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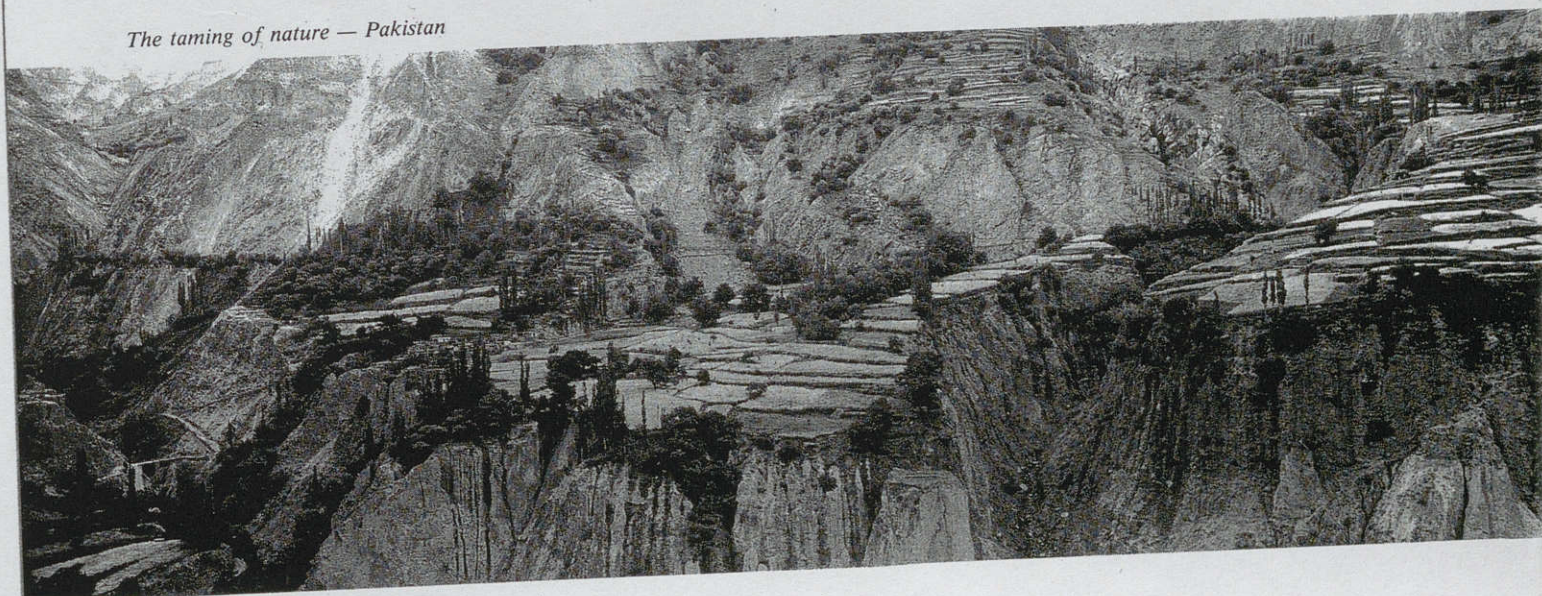
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Credit: Zafar Ahmad

The taming of nature — Pakistan



EDITORIAL

In this special issue, we have sought to introduce a new diversity into the dialectic of IUCN.

We have invited a number of eminent people unfamiliar with IUCN to express their views on present-day nature conservation, on social and economic development, on cooperation between States and on the challenges of the future. And to share with us their individual outlook on the world. In a spirit of dialogue, they seek to remind us of our responsibilities.

In October, we are celebrating our 40th anniversary. We shall be casting a backward glance over the years of struggle, discoveries, frustrations and hope. But our overriding concern is continuity. In the post-forties period, we must continue to nurture solidarity between men and women who are striving to build the future with the riches of the living world.

Only by forging this indispensable interaction between all peoples can we secure a permanent and lasting dignity for mankind by better management of our planet's natural resources.

