

# US and Vietnam plan joint dioxin research

Rex Dalton, Monterey, California

In what some see as a unique research opportunity and others as an ironic footnote to history, the first US–Vietnamese research programme on dioxin pollution entered the planning stage last week.

A multidisciplinary panel of researchers assembled by the National Institute of Environmental Health Sciences (NIEHS) met in an attempt to identify research gaps that could be filled by bilateral studies.

The panel argues that Vietnam offers an unprecedented chance to conduct important research on human exposure to dioxin.

“This is it,” testified Michael DeVito, a toxicologist who studies dioxin for the Environmental Protection Agency and has visited Vietnam. “We may never again have a population exposed to this level.”

It is more than 30 years since the United States first sprayed the defoliant Agent Orange over the forests of Vietnam. The herbicide was contaminated with one of the most toxic dioxins — TCDD, often called simply dioxin — exposing large numbers of Vietnamese to the chemical.

Suggested topics for the joint programme, funding for which has been approved by Congress on condition that Vietnam also provides support, include a study on the carcinogenic effects of dioxin, an examination of developmental diseases (neurological and growth) in children exposed to the chemical, and new methods for assaying and analysing residual contamination.

NIEHS officials will use testimony from last week’s meeting to draw up a research plan for the delicate discussions with their Vietnamese counterparts. No funding or starting point have yet been set for the research. But US scientists on the panel said it should be



Apocalypse continuing: Vietnam is still suffering from the Agent Orange dropped on it in the 1960s.

done soon to capture the human and environmental impact of dioxin while worthwhile research results can still be obtained.

In return for its contribution to US studies of the human and environmental impact of the wartime spraying, Vietnam, which has limited research funds and lacks sophisticated equipment, is expected to seek US assistance with its pollution problems.

Christopher Portier, acting director of environmental toxicology for the NIEHS, hopes a US–Vietnamese meeting will take place within a few months in a neutral nation. “We are trying to get the governments to meet to set up a collaborative research effort,” he says. “Then we can go to academic scientists in both countries for proposals, which will be considered on a competitive basis.”

There were no representatives of the Vietnamese government at last week’s meeting,

which was held in Monterey following the 20th International Symposium on Halogenated Environmental Organic Pollutants and POPS (persistent organic pollutants).

But one Vietnamese researcher, physician Le Cao Dai, executive director of the Agent Orange Victims Fund set up in Hanoi by the Vietnam Red Cross, attended both meetings to present research and offer suggestions for scientific projects. Dai said that Vietnamese scientists are keen to carry out joint research.

The proposed project will have to overcome a bitter history of war, devastating environmental pollution resulting from the spraying, and decades of diplomatic acrimony. US military forces used Agent Orange in Vietnam between 1962 and 1970. The herbicide was used to kill vegetation around military installations and along transportation routes used by Vietnamese forces.

The land remains unforested, and many people still face exposure from residual dioxin in soil, water and animal fats, for example in fish and ducks. Panel member Linda Schwartz, a Yale University nursing researcher and Vietnam veteran, said that parts of Vietnam resemble “a huge, environmental Superfund [toxic dump] site”.

Five years ago, an attempt at bilateral dioxin studies foundered when US scientists and Vietnamese officials fell out over what pollutants to study and how specimens should be handled. Although new diplomatic links have helped overcome these disagreements, some new problems have emerged.

For instance, the ownership of any intellectual property from the project has been a sticking point in negotiations, says physician Michael Linnan, US health attaché to Vietnam. Many Vietnamese are concerned about US scientists capitalizing on research into the wartime spraying of their country. ■

♦ <http://www.niehs.nih.gov/oc/factsheets/dioxin.htm>

## Biodiversity cash aimed at hotspots

A \$75 million fund to preserve the world’s most endangered biodiversity locations was announced this week, with plans to double the amount soon.

The World Bank, Conservation International and the Global Environment Facility (part of the United Nations Development Programme) have each pledged \$5 million a year for five years for rapid intervention where biodiversity is threatened. The agencies hope other groups will donate at least another \$75 million.

During the first year of operation, the Critical Ecosystem Partnership Fund plans to focus on maintaining biodiversity in Madagascar, West Africa and the Tropical Andes in South America.

The fund will provide grants to manage areas of high biodiversity (known as hotspots), resolve conflicts with industries that destroy natural regions, and create partnerships between private firms and preservation agencies to address biodiversity issues. Planning, training and support services will also be funded.

“This is a new source of money exclusively for local groups whose work is central to protecting the biodiversity hotspots,” says Peter A. Seligmann, chief executive of Conservation International, a Washington-based agency formed to conserve biodiversity (see *Nature* 403, 853–858; 2000).

♦ <http://www.cepf.net>

R.D.