

EARTH RESOURCES, PUBLIC INFORMATION, AND EDUCATION: THE ISSUE

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EARTH RESOURCES, PUBLIC INFORMATION, AND EDUCATION: THE ISSUE

Statement of Issue:

Earth resources are fundamental to the rise of civilization and the maintenance of society. However, access to the abundant earth resources of the United States today is increasingly hampered by ill-founded or overstated arguments about detrimental effects of earth resource development. Public education and information is necessary in order to continue producing society's necessary resources at costs that permit all citizens to share in our national wealth.

Increasing global population, uneven distribution of wealth, unequal distribution of earth resources, and poor knowledge of dependence of civilization upon earth resources have created a setting in the United States where esthetic, biological and social resources are given priority over earth resources, to the detriment of society. Much of the strife between economic expansionists and

contractionists is rooted in lack of knowledge and understanding of the earth resource base upon which society is constructed and civilization is maintained. Lack of this understanding has led to world war in the past and to limited wars and reactionary isolationism in the present.

Today the United States faces a huge balance of payments deficit, global indebtedness, lack of competitiveness, and societal decay. Part of these problems lie in uneducated promulgation of laws, regulations, and litigation affecting development earth resources, and popularism of anti-resource attitudes. Our population continues to grow geometrically, while our access to resources declines.

Earth resources are defined as being the minerals, energy, water, and soil resources of the earth. The affected industries include energy, mining, quarrying, agriculture, and forestry.

who lack understanding of their society and its dependence upon earth resources. Soil, timber, water, minerals and energy are precious resources upon which the societal fabric of America depends, but their accessibility is being diminished amid political arguments that use of earth resources is damaging to the human environment and destructive of the biologic environment. Missing from most arguments is an understanding of earth resources, their exploration, development, extraction and reclamation, and any real perception of real societal needs for resources and the sources of those resources.

For instance, in a world where the United States faces increasing economic competition, few citizens realize that our earth resource policies help determine our national economic health. Transfer of wealth from the United States to other countries through purchase of basic earth resources, such as oil, in support of service industry, causes a net loss of wealth to the United States, a weakening of the economy, and increasing dependence upon goodwill of third world and oriental countries for our basic commodities and credit.

Earth resource policies of the United States are composites of local, state, federal, and international regulations and perceptions, promulgated for purposes as diverse as environmental preservation, public health, and social engineering. The national health and security requires that a strong earth resources base be present under the United States flag, but it is not clear that public policies always serve that purpose.

Clear diversity of opinion about resources policy has evolved from the three major groups who determine policy: the industries involved, the government, and various non-development groups. In consequence, policy, particularly federal policy, has lacked consistency and become litigious. Environmental Protection Agency standards for water quality conflict with ambient natural pollutants in some cases, water quantity cannot be assured at sufficient quality, and public health concerns over degradation of water quality conflict with industrial, residential and other resource development.

Divorcement of product from raw material has occurred in our increasingly urban population. As

example, little connection is made between turning on a television set and mining coal. Many years ago we farm kids laughed at city kids who thought milk came from bottles. We did not correct then the problem of resource and product divorcement, and now we reap conflict over resource usage.

Federal offshore oil and gas lease sales have been cancelled or modified by congressional action in response to conflicts between the three major policy groups. Costs of housing skyrocket, but timbering is under massive attack. The United States is being asked to supply more and better food to the world, and agriculture is being shorn of its water, chemicals, and lands. Industry decries the interference of politics and non-development groups in its business, but requests that an import tax be placed on foreign petroleum. We import value-added petroleum products, but we can build no new refineries. We worry about foreign competition, and give our businesses unlimited liability for problems caused by a prior generation.

Other citations of conflicting policy decisions that hamper the nation's ability to cope with problems of

water, energy and minerals are legion. The issue of acid rain is germane to this discussion. If it is true that smokestack emissions from coal-burning plants in the upper Midwest cause acid rain, then the ideal approach would be to reduce those emissions, but without eliminating the industry and jobs that are sustained by those plants. Congress originally mandated three rules for control of these emissions: 1. natural gas was not be used, despite its abundance, because of the national fuel use act. 2. The specific technology for reducing emissions has been specified (scrubbers), rather than let the emitters use the best available technology. 3. Percentage reductions were required rather than the setting of absolute standards, thus effectively preventing the use of low sulfur western coal, a legislated social and economic benefit for eastern coal producers, but one that actually raises emissions. Control of emissions through political specifications is not in the interest of either the industries involved or the environment (NACOA Acid Rain Position Statement, July, 1986). Congress unwittingly became part of the problem, rather than part of the solution, though the zeal of a few to

provide economic benefit to their own constituents.