Pierre Portas



"The Emblem displayed on the first page of this *Bulletin* has been selected from among 171 designs... Should a symbol be sought... A bud perhaps blossoming into the IUPN? Or perhaps a torch, deriving its light from the Union....the essential is that henceforth the simple evocative power of this clever drawing will proclaim the existence of the IUPN to the four corners of the earth."

Extract from Vol. III, No. 1, February 1954 of IUPN Information Bulletin

CHRONICLE OF AN EPOCH

THE ALLIANCE IN JEOPARDY

The conservation of nature is no antediluvian notion. It is a deliberate policy which has been pursued by all people who have managed their society for any length of time. For lack of foresight, civilizations have perished. North Africa in the 11th century, and later Venice and Spain, declined as they depleted their woodlands, the primary source of raw materials for the ships that gave them control of the Mediterranean sea lanes.

Our ancestors internalized nature, which inspired and even forged many beliefs and myths. The Taoist hermits living in the seclusion of their mountains symbolized the sources of life: the trees of Paradise, the tree of life. Taoism is based on the concept of a world in a state of flux, a regenerated world, and stresses harmonious interaction between the body and the Universe.

Greek myths abound in stories of children miraculously saved by wild beasts who fed them. Hermes was the god of shepherds, the spirit who inhabited stones. His son Pan was a hybrid god, half-man, half-animal. And the nymphs were the first divinities of wild nature.

Throughout their long history, the peoples of India have all been fascinated by, and respectful of, animals. Hindus, Buddhists, and Jains attribute equal importance to all forms of life. Mythical birds, monkeys as the allies of gods and men, the cow as the primary source of life, and elephants who bring rain and luck, have inspired some of the finest works of Indian art.

And of course, Adam and Eve were driven from Eden into the wilderness, and there forced to contend with hostile nature which they had to learn to subdue and civilize.

African prayer plumbs the mysterious depths of the soul and its relationship with nature, as revealed in this epiphanic declamation of the masters of Kore, a Bambara initiation society: (extract)

*"You, the first, are the creator of all things;
You have fashioned all creatures and you have spoken;
You have multiplied the beasts of the bush...
You have created the enormous beasts and the tiny fishes and the reptiles..."*

Nature is deeply rooted in the social life of the American Indians. These inhabitants of the New World are profoundly attached to their agriculture, to their land, to maize, to the bison. In their poetic account of Creation, the Navahos narrate that "Rivers began to flow toward the four cardinal points. In the East was a place called Maize and in the West another called the Standing Reed..."

"Just as Nature is the product of a progressive secularization of the Cosmos, God's handiwork, so too is profane man the result of a desacralization of human existence." (Mircea Eliade)

All these people were passionately devoted to their gods, their heroes, and their Creator, and to nature which they associated with them. The intimate relationships between man and nature confer meaning on man's history and existence. We are the heirs of these peoples and nature is a stage we must pass through as we build our future.

Have we lost sight of this alliance with "Mother Nature"? Has nature become a resource that we squander, the mirror of our aesthetic values, or a laboratory where we satisfy our scientific curiosity? Is nature still an oasis of peace?



Corsican deer (*Cervus elaphus corsicanus*)
Credit: WWF/Drawing by Helmut Diller

THE STIRRING OF AWARENESS

Nature was also a breeding ground for laws and restrictions. Before the City of Venice was founded in 726, the tiny State of Venice set up reserves for deer and wild boars on its territory. In 1423, King Ladislas Jagellon of Poland promulgated a law restraining the hunting of wild horses, elks and aurochs. Hunting was banned in the Swiss canton of Glarus from 1569 until the 20th century and a fifth of its territory was placed in reserves and managed according to the medieval principles of land use. In Austria, the idea of nature conservation was present in germinal form in the privileges of the medieval Frankish kings. In France, the



