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The Rockefeller Foundation

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ROCKEFELLER FOUNDATION EVALUATES UNIVERSITY ENVIRONMENTAL PROGRAMS

The Rockefeller Foundation reported today that a single nationwide pattern for advancing higher environmental education is probably not feasible nor desirable.

The Foundation presented its findings in a 68-page report analyzing the experiences of four universities which had received a total of nearly \$3 million in grants in a three-year period to set up environmental studies programs. see PRO ENV-7

It was hoped that these four - Pennsylvania State, the University of Michigan, Utah State University, and the University of California at Davis - would be models for other institutions to follow. Instead, it was determined that "each academic environment is unique and...non-replicable."

Despite some disappointments, Dr. Ralph W. Richardson, Jr., Director of the Rockefeller Foundation's Natural and Environmental Sciences, reported that there were many accomplishments:

*Hundreds of talented individuals, both at the beginning and in the prime of their academic careers, have been favorably affected.

*The grants have stimulated interdisciplinary research on important regional problems.

*Teachers and scholars who otherwise might not have gone into interdisciplinary, problem-oriented work have been assisted.

*The energies and ideals and the institutional arrangements of the grants released on the four campuses are ongoing.

*One of the overriding benefits was the creation of a mood or climate of opinion at these universities that favored environmental study.

The Rockefeller Foundation's Quality of the Environment Program has as its major aim the improvement of man's ability to face up to and solve important environmental problems.

One criterion for success is the "development of permanent institutional capability to discern and discuss and research such problems." Universities are the obvious candidates for this role because "they constitute the nation's leading bank of intellectual talent and research capability." Dr. Richardson contends that in their teaching function at the undergraduate, graduate and community service (extension) levels, "universities can exert a major influence on public opinion."

A special advantage of the university's abilities is its continuing nature. Universities also can integrate environmental teaching and research, making these activities a part of the regular program over many years.

"This kind of sustained effort is particularly important when dealing with subjects of great complexity such as the man-environment interface," Dr. Richardson said. "From a granting organization's point of view an investment in a university is much more likely to produce multiplied, long-term dividends than would be a comparable award to a 'think tank.'"

Part of the rationale behind the Foundation's geographic distribution of the grants to universities in the East, Midwest, Rocky Mountains, and Far West was to provide regional centers of excellence that others might emulate.

"The expectation that a few institutions could be bellwethers for their region also proved illusory," the report said. "The four institutions...had a hard enough time launching their own interdisciplinary environmental programs without the added burdens of neighborhood leadership.

"University collaboration with government agencies is also a difficult but essential activity, and requires further intensified effort. However, the universities have devised effective strategies for new and broader interdisciplinary approaches to problem solving.

"They have directly assisted, through cooperation with government agencies, in the resolution of critical land use and water management problems. To a remarkable degree, the laboratories and classrooms have been taken to the fields, urban areas, and countrysides where the issues and problems exist."

Dr. Roderick Nash, Professor of History and Environmental Studies, and Chairman of the Environmental Studies Program at the University of California at Santa Barbara, presented 15 recommendations for developing environmental education and research at American universities. Dr. Richardson said these recommendations, along with the experiences of the four universities, suggest that "it is possible for every institution of higher education to become more responsive to man's vital need to solve his environmental problems."

Dr. Nash said in the report that universities often have held back in bringing their "awesome expertise" to bear on pressing issues of today. He said that they do this "under the guise of resisting outside pressure and preserving objectivity," but that it really is related to a conservatism about taking on new tasks and potential risks.

Another dimension of the typical university's resistance to environmental studies, Dr. Nash said, is the challenge it poses for "pure" research. "It is possible to maintain that some kinds of knowledge are more valuable than others," he said. "The criterion is the need of society based on the problems it faces presently and those it anticipates in the future."

As evidence of the potential rewards of university involvement in contemporary concerns, Dr. Nash said that proponents of problem-oriented education cite the way schools of agriculture and public health arose in major American universities early in this century and led progress in those fields.

"In these instances," he said, "the magnitude of social needs simply overcame the universities' reluctance to move in practical directions. One conclusion is that environmental problems have not yet produced the same intensity of public concern. But it is also possible to blame universities for not fully accepting the responsibility of public leadership."

