and economics to provide useful guidance on the illusory dichotomy as a matter of simple expediency, and he implies that economists sometimes forget the artificial nature of their separation [Weisbrod, p. 180]. The ar-

tifice is reflected in four assumptions which have been used to justify the omission of equity from economic decision criteria in project evaluation.

First, all individuals are assumed to have equal marginal utilities of income, meaning that the welfare of all individuals is influenced in a consistent manner by the allocative decision. A second, and closely related, assumption is that the weights individuals attach to marginal changes in benefits or costs are all equal, "... regardless of the people who received that benefit or who bore that cost" [Weisbrod, p. 182]. These two assumptions mean that all members of society value income gains or losses attributable to resource reallocations equally. Interpersonal utility comparisons with respect to money income are made possible, but are not necessary, since enhanced allocative efficiency necessarily implies increased welfare. Among the several problems with these assumptions is the possibility of interdependence between income and nonmonetary determinants of utility, e.g., access to "free" public goods. Individuals who by virtue of place of residence enjoy greater degrees of access to public land and water resources may well value income changes consequent to public resource reallocations differently from individuals having more limited access to the same resources. As Weisbrod put it, the assumptions cannot bear scrutiny, and economists have made them simply for convenience.

The third assumption used to separate equity from efficiency considerations is that any action affecting resource allocations is so small in the national context that the net distribution of income among members of society will be unaffected by its implementation. Hence, the social effects of income redistribution may be disregarded. The problem with this assumption is that public land and water resources are relatively fixed in location. Actions which increase the availability of resources for commodity uses generate benefits in the form of income gains which tend to be captured locally, and vica

versa. Public land and water management policies can have significant impacts on income distributions within and among subsets of society, i.e., public land dependent communities [Obermiller, 1980].

It is partly in recognition of the redistributive consequences of resource reallocations that the fourth assumption is made: Any unfavorable distributional effects from a project may be eliminated by a compensating redistributional program, but if the efficiency effects of the initial project are positive, there is no need for actual compensation. This fourth argument, popularly known as the "Kaldor-Hicks Compensation Principle," has been invoked to allow economists to separate the production effects of economic policy from their distributional consequences. Numerous writers have criticized the principle, but the empirical validity of the Kaldor-Hicks test remains in doubt unless "costless" compensation does in fact occur. In reality, an appropriate test of the hypothesis may be impossible because existing states of market competition and resource allocation are inconsistent with those (perfect competition and full employment) assumed.

#### *Resurrecting Distributive Equity as a Relevant Decision Criterion*

If these four assumptions are, in fact, theoretically invalid or inconsistent with reality, then equity criteria may well be relevant to the public land allocative decision. The distributional effects of such decisions may be no more nor less important considerations than national income gains or losses. Moreover, the efficacy of the efficiency criteria themselves can be seriously questioned.<sup>2</sup>

<sup>2</sup>If individuals have different marginal utilities of income, and also weight marginal changes in benefits and costs differently, a utilitarian social welfare function cannot be constructed, and interpersonal utility comparisons are not possible. Hence, the pareto optimum efficiency frontier is not measurable, and it is impossible to conclude whether resource allocations generating total social benefits in excess of total social costs (i.e., a

These observations suggest that existing efficiency and equity criteria for public land use planning are inadequate because the underlying theoretical construct is incomplete. Pending the emergence of more general theory and appropriate decision criteria, economists can make a positive contribution to the decision-making process by recognizing that distributive equity concerns may have validity, and by providing decision-makers and society as a whole with sound information on the distributional consequences of public land resource allocations [Haveman and Weisbrod].

What might the relevant distributional consequences be? Clearly, "Sagebrush Rebellion" supporters and other traditional public land dependent interests feel that the *interpersonal* costs and benefits of land management and use allocations are important. Many of their arguments are couched in terms of the selective impact of federal land policies on commodity groups, or industries, connoting the relevance of *intersectoral* impacts. The fact that 14 western states (Nevada, Oregon, Washington, Idaho, Montana, California, New Mexico, North Dakota, South Dakota, Arizona, Alaska, Utah, Wyoming, Colorado) have recently considered and in some cases actually passed legislation which would place within the state responsibilities for management of the public domain — responsibilities now vested in the federal government — is an obvious expression of the relevance of *interregional* distributions of costs and benefits. The creation and rapid rise in influence of the Western Governors Policy Office (WESTPO), which seeks to ensure that western interests are safeguarded and amply rewarded as their natural resources are developed in accordance with national objectives, further illustrates the merit in considering interregional impacts. Finally, the *intertemporal* dimension of distributive equity is applicable. It is

benefit-cost ratio greater than one) move society toward, or away from, a more efficient pattern of resource allocation.