Dr Paul Sarasin (1856 - 1929), first President of the Swiss League for the Protection of Nature (LSPN)
Credit: LSPN

first legal protective measures were enshrined in a Decree of 13 August 1861 concerning the landscaping of the State Forest of Fontainebleau, where a natural reserve had been established in 1853 at the instigation of a group of French painters. In the United States, 1872 saw the creation of special organizations devoted to the protection of nature, and the terms "national parks" and "sanctuaries" were coined. A number of associations for the protection of fauna were founded in the 19th and early 20th centuries: these included the

Deutscher Verein zum Schutz der Vogelwelt in 1875, the British Royal Society for the Protection of Birds in 1889, the Society for the Preservation of the Wild Fauna of the Empire in 1903, and the Permanent Wild Life Protection Fund in the USA in 1913. Other organizations for the protection of nature and particularly for the establishment of reserves were founded, including the Société pour la Protection des Paysages (France) in 1901, the Vereniging to Behoud van Natuurmonumenten in Nederland in 1904, the Ligue Suisse pour la Protection de la Nature in 1909 and the Society for the Promotion of Nature Reserves (UK) in 1912. Famous academies were also founded. These included the Société helvétique des sciences naturelles, inaugurated in 1815, which was instrumental in the creation of two other illustrious institutions: the Swiss League for the Protection of Nature and the Swiss National Park. Following the impetus given by 18th century writers, Alexander von Humboldt (1769-1859) promoted the idea of protection hand in hand with ecological theory. The creation, life, became a natural monument.

Human progress was hampered by the destruction of nature, and from the 19th century on man sought to implement international measures for the protection and management of the environment and plant and animal species.

"His Majesty the Emperor of Austria, King of Bohemia, etc., and Apostolic King of Hungary, acting also on behalf of His Highness the Prince of Liechtenstein, His Majesty the Emperor of Germany, King of Prussia, in the name of the German Empire, His Majesty the King of the Belgians, His Majesty the King of Spain and, in her own name, Her Majesty the Queen..." So run the opening words of the preamble to the International Convention for the Protection of Birds, signed in Paris in 1902.

The new nations considered it their moral duty to posterity to preserve the wild animal and plant world, whose roots are anchored in the collective unconscious. One of the first organized movements was founded in 1868 by German farmers and foresters who were alarmed at the destruction inflicted by insects due to a lack of predators. At the same period (1845), Dr Edward Baldamus, a distinguished ornithologist, proposed to the first Assembly of the German Ornithological Society that animals, and particularly birds, be protected. Initially rejected, his idea was revived in 1868. The international approach to the protection of flora and fauna dates from that period, but was confined mainly to the Chancelleries and to enlightened scientists and amateurs.

THE TWILIGHT OF NATURE

The 20th century marked a rupture in the course of natural history. Disease, poverty, and the other ills that flesh is heir to were compounded by major natural crises and upheavals on a global scale.

During the 19th century, economic problems became an all-engrossing issue. The first industrial revolution radically transformed society,

bringing widespread economic instability in its wake. Alienated from the earth, man was no longer master of what he produced. Society was riven by class struggles. Strikes, redundancies and unemployment were rife. Of the first 60 years of our century, eleven were spent in worldwide conflicts and almost as many in colonial wars. The pace of economic developments was too swift for man to grasp their in-

Acte de Fondation

d'une Commission consultative pour la Protection internationale de la Nature

Article premier.

La Conférence décide la création d'une Commission consultative pour la Protection internationale de la Nature.

Article 2.

La Commission est composée de deux délégués pour chaque Etat ou Colonie autonome; chaque pays pourra confier à un seul délégué les deux voix dont il dispose.

Les membres sont désignés par la Conférence sur la proposition des délégués de chacun des Etats qui y sont représentés.

La désignation des délégués est soumise à l'approbation de leurs Gouvernements respectifs.

Si une proposition n'est pas faite pendant la Conférence, elle peut l'être après la clôture au Conseil fédéral suisse. Les délégués proposés sont considérés comme nommés par la Conférence.

Lorsqu'une vacance se produit, il y est pourvu par les soins du Gouvernement intéressé.

Chaque nouvel Etat adhérent désigne son ou ses délégués.

Article 3.

