

sector of UNESCO, even before a formal environmental education programme was started there. Throughout the decade of the 70s, many integrated science courses were generated around the world in which the environment was used as the integrating factor.

Let us consider why Man-environment impact is a key educational issue of the 80s. Man prides himself in being the most intelligent animal on the Earth; yet he is the only one that has caused such vast devastation of The Biosphere. In less than a thousand years, which is the blink of an eye in geologic time, he has consumed a large proportion of the fossil fuels which took Nature millions of years to produce. The air we breathe is full of noxious fumes and radioactive particles of his making.

Man has placed millions of tons of concrete and cement on roads and cities where there were once forests and wildlife. At least 3,000 square kilometres of prime farmland is disappearing each year under buildings and roads in developing countries alone. Thousands of millions of tons of soil are being lost each year as a result of deforestation and poor land-management. Hundreds of millions of rural people in developing countries are forced to strip their land of vegetation in order to find wood for cooking and heat. Each year 4,000 million tons of dung and crop residues are burned for fuel which could otherwise regenerate soils. And now Man has the capability of generating a nuclear holocaust which could devastate The Biosphere and make life on Earth extinct.

A new sense of humility must be born in mankind. We should realize that if human beings could be removed from the Earth, it could probably heal itself and become once again a planet where the oceans were clean, the air pure, and the forests green and full of wildlife. *Remember that the Earth, its plants, and its animals, can survive without us, but we cannot survive without them!*

There may be those who would believe that such a world environmental education strategy would be too grandiose a scheme. But what, short of that, is going to reverse the trends that are driving us to damage the planet further and even further? I believe that Man is intelligent enough to generate an environmental ethic, through education, which can point the way to achievement of the goal of the World Conservation Strategy, namely, sustainable development for Mankind.

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#### **Mrs Indira Gandhi becomes Honorary Chairman of the IUCN Commission on Education**

The International Union for Conservation of Nature and Natural Resources (IUCN) is pleased to announce that Mrs Indira Gandhi, Prime Minister of India, has accepted to become honorary chairman of its Commission on Education. This was conveyed by personal letter to Dr Albert V. Baez, the Chairman of the IUCN Commission on Education.

The Commission on Education is one of IUCN's oldest, having been established in 1949, a year after the founding of the Union, and comprises an international,

voluntary group dedicated to enhancing the quality of life through educational programmes that promote conservation and sustainable development throughout the world. Its broad aim is to help the general public to understand the need to protect the environment and use natural resources wisely, and to motivate participation in activities which will attain this goal to the benefit of present and future generations.

The Commission on Education's activities are directed towards policy-makers and planners, educators, young people, and the public in general. Commission members currently total 293, drawn from 89 countries. They are active in all aspects of environmental education, and include policy-makers, scientists, educators, mass communicators, museum directors, youth leaders, and others.

#### **Virginia Environmental Endowment — A Cooperative Approach**

Through a unique decision in 1977 by a United States District Court, a penalty for environmental pollution was turned into a constructive, ongoing programme for environmental improvement. This precedent case, which occurred in the Commonwealth of Virginia, USA, has resulted in a most innovative, productive programme directed by the Virginia Environmental Endowment.

In 1977, Allied Chemical Corporation was fined \$13.2 millions for polluting the James River in Virginia with Kepone, a highly toxic and persistent insecticide. In an agreement with the federal court, Allied paid a voluntary contribution of \$8 millions to create the Virginia Environmental Endowment. In just over five years, the Endowment has awarded \$2.3 millions in grants and loans for over 80 projects to improve the environment of Virginia.

#### *Four Main Priorities*

To attract proposals which address some of the State's most critical environmental problems, the Endowment focuses its grant-making on four priorities: (1) the effects of toxic substances on human health and the environment, (2) environmental law, (3) community improvement, and (4) environmental mediation.

Two guiding principles have helped the Endowment to carve an effective role as a catalyst for State and local environmental activity. First, it recognizes that environmental concerns are global in scope but local in their effect on people's lives. Many of the Endowment's grant programmes have been designed to help people to translate national policies into local action.

Another principle which the Endowment follows is that people can accomplish more by working together than they can when working separately. New coalitions of business, government, citizens, and conservationists, are finding practical, long-term solutions to problems of keeping communities safe and liveable.

The following results of several grant awards in the Endowment's four priority areas illustrate the success of this direct, cooperative approach:

The discovery of the release of Kepone into Virginia's primary waterway was precipitated by the diagnosis of severe illness in chemical workers who were exposed to large quantities of Kepone in their workplace. With substantial support from the Endowment, research workers

at the Medical College of Virginia have successfully tested the detoxification of these workers and continue to study the human body's enzymatic conversion of Kepone.