not only the long-run consequences, "... a combination of balanced and diverse uses that takes into account the long-term needs of future generations for renewable and non-renewable resources..." [Federal Land Policy and Management Act, Section 103(c)], which are of concern. Many traditional users find short-run reductions in resource availabilities, even though long-run supply may be thereby enhanced, to be of significance as well. As one rancher put it in commenting on a proposed reduction in his grazing permit: "If you cut me 34 percent (as a cost-effective approach to enhancing long-term range conditions), I would have nothing and would have a net loss of about \$1,500 last year. That's the economic impact of myself" [Bureau of Land Management, 1980(b), p. C-98]. To translate, short-term private costs may not be offset by long-term public benefits. Or alternatively, the promise of increased rangeland forage supplies 15 years hence may not satisfy the present permittee if he must go out of business in the interim.

### **The Contribution of Federal Legislation to the Sagebrush Rebellion**

The "Sagebrush Rebellion" is neither novel nor unprecedented [Matthews]. Westerners have for years "rebelled" against Federal (often paraphrased as eastern interests) control over the land and water resources of the Interior West, their development and disposition. Examples include the populist-led agrarian revolt of the 1890s, the western-backed Stock-Raising Homestead Act of 1916, and to some extent even the furor over overstocking and exploitation of the public rangelands leading to the Taylor Grazing Act of 1934.

Unrestricted use of public rangelands, particularly overgrazing by nomadic bands of sheep whose owners had little or no base property, and hence minimal vested interest in maintaining the land's productivity, led to severe rangeland deterioration early in the twentieth century. Between 1899 and 1934 bills were introduced in each session of Con-

gress to limit and control use by domestic livestock of the public rangelands. During the late 1800s a series of laws were passed giving what was to become the Forest Service the authority to regulate grazing in the Forest Reserves (National Forests); and under the leadership of Gifford Pinchot such a regulatory system was developed and implemented. Only ranchers who owned or controlled base property in or near the public forests, and even then only those who could demonstrate dependency on public land forage supplies, were permitted to use those resources. Further, permittees were charged a grazing fee. Ultimately, nomadic sheep operations were forced off the Forest Reserves, but they and others continued to enjoy unlimited access to the open public rangelands [Malin; Matthews].

### *Intent, Content, and Implications of the Taylor Grazing Act*

Their access ceased with passage of the Taylor Grazing Act in 1934, a law patterned after the statutes and policies of the Forest Service. While hotly debated, ultimate passage of such legislation was inevitable: "To stop injury to the public grazing lands by preventing overgrazing and soil deterioration, to provide for their orderly use, improvement, and development, to stabilize the livestock industry dependent on the public range." The Act placed in the Secretary of the Interior full responsibility for regulation of public rangelands *pending their final disposal*. Grazing districts and grazing fees were authorized. As with the Forest Service, "Preference shall be given in the issuance of grazing permits to those within or near a district who are landowners engaged in the livestock business" [Taylor Grazing Act, Section 3].

The Taylor Grazing Act was clearly oriented toward production of forage for use by public land dependent ranchers. Range improvements were authorized. Improvements were to be financed from grazing fees, with 50 percent of the fees paid by permittees within a grazing district to be remitted to the

state within which the district was located "...to be expended as the State legislature may prescribe for the benefit of the county or counties in which the grazing district is situated" [Taylor Grazing Act, Sections 2 and 3].

The wording of the Taylor Grazing Act suggests that Congress was concerned with both economic efficiency (especially but not exclusively in the regional context) and distributive equity (in the intersectoral and interregional sense). Interpersonal equity considerations were also implied. Not only were landowners with proximal base property to be preferred permittees: The Act gave preference to owners of contiguous lands in the purchase of public rangelands offered for sale; directed that prior occupants who had made range improvements would be reimbursed for their expenses by subsequent permittees; and authorized the Secretary to decrease or remit fees if forage supplies were reduced during a grazing season due to natural causes.