La Commission est considérée comme constituée dès que les délégués de neuf Etats sont désignés. Elle doit se réunir au moins tous les trois ans. Elle reste en fonctions jusqu'à la réunion d'une nouvelle Conférence.

La réunion d'une nouvelle Conférence sera de droit dès qu'elle sera demandée par la majorité des Etats représentés dans la Commission.

Article 4.

La Commission procède à l'élection de son Président.

La Commission désignera, dans chacune de ses sessions, le lieu de sa prochaine réunion.

La Vice-présidence appartiendra à l'un des représentants du pays où aura lieu la réunion.

Article 5.

Le siège de la Commission est à Bâle, tant qu'il ne sera pas changé par une Conférence nouvelle.

Article 6.

Les attributions de la Commission sont les suivantes :

- 1° la réunion et le classement de toutes les données relatives à la Protection internationale de la Nature et leur publication;
- 2° la propagande pour la Protection internationale de la Nature. L'action de la Commission s'exerce par l'intermédiaire de ses membres.

La correspondance avec le Gouvernement et les Institutions d'un Etat adhérent à la Conférence se fait par l'intermédiaire des membres de la Commission appartenant à cet Etat.

Article 7.

La Commission rédigera son règlement intérieur et déterminera dans chaque cas particulier son mode d'action.

Procès-verbal final

Au moment de procéder à la signature du présent Acte de fondation, les délégués soussignés déclarent qu'il est entendu :

- 1° qu'aucune dépense obligatoire ne résultera pour les Etats de la fondation de la Commission consultative ;
- 2° que l'approbation réservée à l'article 2, alinéa 3, est à l'initiative des délégués; de même les désignations différées. Les soussignés s'emploieront à ce que ces désignations interviennent le plus tôt possible.

Fait à Berne, le 19 novembre 1913.

Les délégués

Allemagne	(Signé) Romberg, Conwentz, von Böhm
Amérique (Etats-Unis)	> Pleasant Slossall
Argentine (République)	> Franco Molina Salas
Autriche	> Georg Binder
Hongrie	> Charles Kádn
Belgique	> J. Massart
Danemark	> Hector F. E. Jungersen
Espagne	> Francisco de Reynoso
France	> Edmond Perrier, Bouvier, Berr de Turique, Lorieux, Mathey
Grande-Bretagne	> N. Charles Rothschild
Italie	> Paulucci de' Calboli
Norvège	> N. Wille
Pays-Bas	> J. Th. Oudemans, Ad. Burdet
Portugal	> Joaquim Pedroso
Russie	> Grégoire Kojewnikow
Suède	> Einar Laennberg
Suisse	> L. Forrer, Paul Sarasin, J. Coaz, U. Meister, Paul-L. Mercanton, Th. Studer

Les secrétaires,
Alfred Bonzon.
S. Brunies.
Jean Roux.

ternal logic, and industrial progress inflicted incalculable damage on natural resources.

In the post-war West, a glimmer of hope was born. This hope had been carefully fostered since the turn of the century by far-sighted naturalists, among them the Swiss Paul Sarasin, the American William Hornaday, P. T. van Tienhoven of the Netherlands and Victor van Straelen of Belgium. Thanks to the vision of these citizens of the world, nature was accorded a place in the plans for the reconstruction of Europe discussed at the Conference in The Hague in May 1948.

This post-war period was marked by a more universal vision of the future accompanied by greater cooperation. With the foundation of the United Nations and its specialized agencies such as Unesco, a new dialogue was initiated.

In the early stages, certain individuals played a crucial role. In 1910, at the Eighth International Zoological Congress in Graz, a provisional task force was set up to study the question of the protection of nature throughout the world. Men of foresight and vision expressed the desire to create a worldwide union for the protection of nature.