Dr. Richard D. Schein, Director of Penn State's Office of Environmental Quality Programs, said that many of today's environmental problems are attempts to lessen yesterday's problems - born of our ignorance of the environment's delicate balance.

"As a society, we did not, in the past, fully consider that smoke in the air, chemicals and sewage in streams and scarred hillsides caused by highways, quarries, and mines are a dangerous and cumulative price to pay for goods and services," Dr. Schein said in the report. "Our thinking has not

been comprehensive; and we have proceeded without wise, long-range policies to guide us....With large resources for research and education, a university can establish guidelines for intelligent planning, good legislation, and fair regulation by those outside."

At Penn State, Dr. Schein said, it was found that the university had great technical expertise in the science and technology of the environment, but that the solution to society's problems would depend upon decisions in the social sphere.

"We have become increasingly aware of the need for greater public education in environmental areas," Dr. Schein said. "We would judge that land-grant universities have not only an enormous potential and opportunity in providing public education in environmental matters to students outside the campus walls, but a great responsibility as well."

Dr. A. Geoffrey Norman, Director for Environmental Quality at the University of Michigan, said that not until the past century, or particularly the last 50 years, did man possess the technological and social means of changing his natural environment in ways that could produce dangerous and far-reaching effects.

"Today almost every citizen is aware that almost all aspects of his total environment - natural, biophysical, sociopolitical, aesthetic - have been deteriorating at an unprecedented rate," Dr. Norman contended, "and that immediate and sophisticated action is required to halt and where possible to reverse this process."

Part of the current social anxiety about environmental quality stems from a widespread feeling that effects of a deteriorated environment that we have not perceived yet may be more serious than those already discovered, the Michigan educator said.

Dr. Cyrus M. McKell, Director of the Environment and Man Program at Utah State, reported that his university's program sought to stimulate interdisciplinary cooperation, particularly between the social sciences, humanities, and the natural sciences. Major problems were examined in colloquia with faculty and students and experts from outside the university.

"There is no question that the Environment and Man Program has had a significant impact on the university," Dr. McKell said. "The university's image, already strong in natural resources, agriculture, water resources,

and ecology, has been strengthened by the interdisciplinary approaches that have been brought to bear on these disciplines...The major programs in land use planning, energy resources decision making, values and solid waste management are actively being continued."

At the University of California at Davis, the Division of Environmental Studies is an intercollege unit involved in undergraduate and graduate instruction, research and public service. In the report, Dr. Robert A. Matthews, Associate Dean of Environmental Studies, and Dr. Leonard O. Myrup, Chairman of the Division of Environmental Studies, wrote: "We view environmental problems and their solution as part of the total spectrum of the needs of society. Consequently, we feel that our primary goal is to assist in the reconciliation of the environmental, social, and moral imperatives which face human society today."

The concept of "information delivery" to the extramural community is an essential part of the duties of the division faculty, Drs. Matthews and Myrup said. "We feel that this is necessary if society is to reach wise decisions about its environmental resources."

The 15 recommendations distilled the experiences of the staff, consultants and grant recipients of The Rockefeller Foundation. They constitute an ideal and, in view of the recent and continuing budget shortages, few universities could move positively in all directions even if they so desired. "Pragmatism is essential," wrote Dr. Nash. "The recommendations should be tooled to fit in a specific academic situation....The policies and practices...are those best calculated to advance the study of the environment in a university context."

The recommendations:

1. Establish a continuity of tenured faculty leadership.
2. Regard programs, in both teaching and research, as interdisciplinary processes rather than competition for the traditional disciplines.
3. Make support by university administration a prerequisite for starting programs.
4. Environmental studies units should be campuswide and autonomous.
5. Create a core faculty by making full-time professional appointments.
6. Part-time appointments should be made with the clear understanding of responsibilities and ultimate commitments.

7. Avoid voluntarism. ("Alternatives that depend upon the good will of departments or faculty are normally doomed to failure after the initial burst of altruism passes.")

8. Orient most of the teaching and research around actual environmental problems.

9. Thoroughly inventory existing faculty interest and establish the broadest possible base of support for the program.

10. Establish an interdisciplinary "President's seminar" for selected faculty.

11. Make a special effort to involve the humanities and social sciences in environmental teaching and research.

12. Create new courses in environmental studies.

13. Establish an undergraduate major in environmental studies.

14. Develop opportunities for community service.

15. Evaluate environmental studies regularly and frankly.

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