

# **WORLD CONSERVATION STRATEGY OF THE INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE AND NATURAL RESOURCES (IUCN)**

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## **Summary**

The chapter discusses the development of the World Conservation Strategy in the late 1970s and describes its application in Pakistan from 1985 to 2002.

The World Conservation Strategy may have been IUCN's most important project and it has led to the development of the concept of "sustainable development". It provided the groundwork for the World Commission on Environment and Development (Brundtland Commission 1987) and it led to the creation of numerous institutions for the further definition and promotion of principles of sustainability.

Initial drafts focused on the protection of nature, but later versions were expanded to include both social and economic issues. This brought into focus the three key elements of the strategy; the maintenance of ecological processes, the preservation of genetic diversity, and the sustainable use of species and ecosystems.

The Pakistan NCS was an early attempt to develop a national conservation strategy using participatory action research techniques and in particular, the use of the Search Conference process to bring people together to define long-term goals, to identify constraints and ways to deal with them and to develop consensus on an Action Plan.

The initial process led to the development of a major research and extension program which continues to this day, under the leadership of IUCN Pakistan. Conservation strategies have been developed in each of Pakistan's four provinces and a large number of non-governmental organizations have been developed to implement the strategies. The article also touches briefly on the development of Caring for the Earth, a later version of the WCS, which was produced in time for introduction at the Rio Conference in 1991. It attempted to put forward a new ethic for sustainable living and to enunciate the principles and practices required to achieve global sustainability.

## **1. Background to the World Conservation Strategy**

The International Union for the Conservation of Nature and Natural Resources (The World Conservation Union) was founded in 1948 as the International Union for the Protection of Nature. At the time, it was the only international organization concerned with the broad area of nature protection. None of the global environmental organizations, WWF, Greenpeace, et al, existed at the time and there was little awareness or concern about pollution. There were no government departments responsible for "environmental affairs", nor were any UN agencies concerned about the global environment until UNEP was formed in the 1970s.

IUCN's primary rationale was to strengthen the nature conservation movement by networking to link expert individuals and national organizations and to pool environmental information at the global level on the assumption that if IUCN helped to share the world's knowledge, its national members would work more effectively and nature would benefit. For the complete story of IUCN's progress in this work, the reader should consult *The Green Web* by Martin Holdgate, Earthscan Publications, 1999.

IUCN's most famous products have reflected its focus on scientific knowledge and research. Its Red Data Books are the most reliable statements on endangered species. The Species Survival Commission, with 8000 members, is the only voluntary network of experts on species conservation in the world. The World Commission on Protected Areas brings together over 1000 of the world's leading "Parks People". The Commission on Environmental Law and its training programs has been the cornerstone of the emerging system of environmental laws in the world.

## **2. The World Conservation Strategy**

The World Conservation Strategy, produced in 1980 with the support of UNEP, WWF, UNESCO and FAO, was the first document to link the conservation of nature to the process of resource development for human needs. It first enunciated and defined the concept of "sustainable development", which was later expanded by the World Commission on Environment and Development, the Brundtland Commission, in 1987.

The idea of a World Conservation Strategy seems to have emerged in IUCN about 1976. The United Nations Environment Program (UNEP) Governing Council established itself as the global forum for discussing and resolving world environmental issues. It also established such global organizations as: GEMS, the Global Environmental Monitoring System; IRPTC, the International Registry of Potentially Toxic Chemicals; INFOTERRA, the International Environmental Information System; and IEEEP, the International Environmental Education Program. UNEP also moved into the field of environmental law.

IUCN remained the unique forum for global discussions of the conservation of nature. It also had UNEP as a close collaborator, partner and financial supporter. It was clear that rapid growth in world population would continue for at least 25 more years and that nature would be the loser, unless drastic changes could be made in world opinion and policy. Holdgate quotes two paragraphs from the IUCN Bulletin to show the divide between “protection” and “conservation” within IUCN:

“During this period, the pressure of world population on the environment will grow much more severe. The trend towards greater urbanization, unless it is deliberately reversed, could result in still greater environmental disruption. Pressure on living resources will mount enormously.

As a result the prospects for conservation will be much the poorer. Species diversity will be further reduced and ecosystem integrity most severely undermined. The most pressing economic needs will be shared by still greater numbers of people; and in the face of their just demand for food and jobs, governments will weaken further in their defence of their people’s biological heritage”.

Somehow, the gulf had to be bridged. New forms of “development” had to be found which could take into account the needs, attitudes and knowledge of local people allied with the goal of “devising (new) forms of development that are sensitive to ecological and social diversity”.

“While it may be repugnant for conservationists to divert their precious energies from conservation proper, or to be involved in development at all...unless we are involved much (if not all) that we have achieved in the past and hope to achieve during the coming years, will be destroyed by the efforts to survive of millions of poor and hungry—helped only by biologically prodigal development on the one hand and socially naïve conservation on the other, and therefore not helped at all”. (Editorial Comment IUCN Bulletin, New Series vol.7, no.1, January 1976).