Proletarian earth resources such as sand and gravel, and rock quarrying, so essential to construct homes and offices, factories and apartments, sidewalks and streets, are increasingly denied to local areas of use, necessitating expensive transportation and concomitant increased use of other fuel resources, roads and highways, because we do not wish to have the local resources used. "Not In My Backyard!" is a common refrain, separating affluent suburbanites from less fortunate urban dwellers.

Without taking a stance on the wisdom or merit of our collective attitudes, it is obvious that many of the decisions are made without real understanding of the resources involved.

The problems are apparent, the causes and solutions are less so. Two major causes seem to be evident. There is a lack of common ground and understanding of the issues and technologies involved in resource development and the side effects of such development. Second, there is a lack of credibility and trust between the three major

policy determinant groups. An example of the first problem is a recent statement by a representative of the Office of Technology Assessment to the effect that, since a couple of unsuccessful wells had been drilled off Baltimore Canyon and that the Mukluk well in the Arctic Ocean had been unsuccessful, we are assured that no more leasing or exploration will take place - we had "proved" that there was no oil and gas to be found. The technology of exploration is clearly not within the purvey of that organization.

Distrust and disinclination to accept data presented by one or another of the policy-maker groups is common. One example of this, also petroleum-related, is the refusal to accept the environmental impact statements written by the Department of Interior for OCS development. Since the DOI is also the leasing agent, most non-development groups believe that there is no way the statements can be accurate since there is an obvious conflict of interest. Similarly, the minerals industry is opposed to the Minerals Management Service attempts to take control of deep seabed mining regulation, since the industry does not trust the MMS to work towards

understanding mining vis a vis petroleum leasing, and the technology is expensive and difficult. Both arguments are current and as yet unresolved.

Solutions to these problems will not be easy nor quick. But there are several tacks that can be taken to bring the three sides closer to a reasonable settlement of conflicts. In all cases, it is important for earth resources producers and primary users to take a proactive stance towards enhancement of education rather than retain the current reactive stance. First, education of the lay public and the contesting organizations about the specific technologies and processes that are involved in the resource development or protection process can have impact on the speed with which conflicts are resolved. Second, a clear and documented evaluation of the issues and proposed actions by an independent, non-advocacy authority familiar with the appropriate technology can push all participants toward using the same data base, eliminating misinformation and focusing on the real issues rather than a maze of peripheral issues. Third, a forum for exchange of views moderated by an

independent technological agency can help clear the issues of unnecessary rhetoric and confusion while aiding participants in understanding each other's positions. The presence of a clinically independent party, provision of an independent data base and education of the participants should measurably assist the conflict resolution process.

Our earth resource basic industries, petroleum, agriculture, forestry, and mining, have all made sporadic efforts to educate the American public about current issues, but have been largely unsuccessful because of several errors. First, there has been no sustained program to create information transfer systems and to provide facts and data to users in educational systems and policy-making bodies. Second, the major attempts made to date have been through industry trade groups, are largely ignored simply because they are industry-based. Third, many programs have focused on combatting specific issues, rather than basic concepts. Fourth, previous efforts have been reactive rather than pro-active.

To effectively bring an earth resource message to the public,

several boundary conditions must be met. The message, above all, must be truthful, substantiated by measurements, facts, and documents. The messages should present a clinically sound case, and be devoid of any proponent bias. Second, the media used must be the media from which the audience normally receives messages. That is, for some, instructional materials for primary and secondary schools will be useful, for others, a series of video tapes may be most effective. Speeches, testimony at public hearings, technical articles in various public policy journals, popular books, and support of entertainment opportunities are other methods of getting information to the audiences. Support of field institutes, teaching training summer programs, and youth programs are also potentially useful to educate leaders of tomorrow.

Possible Products:

If a formal program of earth resource public education and information were to be instituted, products would be books, articles, and video materials prepared for public use, at a variety of intellectual levels, plus field institutes, speeches, testimony, data bases and other media as

appropriate. The topics of primary importance are the role of earth resources in every day life, the earth resources base of civilization, economic impact and job impact of earth resources importation, real cost of imports, the technology of earth resource development and use, impact of regulations and laws upon earth resources development and concomitant costs, real environmental impacts of resource use vs. non-use, role of every day public misuse of resources vis a vis environmental degradation, wealth transfer by importation, and the real worth of earth resources.