Operating under the auspices of the Taylor Grazing Act the Grazing Service, and since 1946 the Bureau of Land Management, adopted a largely custodial role toward public land management. "For at least 30 years, one of the most important clients in the total BLM bureaucratic machine was strictly local — by law and practice the national interest was *defined* to be the local interest" [Matthews, p. 28]. Grazing cuts to dependent ranchers were avoided; and the public rangelands were managed so as to stabilize and improve the economic welfare of dependent communities.

Judicial interpretation of the Taylor Grazing Act and, consequently, of the legislated role of the Federal government in the administration of the public rangelands of the Interior West, further emphasized stabilization of the rangeland livestock industry and dependent communities as a management objective. In case after case, the purpose of the Act was interpreted to "...provide for (the) most beneficial use possible of (the) public range in (the) interest of grazers and (the)

public at large, to define grazing rights and to protect those *rights* by regulation against interference."<sup>3</sup> It can and probably should be argued that from 1934 through the mid-1960s, equity considerations in public rangeland management and development worked to the advantage of local interests and traditional users.

### *Precursor to Change: Activities of the Public Land Law Review Commission*

As the body of laws and regulations governing the administration of federal lands grew, they also became more complex and internally inconsistent. In recognition of that problem, and perhaps due also to the emerging social concerns for the environment and for the multiple uses of the public domain, Congress established the Public Land Law Review Commission in 1964. The general charge to the Commission was to review existing public land laws and make recommendations concerning any necessary revisions.

The hearings and studies undertaken by the Commission were broad in scope, both geographically and in subject matter. Following lengthy public hearings, the Commission's findings and recommendations for public land management were presented in 1970 [Public Land Law Review Commission]. Many of its recommendations related to future management and use of public rangelands; and of these several referred to economic efficiency and/or distributive equity as relevant decision criteria.

The relevance of efficiency criteria generally surfaced in the recommendations that: (1) use of public rangelands be regulated in such a way that deterioration of the resource base be prevented; (2) users of public rangeland resources be assessed a fair market value

<sup>3</sup>Red Canyon Sheep Co. vs Ickes, 1938, 98 F. 2d 308, 69 App. D.C. 27; see also Chournos vs U.S., C.A. Utah 1951, 193 F 2nd, *certiori denied*, 72 S. Ct. 1074, 343 U.S. 977, 96 L Ed. 1369; Hatahley vs U.S., Utah 1956, 76 S. Ct. 745, 351 U.S. 173, 100 L. Ed. 1065.

in exchange for their use privilege; and (3) federal decision-makers design rangeland management policies to attain "... maximum economic efficiency in the production and use of forage from the public lands" [Public Land Law Review Commission, Recommendation 37]. As has been shown elsewhere, virtually all of the Commission's recommendations for economic efficiency as a relevant public land management decision criteria subsequently were incorporated in federal legislation [Carver].

However, the Commission also concluded that national efficiency criteria should not be the sole economic consideration in federal land use planning. Regional economic growth was seen as a proper objective in public land forage policy; and it was suggested that *regional* economic efficiency as a decision criteria would promote, or be consistent with, interregional distributive equity as a public land management objective [Public Land Law Review Commission, p. 106]. Concern for interpersonal equity was implied in Recommendation 43 which would have afforded public land dependent ranchers some measure of protection for their property rights by controlling access to and use of public rangelands so as to avoid unreasonable interference with authorized livestock use. Intersectoral equity considerations were suggested in Recommendation 42, which found that some lands were chiefly suited to livestock production, and that in these areas such use should be considered dominant.

Not all of these recommendations were adopted by Congress, however. Subsequent legislation did retain the recommended efficiency criteria, although not in the suggested regional context. The same legislation also adopted the recommendation that all public lands be retained in Federal ownership. However, recommendations for interregional, intersectoral, or interpersonal distributive equity as relevant criteria in public rangeland management were not retained; nor was subsequent legislation to recognize the principle of dominant use.<sup>4</sup>

### *Catalyst: The Federal Land Policy and Management Act*

With the passage of the Federal Land Policy and Management Act (FLPMA) in 1976, and its counterpart for the Forest Service — the National Forest Management Act, an era officially ended. Public land use policy changed dramatically, and perhaps not coincidentally, some traditional public land users began to express their resentment.<sup>5</sup> Due less perhaps to the substance of the legislation than to its radical departure from the decrees of the Taylor Grazing Act, a seed of the "Sagebrush Rebellion" was sown. National economic efficiency and nontraditional uses of public rangeland resources emasculated regional economic growth and historically dominant uses as public land management objectives.