#### *Toxic Substances*

The enactment and enforcement of regulations to protect Virginia's water resources and public health from toxic and hazardous substances are now being closely monitored by the Virginia office of the Environmental Defense Fund. Start-up funds from the Endowment have enabled EDF to provide scientific and legal assistance to government agencies and citizens on issues related to ground-water and surface-water quality and the disposal of hazardous wastes.

Initial funding from the Virginia Environmental Endowment has also enabled the Virginia State Chamber of Commerce to establish the Virginia Industrial Waste Exchange, a referral service for buyers and sellers of the by-products of manufacturing processes.

#### *Environmental Laws*

In the priority area of environmental law, a comprehensive analysis of Virginia's water-resource needs and legal alternatives for water allocation has been one of the Endowment's most important grant programmes. This study by Virginia Polytechnic Institute and State University is the basis for State legislative debate on water rights and transfers.

The Endowment worked extensively with the national Environmental Law Institute to develop a model State statute for compensation, for personal injury or illness, of victims of pollution by toxic substances. The Endowment is now collaborating with the State Government and the mining industry to develop effective regulations for the mining and milling of uranium, which has recently been discovered in Virginia.

#### *Community Improvement*

The Endowment's interest in community environmental improvement has taken the form of support to a variety of projects which build on local initiative and cooperation. Just a few of these programmes include educational training on aquatic ecology, toxic substances, and water quality; on emergency procedures for local water-supply contamination; on preservation and use of natural lands, parks, and trails; and on training for medical personnel to reduce patient-exposure to X-rays.

#### *Environmental Mediation*

Probably the Virginia Environmental Endowment's most promising and potentially productive grant programme is the Institute for Environmental Negotiation, which opened in 1981 at the University of Virginia, Charlottesville. The Institute is one of five centres in the United States which provides neutral mediation for environmental disputes. It has quickly built a creditable reputation among heretofore discordant groups by guiding the out-of-court resolution of such issues as neighbourhood zoning, air and water controls, and siting of public facilities.

A special project administered by the Institute and the Endowment is the Toxics Roundtable, a group of business, industry, and environmental, leaders who use the negotiation dialogue process to address problems of toxic substances and hazardous wastes. In its first year of

monthly meetings, the Roundtable hammered out a comprehensive draft plan and recommendations for the State's hazardous-waste disposal facility regulations.

#### *Extensive Benefits of Grant Programmes*

The achievement demonstrated by these grant programmes goes far beyond the immediate benefits of environmental improvement. By transforming the usually tepid, sometimes volatile, atmosphere inhibiting relations between business and environmental groups, the Endowment is helping to create new opportunities for cooperative discussion, funding, and participation, to resolve the nation's most critical environmental dilemmas.

Almost two years ago, the Endowment was chosen to administer a \$1 million fund for water-quality programmes in an area outside of Virginia—the Ohio River Valley. The funds for this separate grant-making programme resulted from a federal water-pollution violation by the FMC Corporation. The Endowment is now meeting with officials from industry, government, environmental groups, and other foundations, to develop priorities and cooperative funding plans for water-quality protection in that region.

The Endowment is dedicated to serving as a catalyst in uniting human and scientific resources and encouraging people to work together to improve the environment. It is a model programme for developing good ideas into practical results on a regional scale, such as we hope may extend ultimately throughout the world.

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#### **Wildlife Protection: Ensuring Observance Through the Council of Europe**

The illegal introduction of the American Rabbit *Sylvilagus floridanus* to Europe for hunting purposes threatens to destroy the delicate balance of wildlife on our continent\*, according to Ambassador Alfred Wacker, Chairman of the new Standing Committee of the Wildlife Convention\*\* and Permanent Representative of Switzerland to the Council of Europe. The Committee, set up under the Wildlife Convention to monitor its application, to ensure its adaptation to ecological evolution, and to intervene with Member States in the event of the Convention being contravened, held its first meeting at the end of September 1982 at the Council of Europe in Strasbourg. Other topical problems raised by the Committee were the precarious situation of migratory birds in periods of sudden cold (observed in par-

\* The European Rabbit (*Oryctolagus cuniculus*) caused widespread damage and major problems in Australia following its introduction there in the last century.—Ed.

\*\* See the account by E.J. Aulsems of this 'Convention on the Conservation of European Wildlife and Natural Habitats' in *Environmental Conservation*, Vol. 7, No. 2, pp. 143–4, 1980.—Ed.