This was the challenge, which led to the formulation of the World Conservation Strategy. The approach was defined by Duncan Poore, Secretary-General of IUCN in 1977:

“The Union is concerned with values more, I would say, even than with science. For science should be the servant, not the master of mankind. Our strategy must be firmly based in realism but it must move ahead with vision. We should be the architects of guided change (call it development if you will)—guided change in the direction of

increasing the well-being of mankind—not only the standard of living but the good life—but (and the but is all important) in such a way that the potential of the biosphere to support this good life is not diminished”. (The Green Web, Martin Holdgate. Earthscan Press, London. P 137).

In the 1970s, a variety of treaties and conventions were developed to promote national and international action. Among these were the UN Convention on the Law of the Sea, the UN Conference on Desertification, the UNESCO/UNEP Intergovernmental Conference on Environmental Education, CITES, the Ramsar Convention, the Migratory Species Convention, the World Heritage Convention and the European Convention for the Conservation of Wildlife and Natural Habitats. In addition, National Conservation Plans were under development in Thailand and environmental legislation was being developed in Indonesia, Jordan, Malawi and Panama. IUCN was a major player in the development of these agreements, but felt that a world strategy was needed and began work on it in the late 1970s.

The first version to reach the public was produced by the IUCN Commission on Education in 1979, when Dr. Al Baez and Julia Marton-Lefevre became Chair and Deputy. The Commission produced an “information booklet on the World Conservation Strategy for decision-makers, a multi-media pack and illustrated glossary for teachers, an environmental education activities handbook and a guidebook to assist young leaders in the formation of wildlife clubs.”(Green Web, p.144).

Dr. David Munro, seconded from Environment Canada in 1977 to become Director-General of IUCN, took an active role in the development of the World Conservation Strategy. In 1976, Duncan Poore, his predecessor, had asked science writer Robert Prescott-Allen to help him prepare the first draft. Prescott-Allen organized a wide variety of workshops and committees, including a formal Advisory Committee involving IUCN, UNEP and WWF.

By 1977-78, Prescott-Allen was fully in charge of the WCS. It was planned to be an evolving document, continually under revision as knowledge advanced. Each draft was circulated to IUCN’s 400 members, to all Commission members and to UNEP, FAO, UNESCO, WWF and other concerned parties. Four panels were set up specifically to comment on the drafts. The Ashkhabad General Assembly in 1978 spent a full day in technical committee, reviewing the second draft.

The focus of the first two drafts was exclusively on the protection of nature, addressing the conservation and sustainable management of major ecosystems and habitats. The African members objected and in view of the crisis in the Sahel, insisted that the Strategy also address water resources and agriculture. It was agreed that the core of the strategy would be ecosystem conservation but that it should be expanded to cover all living resources including forests, agriculture and fisheries. There was also agreement on the need to accommodate UNEP’s increasing sensitivity to development concerns.

In response to this broadened emphasis, Prescott-Allen organized the Strategy around three elements: the maintenance of ecological processes, the preservation of genetic diversity and the sustainable utilization of species and ecosystems—all of which had

been around separately in different sub-disciplines but not put together before. This broadened the usefulness of the framework, but brought it directly into the areas of focus of UNEP, FAO, UNESCO and WWF as well as governments and NGOs including IUCN members.

Two more drafts were produced before agreement could be reached with the three UN partners. Each draft revealed the difficulty of speaking in a strong but balanced way for both conservation and development. UNEP forcefully opposed what it saw as “preservationism”, while others felt that “development” received too much support. Lee Talbot, a former Director General of IUCN commented: “...the first draft was essentially a wildlife conservation textbook, for at that time many conservationists regarded development as the enemy to be opposed and many developers, for their part, regarded conservation as, at best, something to be ignored (or at worst, as an obstacle to progress). However, each draft brought the two sides closer, and involved a process of education. The final draft represents a consensus between the practitioners of conservation and development”. (Green Web, p.152).

The World Conservation Strategy, in just forty pages, coined the term “sustainable development” and argued that living resource conservation is essential for sustainable development. The Foreword was signed by the leaders of IUCN, UNEP and WWF, Mohamed Kassas, Mostafa Tolba and John Loudon. The message anticipated by seven years the World Commission on Environment and Development.

“Human beings, in their quest for economic development and enjoyment of the riches of nature, must come to terms with the reality of resource limitation and the carrying capacity of ecosystems, and must take account of the needs of future generations. This is the message of conservation. For if the object of development is to provide for social and economic welfare, the object of conservation is to ensure Earth’s capacity to sustain development and to support all life.

Earth is the only place in the universe known to sustain life. Yet human activities are progressively reducing the planet’s life-supporting capacity at a time when rising human numbers and consumption are making increasingly heavy demands on it. The combined destructive impacts of a poor majority struggling to stay alive and an affluent minority consuming most of the world’s resources are undermining the very means by which all people can survive and flourish.

Humanity’s relationship with the biosphere (the thin covering of the planet that contains and sustains life) will continue to deteriorate until a new international economic order is achieved, a new environmental ethic adopted, human populations stabilize and sustainable modes of development become the rule rather than the exception. Among the prerequisites for sustainable development is the conservation of living resources.