Policy Directives and Their Equity Implications. The Federal Land Policy and Management Act's Declaration of Policy says more than that the public domain will remain public, managed under multiple use principles. Authorizing the Bureau of Land Management as a full-fledged federal land management agency with broad regulatory and enforcement powers, the policy directives place national objectives and environmental protection in positions of primacy. The first directive retains public lands in Federal ownership. The eighth directive suggests that land use goals and objectives include preservation of environmental qualities and cultural

<sup>4</sup>Representative Wayne Aspinall (Colorado) introduced a bill in the 93rd Congress which would have incorporated all of the Public Land Law Review Commission's recommendations bearing on efficiency and equity criteria as referenced above. The bill was strongly opposed by certain interest groups and was not passed. Especially odious to these groups was the concept that certain lands may have a "highest and best use" [Muys].

<sup>5</sup>The forest products industry apparently was more supportive of the National Forest Management Act than was the rangeland livestock industry supportive of the Federal Land Policy and Management Act [LeMaster and Popovich].



resources, lands in their natural state (wilderness areas), fish and wildlife habitat, domestic livestock habitat, outdoor recreation opportunities, and human occupancy and use — in that order. The ninth directive implies that subsidization of traditional uses and users must end. The eleventh directive provides for protection of areas of “critical environmental concern.” Not until the twelfth objective are commodity uses of public rangeland resources explicitly recognized, and even then only consistent with the “Nation’s need.” The final directive does refer to a form of distributive equity, but only as it relates to ‘in lieu of taxes’ payments to state and local governments [Federal Land Policy and Management Act, Section 102].

Elsewhere in the Act indirect reference is made to intertemporal equity. Title II directs that, in future federal land use planning, the Secretary shall “weigh long-term benefits to the public against short-term benefits.” A hint of equity of a different sort is implied in the statement that allotment management plans shall be “. . . prepared in consultation with the lessees or permittees involved. . . which. . . prescribe the manner in, and extent to, which livestock operations will be conducted in order to meet the multiple-use, sustained-yield, economic and other needs and objectives as *determined for the land by the Secretary*” [Federal Land Policy and Management Act, Section 103(K)(1)].

Quite clearly, FLPMA changed the status of traditional rangeland users and local communities as interpreted by the BLM when that agency was operating under the auspices of the Taylor Grazing Act. Nowhere in FLPMA is there evidence that local interests are of any special significance; indeed, precisely the opposite is true (i.e., local interests are implicitly assumed to be identical with the national interest). Hence, the residents of public land dependent communities could be expected to feel that the new law, and Bureau actions consistent therewith, were inequitable in the *interregional* sense. FLPMA also formalizes the shift from the production-orientation of public rangeland

management under the Taylor Grazing Act to preservation and conservation of rangeland resources for the benefit of future users and/or generations. An implied consequence was reduction in licensed grazing of domestic livestock, leading traditional users to question the *intertemporal* equity of the Congressional initiative. By awarding equal priority in management objectives to uses of public rangeland resources which historically were not dominant, traditional commodity interests such as the rangeland livestock industry were led to question the *intersectoral* equity of the new Act. Finally, by acknowledging that the public lands were to be managed and used for the benefit of all Americans, those who traditionally had depended on public rangelands for their economic livelihood were led to attack the *interpersonal* equity of the law.

Coping with Expanded Bureau of Land Management Responsibilities. In a very real sense, FLPMA was the Bureau of Land Management’s “Organic Act,” giving that agency a full range of executive powers, duties, and functions, as well as consistent appropriation authorization. Only now was the Bureau in a position to truly manage the public domain in pursuit of national goals and objectives.

With those duties came the need for the BLM to aggressively implement other laws bearing on the management and use of public lands. Several of these related laws, enacted during the period of growing social consciousness and environmental concern of the 1960s and early 1970s, provided for special uses or protection of the public domain and its resources. Examples include the Wilderness Act of 1964, Wild and Scenic Rivers Act of 1968, Wild Horses and Burros Protection Act of 1971, and the Threatened and Endangered Species Act of 1973. Written into the language of FLPMA were provisions insuring compliance with these pieces of legislation (see especially Sections 102(8), 103(a) and (c), 404, and 603).

Of more significance was the need for the Bureau of Land Management to abide, in all

of its planning and project evaluation processes, by the provisions of the National Environmental Policy Act of 1969 (NEPA). Section 102 of NEPA required all federal agencies (or state agencies with federal funding) which undertake actions affecting the quality of the human environment to prepare statements documenting associated environmental impacts.

