

'overpromise' to the American people—or, for that matter, to peoples throughout the world," John Hogness, president of the National Academy of Sciences' new Institute of Medicine, testified this week.

According to Boris Sokoloff, director of the A. P. Cooke Memorial Cancer Laboratory at Florida Southern College, it was scientists who instilled the idea for a separate cancer authority into legislators' minds in the first place. Thirteen medical men, he asserts, "declared war" on the NCI as a bureaucratic institution which was not coping efficiently with cancer research. If this is the case, it is particularly ironic that scientists, both as societies and as individuals, have not provided legislators with more guidance either in shaping a new agency or in quashing the idea as a politically inspired redundancy. "You don't know how many scientists out there would have something to say to you if they only knew about these hearings!" exclaimed one of the scientists. Even among researchers who did testify, some had not even read the new House bill, and thus could not compare it with the Senate bill. In all, the hearings left observers with the feeling that the idea for a super cancer agency might have been poorly conceived from the start.

John Heller, president of the New England Institute in Ridgefield, Conn., and a physician-researcher for 26 years, admitted his confusion: "It's difficult to comment on the verbiage of either the Senate or House bill. I do not understand what an independent agency within NIH means."

Kyros: "Under the Senate bill the agency is separate from NIH; under the House bill it is part of NIH. So there is a difference."

Heller: "But what does that mean as far as a cure?"

Kyros: "We are asking you . . . why you are here."

Some of the scientists at the hearings, such as John Biddle of the National Tuberculosis and Respiratory Disease Association simply suggested that the super cancer agency idea be shelved and that more funds and a little more steam be channeled into existing agencies. These suggestions, however, will probably not get beyond the inner sanctum of the House. As public sentiment stands now (thousands of letters have poured into the offices of legislators, endorsing a conquer cancer program), there is little doubt that some new cancer conquest agency—even if a legislative Medusa—will be born.

After all, what Congressman or Senator wants to go on record as opposing a program to cure cancer—or wants to buck the notion, shared by millions of Americans, that change always brings improvement? □

Global ecological problems: Tragedy of the commons

Apart from all the polemics, the facts about the world's environment and man's effects upon it are quietly being laid out by objective scientists. Sometimes the scientific truth is more shocking than the polemicists assert; sometimes it is more reassuring (as in the assurance that the world's supply of oxygen is not endangered).

The 1972 United Nations Conference on the Human Environment in Stockholm will be the first large-scale effort to bring together the available information and then to seek rational courses of action to deal with the problems revealed. A number of scientists all over the world are now forming groups and issuing reports in anticipation of the conference. One of the first was the Study of Critical Environmental Problems (SCEP), a group centered at Massachusetts Institute of Technology that reported last year.

One section of the SCEP report was devoted strictly to ecological problems. Now another group, taking SCEP's ecology section as a base, has issued a detailed report on this more limited subject.

Four groups of ecologists, supported by the National Science Foundation, were involved in the effort: the Institute of Ecology, the International Association for Ecology, the Ecological Society of America and the U.S. International Biological Program. Although the Institute of Ecology is listed as one of the contributors, it is also the organization issuing the report.

Actual preparation of the report took the same approach as the SCEP effort. First the scientists participating were formed into the new organization, then an intensive workshop on global ecological problems was held to compile and integrate their findings. The report was issued last week.

The thread running throughout the report is the concept explicated by Garrett Hardin in an article in *SCIENCE* in 1968. The fundamental dilemma of man, said Hardin, is "the tragedy of the commons:" Resources are finite, but individual human needs, even when the individual perceives them rationally, are not. Thus there must be a collision when too many individuals make too many demands on common resources. Hardin's solution: Create "mutual coercion," a system of incentives and disincentives which, without creation of guilt or punishment, cause men to act in accordance with the reality of a finite environment. Parking meters that assess the real costs of parking and thus discourage automobile use in cities is a simple example which he gives.

The new report presents a series of

recommendations all aimed at creating such incentives and disincentives on a global scale. The first, and perhaps most important one: "We recommend that every effort be devoted to ensuring that the world population stop growing at the earliest possible date.

"In the absence of a world population policy supported by a consensus of nations and based on sound knowledge, it is impossible to formulate rational policies for the utilization of the world's resources," the report emphasizes.

Many of the other recommendations are related to the first. For instance, the report recommends the establishment of an international agency to advise "on the prudent production, distribution and use of the phosphate resources of the world." One obvious reason for the recommendation is growing use of finite reserves of phosphate for fertilizers for crops to feed a growing population. Other reasons include the failure to recycle phosphates and wasteful techniques of production and use.

The insistence on international agencies is another thread that runs throughout the report; without effective control over all nations' resource programs, the "tragedy of the commons" is not halted.

The new report is not wholly a conceptual or policy-oriented effort. It describes, in clear, understandable prose, the empirical scientific bases of its recommendations, but it also concedes that in many instances not enough science has been done to arrive at clear-cut recommendations. But the policy recommendations may be the most important aspect of the report. As Hardin points out, the population problem is not one susceptible of a purely technological solution. □

No need seen for more research universities

The Carnegie Commission on Higher Education predicted this week that 30 years from now, enrollment in America's colleges and universities will reach at least 16 million students. To accommodate them, the country will need between 175 and 235 new two-term community colleges and 80 to 105 new four-year comprehensive colleges—mainly in metropolitan areas.

Clark Kerr, chairman of the commission, issued these projections with a newly published report that calls for states to provide financial incentives to small institutions and stresses the effective use of facilities that already exist. The report further states that "we find no need whatsoever in the foreseeable future for any more research-type universities granting the Ph.D. Available resources should be concentrated on those that now exist rather than on creating new ones." □