

lic hearings are required by law and have not been held. A federal district court has temporarily enjoined the carrying out of plans for the resort, but the case has not yet been decided.

As in the question of whether a party has standing to sue, burden-of-proof rules can be critical to the outcome of a court case. And, in the past, the burden of proof generally has fallen on the conservationists bringing the suit. However, a 1966 ruling of the New Jersey Supreme Court is viewed by some legal scholars as a sign that

judicial attitudes on this point are changing. Texas East Transmission Company was condemning a right-of-way for a gas pipeline across a wooded tract owned by Wildlife Preserves, Inc., a private nonprofit organization, which insisted that the project would be less damaging ecologically if the pipeline were routed across a marsh.

The court held that, since Wildlife Preserves, Inc., was devoting its land to conservation objectives often pursued by government itself, it should not be required to carry as heavy a

burden of proof as the ordinary property owner who protests that the condemnation of a particular piece of land is arbitrary. It said, in effect, that if Wildlife Preserves, Inc., made out a *prima facie* case, the burden of proof would shift to the company. The case ultimately was decided in the pipeline company's favor, but not until the trial judge was satisfied that the upland route for the pipeline was as acceptable ecologically as the marshland route and that special protective measures would be taken.

Environmental lawsuits are often supported on a shoestring by the fundraising efforts of local conservation groups, whereas the defendants are generally well financed industries or government agencies. The struggle is not so unequal as it might seem, however, for the conservationists frequently can call as expert witnesses environmental scientists who are leading men in their fields. These scientists usually receive no more for their services than expense money and the satisfaction of striking a blow in a holy war.

In the hearings on DDT in Wisconsin last winter, for example, the Environmental Defense Fund (EDF) produced witnesses from fields such as fishery and wildlife biology, botany, entomology, chemistry, and pharmacology. These witnesses were all unpaid volunteers, some from the University of Wisconsin, while others were from universities and laboratories in California, New York, and other distant places. The attack in Wisconsin on DDT, which was well publicized nationally and undoubtedly helped to create the present climate of concern about this pesticide, was undertaken on the initiative of the Citizens Natural Resources Association, a small but ecologically sophisticated Wisconsin group in which scientists are prominent.

Clearly, if conservationists should find the courts increasingly willing to help protect the environment, a heavy debt will be owed ecologists and other environmental scientists. In fact, the conservation movement probably would be doomed to deepening frustration and failure if it were not taking on a scientific rationale. In a crowded world, with increasing competition for resources, the most persuasive appeals for conservation are likely to be those supported by hard evidence of impending environmental upsets, large or small.

In hopes of forestalling one such upset, the Florida Defenders of the En-

AMA Research Institute To Close

The American Medical Association (AMA) has decided to close its 4-year-old Institute for Biomedical Research in Chicago.

A spokesman for the AMA said the institute was being closed "reluctantly" for financial reasons: the AMA estimates that a new tax provision passed by Congress, calling for taxation on advertising revenue in the publications of nonprofit organizations, will cost it about \$6 million next year. The AMA had budgeted \$1.4 million for the institute, which houses its 35 staff members in the AMA headquarters building in Chicago.

Money, however, is not the full explanation for the closing. The director of the institute, George Beadle, told *Science*: "When I came to the institute in 1967, the financial problem was indicated as not a problem. The tax was known about then as a probability." Beadle added that he doesn't think "the AMA House of Delegates was ever firmly committed to the institute."

Since its inception, the institute has not quite lived up to its expectations, partly because of very high expectations and partly because of internal difficulties. (See *Science*, 29 December 1967.) "The beginning of a dream come true," exclaimed Roy Ritts, Jr., the first director, when the institute was dedicated in 1965. The idea was to have a research center where staff members could work free from the requirements of teaching, grantsmanship, and, in the words of the president of the AMA's Education and Research Foundation, "the far too many unnamed compulsions and even irritations that have confronted research in America." By 1967, however, it was apparent that not all the scientists considered the institute irritation-free. Director Ritts left for a position at the Mayo Clinic and Nobel laureate Sir John Eccles resigned too. Beadle, a Nobel laureate who was retiring as president of the University of Chicago, became director of the troubled institute, but he would take the job only on the understanding that the institute would move to a university while remaining under AMA auspices. Relevant AMA officials accepted this condition, although Ritts predicted it meant "the demise of the institute." For two years, the AMA negotiated with the University of Chicago about the move, but then the AMA House of Delegates voted to drop the institute altogether at its most recent meeting on 2 December.

One source, who wished to remain anonymous, suggested that the AMA probably could have continued to support the institute at its present budget but that the move to the university, which he said was insisted upon by Beadle, was turning out to be something like twice as expensive as the original estimate of about \$5 million.

In making its decision to close the institute, the AMA authorized necessary transitional funds while the scientists there find other positions. Beadle told *Science* that he is still hoping to move the whole institute to a new home, but this, he admits, is "a long shot."—JOEL R. KRAMER