However, the Council on Environmental Quality did not issue regulations for the implementation of NEPA until 1978. In the interim each federal agency was to develop and implement its own set of guidelines. Prior to 1976, the Bureau was at a disadvantage, relative to other agencies, in its efforts to implement the NEPA process. Those efforts were judged to be insufficient when, in 1974 and 1975, the Natural Resources Defense Council filed and won two lawsuits against the BLM, one directed toward rangeland, and the second toward forestland planning [LaFollette]. Since that time the Bureau has attempted to comply with the letter of the law, under the watchful eye of the courts, by preparing site-specific environmental impact statements.

Not until August 1979 were the procedural guidelines for present Bureau of Land Management planning processes and environmental impact statement preparation codified. The code does not specify how economic analysis is to be done, but it does imply the types of economic issues to be considered. Economic efficiency is identified as a relevant planning and decision criterion: "the estimated sustained levels of the various goods, services, and uses that may be attained under existing biological and physical conditions and under differing management practices and degrees of management intensity which are economically viable under benefit-cost or cost effectiveness standards prescribed in national or State Director guidance" (Code of Federal Regulations, August 7, 1979, Subpart 10601.5-4(4)). Interregional equity considerations likewise are relevant, in that "the relative significance of the public land products, services, and uses to local

economies shall be considered" (Subpart 1601.0-8(d)). Further, resource management plans must not ignore the degree of local dependence on resources from public lands (Subpart 1601.7-4(7)). The intertemporal equity issue is implied by the stated principle that "long-term benefits and detriments to the public shall be weighed against short-term benefits and detriments" (Subpart 1601.0-8(i)). No direct reference to either interpersonal or intersectoral considerations appears in the code of regulations.

### **Can Recognition of Distributive Equity Concerns Avert the Sagebrush Rebellion?**

Few would disagree that, as of this writing, the procedures developed and implemented by the Bureau, at least with respect to economic analysis guidelines, are inadequate. In fact, it is questionable whether the existing procedural guidelines conform with the scope and intent of the Bureau's own code of regulations [Bureau of Land Management, 1980(a)]. These deficiencies are recognized by the BLM, and are implicitly acknowledged in the agency's March 1981 "Social and Economic Analysis" policy and action plan.

"The changing environment of public land management requires that the quality of social and economic analysis in BLM be improved, that the development and use of rigorous social and economic analysis techniques be pursued efficiently, and, most importantly, that more efficient, equitable, and timely management decisions be made, including strategies for improved impact mitigation when national needs conflict with local preferences and fiscal capability" [p. 6].

The policy and action plan sets in motion a process to achieve three goals: (1) policy and procedural guidance; (2) enhanced methodological capability; and (3) guidance on mitigating the adverse impacts of public land use decisions. Interim procedural guidance is provided by existing instructional memoranda, e.g., [Bureau of Land Management, 1979, 1980(c), 1981(a)]. These existing guidelines are consistent with the U.S. Water Resource Council's emphasis, in its 1979

version of the Principles and Standards, on national economic efficiency and environmental quality as decision criteria. However, these interim guidelines also are somewhat inconsistent with the distributive equity concerns expressed in the Code of Federal Regulations and in the Bureau's recent policy and action plan.

In December 1981 the BLM issued Instructional Memorandum 82-106, the purpose of which is to establish a process for developing new economic analysis procedures and criteria for rangeland investment [Bureau of Land Management, 1981(c)]. The memorandum acknowledges that the Bureau's techniques for project evaluation have not kept pace with changing policy, and that these techniques have been subject to criticism by Congressional representatives, members of the livestock industry, university economists, and the Office of Management and Budget. The process to be followed involves the explicit collaboration of a team of Bureau economists, senior managers, and "western university economists" prior to the adoption of the new criteria and procedures for economic analysis by the BLM. The challenge facing both agency and university economists will be to recommend both criteria and procedures which are consistent with the re-emerging emphasis on distributive equity as a decision criterion in public land use planning.

Some observers might conclude that the apparent change in philosophy within the Bureau of Land Management is a response to a shift in national sentiment. Others might take a more cynical view toward bureaucratic adaptation to a new administration. Supporters of the "Sagebrush Rebellion" well may claim that their voices have been heard, and their concerns heeded. Any or all of these views may be valid. The Bureau has come to recognize that distributive equity issues do have a legitimate place in the public land use decision-making process. Time will determine whether that recognition successfully averts, or has come too late to suppress, the American land reform movement of the

1980s: The "Sagebrush Rebellion."