Development is defined here as: the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life. For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as the short-term advantages and

disadvantages of alternative actions.

Conservation is defined here as: the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration and enhancement of the natural environment. Living resource conservation is specifically concerned with plants, animals and microorganisms and with those non-living elements of the environment on which they depend. Living resources have two important properties, the combination of which distinguishes them from non-living resources; they are renewable if conserved and they are destructible if not.

Conservation, like development, is for people, while development aims to achieve human goals largely through use of the biosphere. Conservation aims to achieve them by ensuring that such use can continue. Conservation's concern for maintenance and sustainability is a rational response to the nature of living things (renewability + destructibility) and also an ethical imperative, expressed in the belief that "we have not inherited the earth from our parents, we have borrowed it from our children".

The broad goals of the WCS are: the maintenance of essential ecological processes and life-support systems, the preservation of genetic diversity and the sustainable utilization of species and ecosystems. Priority requirements are then provided for each area in the form of checklists such as the following, for maintenance of essential ecological processes and life-support systems:

- reserve good cropland for crops;
- manage cropland to high ecological standards;
- ensure that the principal management goal for watershed forest and pastures is protection of the watershed;
- ensure that the principal goal for estuaries, mangrove swamps and other coastal wetlands and shallows critical for fisheries is the maintenance of the processes on which the fisheries depend; and
- control the discharge of pollutants.
- For preservation of genetic diversity, the priority requirements are:
  - prevent the extinction of species.
  - reserve as many varieties as possible of crop plants, forage plants, timber trees, livestock, animals for agriculture and aquaculture, microbes and other domesticated organisms and their wild relatives.
  - ensure that on site preservation programs protect: the wild relatives of economically valuable and other useful plants and animals and their habitats; the habitats of threatened and unique species; unique ecosystems; and representative samples of ecosystem types.
  - determine the size, distribution and management of protected areas on the basis of the needs of the ecosystems and the plant and animal communities they are intended to protect.
- co-ordinate national protected area programs with international ones.

For sustainable utilization, the priority requirements are:

1. Determine the productive capacities of exploited species and ecosystems and ensure that utilization does not exceed these capacities.
2. Adopt conservative management objectives for the utilization of species and ecosystems.
3. Ensure that access to a resource does not exceed the resource's capacity to sustain exploitation.
4. Reduce excessive yields to sustainable levels.
5. Reduce incidental take as much as possible.
6. Equip subsistence communities to utilize resources sustainably.
7. Maintain the habitats of resource species.
8. Regulate international trade in wild animals and plants.
9. Allocate timber concessions with care and manage them to high standards.
10. Limit firewood consumption to sustainable levels.
11. Regulate the stocking of grazing lands so that the long-term productivity of plants and animals can be maintained.
12. Utilize indigenous wild herbivores, alone or in combination with livestock, where the use of domestic stock alone will degrade the land.

In summary:

1. The maintenance of essential ecological processes and life-support systems primarily requires rational planning and allocation of uses and high quality management of those uses.
2. The preservation of genetic diversity primarily requires the timely collection of genetic material and its protection in banks, plantations and so on, in the case of off site preservation, and ecosystem protection in the case of on site preservation.
3. The sustainable utilization of ecosystems and species requires knowledge of the productive capacities of those resources and measures to ensure that utilization does not exceed those capacities. (World Conservation Strategy, IUCN, 1980).

The World Conservation Strategy then sets out seven sets of priorities for national action and six more for international action.

### **2.1. Priorities for National Action**

1. The development of a framework for national and subnational conservation strategies.
2. The integration of conservation and development.
3. Environmental planning and rational use allocation.
4. Legislation and organization to improve the capacity to manage.
5. Training and research to improve the capacity to manage.
6. Build support for conservation through participation and education.
7. Develop a framework for conservation-based rural development. (WCS, Section 8).

### **2.2 Priorities for International Action**

1. Development of laws and assistance for international action.
2. An emphasis on tropical forests and drylands.
3. A global program for the protection of genetic resource areas.
4. Effective management of the global commons.
5. Regional strategies for international river basins and seas.
6. Development of strategies for achieving sustainable development. (WCS, Section 15).

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### Biographical Sketch

**Rodger Schwass** is Professor Emeritus & Senior Scholar, Faculty of Environmental Studies, York University, Toronto, Canada. He has been Dean of the Faculty (1976-1982) and Director of York International (1982-1984). Since 1976 he has worked with Eric Trist and others to adapt search



conferences to environmental and resource management and planning. He has facilitated more than 70 strategic planning/search conferences on environmental and sustainable development issues in Canada, Jamaica, Barbados, Kenya, Tanzania, Pakistan and Indonesia. Most have led to long-term activities aimed at sustainable development. As part of this activity, he worked with IUCN on the Pakistan National Conservation Strategy from 1986 to 1994 and with the Canadian Partner Organization to the Pakistan Environment Program until 2002.

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