BIODIVERSITY TREATY

Proposed Global Network for Ecology Data Stirs Debate

An international group of diplomats and scientists has come up with a proposal to give researchers around the globe instant access to information, from maps of species habitats to inventories of animal and plant genetic material. The proposed network of ecological databases—the first scientific fruits of the international biodiversity treaty signed 2 years ago in Rio de Janeiro—will be discussed and possibly approved later this month at a meeting in the Bahamas of the treaty's signatories.

Although the idea has strong scientific support, some researchers fear that it will become bogged down in a protracted dispute over how developing countries should be compensated for commercial use of genetic resources. Indeed, at the Bahamas meeting, a 2-week conference starting on 28 November, representatives from some countries are expected to propose that the network itself be the core of a new system for overseeing the equitable distribution of profits from genetic resources.

The Convention on Biological Diversity, as the treaty is formally known, is intended to preserve species diversity through a $2-billion pot that will fund conservation and research projects in developing countries over the next 3 years, as well as royalties paid to developing countries for commercial use of genetic resources culled from their land (*Science*, 19 June 1992, p. 1624). When negotiators began drafting the treaty 3 years ago, they recognized the need for a comprehensive source of ecological information to support implementation of the treaty. But it wasn't until last June, at a meeting in Nairobi, Kenya, that negotiators assembled the skeleton of a proposed ecological network called the "Clearinghouse Mechanism for Scientific and Technical Cooperation."

A document prepared for the Bahamas conference describes the clearinghouse as an on-line electronic database that provides a wealth of ecological data on plant and animal species, descriptions of ongoing conservation projects worldwide, methods for putting a price tag on biological resources, and lore from shamans and other practitioners of traditional medicine. Although the Nairobi conferees did not spell out which data repositories to be included or how to handle new data, several scientists and negotiators contacted by *Science* have identified existing and planned databases that may become part of the clearinghouse (see table). Indeed, many scientists see the clearinghouse as a major roadhouse on the information superhighway. "It should be a switching node where people can get in, find out what information is elsewhere, and go to those other nodes," says Peter Thomas, a U.S. State Department conservation officer and a coordinator of the U.S. negotiating team at the conference.

Conservation officials say the clearinghouse will help scientists from developing countries who have scant access to ecological data—even of their own country's resources. "In most developing countries, scientists lack up-to-date scientific journals," says Tom Hourigan, an environmental policy analyst at the U.S. Agency for International Development (AID). Scientists in developing countries gain access to information about key specimens in their country, he says, usually only when "researchers who have worked there repatriate their data."

The clearinghouse would also benefit Western scientists, says Peter Day, director of the Center for Agricultural Molecular Biology at Rutgers University, by improving access to hard-to-get information on worldwide germplasm holdings. "Even if you're a bright young molecular biologist, if you want to get a particular sample of germplasm you just don't know where to start," Day says.

But some countries, including Sweden, Malaysia, and several African nations, want to assign the clearinghouse another task—offering legal assistance to developing countries to help them broker access to their genetic resources. These royalty agreements are expected to become increasingly common, says Ulf Svennson, assistant undersecretary in Sweden's Ministry of Foreign Affairs, and developing countries are loath to approve the clearinghouse without such aid. Indeed, the African delegations are expected to announce a temporary ban on commercial access to their biological resources until they and other countries can develop rules on "fair and equitable sharing of benefits," according to a position adopted last month at the African Ministerial Conference on the Environment.

But some U.S. officials fear the information treasure-trove will be threatened if the clearinghouse is given additional duties. The cost of setting up a clearinghouse would soar, says Thomas, if it also were given the task of resolving questions about intellectual-property rights and equitable payment for material deposited in the databases. Experts at nongovernmental U.S. agencies agree: A mechanism to help design and execute royalty agreements "should be kept distinct from the neutral information-sharing work of the clearinghouse," says David Downes, a staff attorney at the Center for International Environmental Law in Washington, D.C.

The debate over the clearinghouse's scope could delay its launch, now expected in late 1995. And the United States may have little power to influence the debate. Formal participation in the meeting in the Bahamas is limited to the 100 countries, including the European Union, that have ratified the biodiversity treaty. However, the U.S. Senate failed to ratify the treaty last summer (*Science*, 12 August, p. 859), relegating the U.S. negotiating team to observer status. "If anything were to come to a vote, we would not be a player at all," says AID's Hourigan.

One possible compromise is giving the responsibility for designing the clearinghouse to a scientific advisory panel that is expected to be created at the conference. U.S. and Swedish officials say the panel provides a better forum than the conference itself to resolve the issue—and that it offers the best chance to launch the clearinghouse.

–Richard Stone

A BIODIVERSITY CLEARINGHOUSE TAKES SHAPE

Data Source	How It Works	Status
World Conservation Monitoring Centre, Britain	Provides advice and access to species databases	Available
U.N. Food and Agriculture Organization and associated germplasm banks	1 million–plus samples of plant, animal germplasm	Available
Biodiversity and Biological Collections, World Wide Web	U.S. ecological data sources via Cornell Univ. Internet server	Available
Environmental Resources Information Network, Australia	Data on Australian species	Available
Biodiversity Information Network (BIN21), Brazil	Government initiative to link global research sites	1995
U.S. National Biological Information Infrastructure (National Biological Survey)	Internet services to federal biological resource databases	Late 1995; Home page available
National Biodiversity Information Center, U.S. (Smithsonian Institution)	Internet service to tap existing U.S. databases	1997

SOURCE: NATIONAL GOVERNMENTS