## References

- Beef, "'Sagebrush Rebellion' Leaders Attack Short-Term Problems," March 1981, pp. 79-81.
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 80-57, "Revised AMP Economic Analysis Procedures," October 26, 1979.
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 80-704, "Social and Economic Analysis in Management Framework Plans and Resource Management Plans/Environmental Impact Statements," August 13, 1980(a).
- Bureau of Land Management, United States Department of the Interior, "Final Ironside Grazing Management Environmental Impact Statement," Oregon State Office, October 1980(b).
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 81-99, "Guidance for Social and Economic Analysis in Grazing Environmental Impact Statements," November 25, 1980(c).
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 81-296, "Proposed Rangeland Improvement Policy," March 3, 1981(a).
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 81-315, "Social and Economic Analysis: Policy and Action Plan," March 11, 1981(b).
- Bureau of Land Management, United States Department of the Interior, Washington Office Instructional Memorandum No. 82-106, "Development of Economic Procedures and Criteria for Ranking Proposed Rangeland Investments," December 2, 1981(c).
- Carver, J. A. "FLPMA of 1976: Fruition or Frustration?" *Denver Law Journal*, 54(1977):387-444.
- Code of Federal Regulations*, "Public Lands and Resources; Planning, Programming, and Budgeting," Department of the Interior, Bureau of Land Management, 43 CFR Part 1600; published 44 F.R. 46386, August 7, 1979.
- Federal Land Policy and Management Act of 1976, Public Law 94-579, 94th Congress, October 21, 1976.

- Federal Register*, "Principles and Standards for Planning Water and Related Land Resources," Washington, D.C., September 10, 1973.
- Federal Register*, "Principles and Standards for Planning Water and Related Land Resources," Washington, D.C. May 24, 1979.
- Haveman, R. C., "Efficiency and Equity in Natural Resource and Environmental Policy," *American Journal of Agricultural Economics*, 55(1973):868-78.
- Haveman, R. C. and B. A. Weisbrod, "Defining Benefits of Public Programs: Some Guidance for Policy Analysis," *Policy Analysis*, 1(1975):169-96.
- Hicks, J. R. "Foundations of Welfare Economics," *Economic Journal*, 49(1939):696-712.
- LaFollette, C., "Taking Stock of BLM Planning," *Forest Planning*, July (1980):4-6.
- League for the Advancement of States' Equal Rights, "Agenda for the 80s: A New Federal Land Policy," Proceedings of the National Conference on States' Rights, the Sagebrush Rebellion, and Federal Land Policy, Salt Lake City, Utah, November 20-24, 1980.
- LeMaster, D. C. and L. Popovich, "Development of the National Forest Management Act," *Journal of Forestry*, December (1976):806-08.
- Malin, L., "Rangeland Policy: A Look Back," in J. B. Wyckoff (ed.) *Federal Land Use Policy: Improving Citizen Participation*, Oregon State University Extension Service, Corvallis, 1980.
- Matthews, D. J. (ed.), "An Economic Evaluation of the Transfer of Federal Lands in Utah to State Ownership," Utah Agricultural Experiment Station, Utah State University, Logan, May 1980.
- Muys, J., "The Public Land Law Review Commission's Impact on the Federal Land Policy and Management Act of 1976," *Arizona Law Review*, 21(1979):301-09.
- National Environmental Policy Act of 1969, Public Law 91-190, 91st Congress, January 1, 1970.
- Obermiller, F. W., "The Local Costs of Public Land Use Restrictions," in *Beef Cattle and Range Resources*, Special Report 583, Oregon Agricultural Experiment Station, Oregon State University, Corvallis, May 1980.
- Public Land Law Review Commission. *One-Third of the Nation's Land*. Washington, D.C.: U.S. Government Printing Office, June 1970.
- Taylor Grazing Act of 1934, Public Law 73-482, 73rd Congress, June 28, 1934.
- Weisbrod, B. A., "Income Redistribution Effects and Benefit-Cost Analysis," in S. B. Chase (ed.) *Problems in Public Expenditure Analysis*. Washington, D.C.: The Brookings Institution, 1968, pp. 177-209.
- Wyckoff, J. B., "Allocative Problems of Public Lands in the West," *Western Journal of Agricultural Economics*, 2(1977):11-20.