The seeds of this idea had been sown in 19th century Europe, at a time when romanticism and rationalism were in ferment. It was also the epoch of the religion of great men: Hugo, Wagner, Renan, Goethe. Nationalist movements in Europe strove for political, economic and cultural unification, and in so doing paved the way for action on a more universal scale. The 19th century bequeathed an immense heritage to the modern world born of blood and suffering. These efforts were accompanied by the famous cry of hope, "Liberty, Equality, Fraternity". In 1989, France will commemorate the bicentenary of the French Revolution, whose ideals and utopias, brainchildren of the European mind, still permeate human thought and activity throughout the world.

As twilight fell on the natural world in the 20th century, the historical significance of these years of fermentation became apparent: years which culminated in a worldwide movement to protect the beauty, diversity and development of nature and to rescue it like a rudderless vessel from shipwreck.

In the fifties, with the awakening of peoples under colonial rule (Bandung Declaration), man's relationship with nature became a topical issue once more. From 1956 on, conservation emerged as a new social link. The concept of protection evolved towards that of conservation, which implies the management of natural resources and therefore the active participation of man -- the destroyer, repairer and beneficiary of the riches of his environment.

Henceforth, the right to self-preservation was inseparably linked with the preservation of nature. The discussion pivoted around man's predominant role in his living environment.

In the twilight, hope dispersed some of the shadows. Hesitantly and somewhat ineffectually, the idea of conservation challenged the choices derived from thinkers like Descartes, Bacon and Newton. Until recently, in fact, human progress had been contingent on the violation of ecological rules and on man's domination of natural forces

which were perceived as obstructive and even antagonistic to prevailing social patterns.

Western man's alienation from his natural environment had thrust him into a worldwide conflict with his vital support. Pragmatically and judiciously, he attempted to make amends and repair the damage. It was in the West that the universal movement for the protection of nature was born.

The reasons for protecting nature were many and varied, reflecting the values of the societies concerned. Aesthetics and science were to play a key role in the anglophone New World, which had already acquired experience in the protection of majestic landscapes and natural monuments. The first national parks were established in the United States (the Yellowstone National Park in 1872), in Australia (1886), in Canada (1887), in New Zealand (1894) and in South Africa (1898). In Europe, the idea of protection and the creation of nature reserves captured the public imagination. The underlying motivation was utilitarian rather than scientific or aesthetic, drawing its inspiration from the romantic view of creation. The social aspect was dominant -- the proponents of the movement were private citizens in need of green belts and open countryside, and the nobility who possessed private hunting preserves. There was a single exception: the Swiss National Park, founded in 1914, was a natural sanctuary devoted to strict protection, scientific research and tourism, thanks to the efforts of Paul Sarasin.

From the outset, basic and often divergent approaches prompted Western countries and their colonies to resort to a common instrument to create "islands of wild nature".

The British formulated a definition of a National Park, which was adopted at international level in 1933, at the London Convention*.

The Swiss Government created a national park while protected areas were set aside in the United Kingdom, The Netherlands, and Germany as a result of private initiatives.

Two schools of thought predominated: one sought to exclude people from sensitive areas, while the other advocated that natural landscapes be made available for use, aesthetic enjoyment and recreation.

* This conference was attended by the Anglo-Egyptian Sudan, Belgium, France, Egypt, Northern Ireland, Portugal, Spain, the Union of South Africa, and the United Kingdom. The Convention provided for nature reserves and national parks to be set up in the co-signatories' territories and laid down principles for controlling the trade in wild animal products.

IUCN: A SUCCESS STORY

Georges-Louis Leclerc de Buffon, the father of natural history, died 200 years ago. It was he who named and classified the members of the plant and animal kingdoms. But this knowledge was exploited exclusively in the interests of Western man. Later, the romantic movement wept on nature's comforting shoulder, elevating it to the rank of an immortal, in whom man could confide his pent-up chagrin, solitude and dreams. Nature became the refuge of wounded man. This quasi-divine, sentimental alliance was to bring the human being closer to his environment, the very environment he was tired of fighting to subdue!

The precursors of the world movement for the protection of nature, who emerged from the cradle of reason, science and dreams, were preoccupied by the deep lesions in the alliance between man and nature. IUCN was born of this profound concern engendered by the accelerating wholesale destruction of the world's natural heritage.

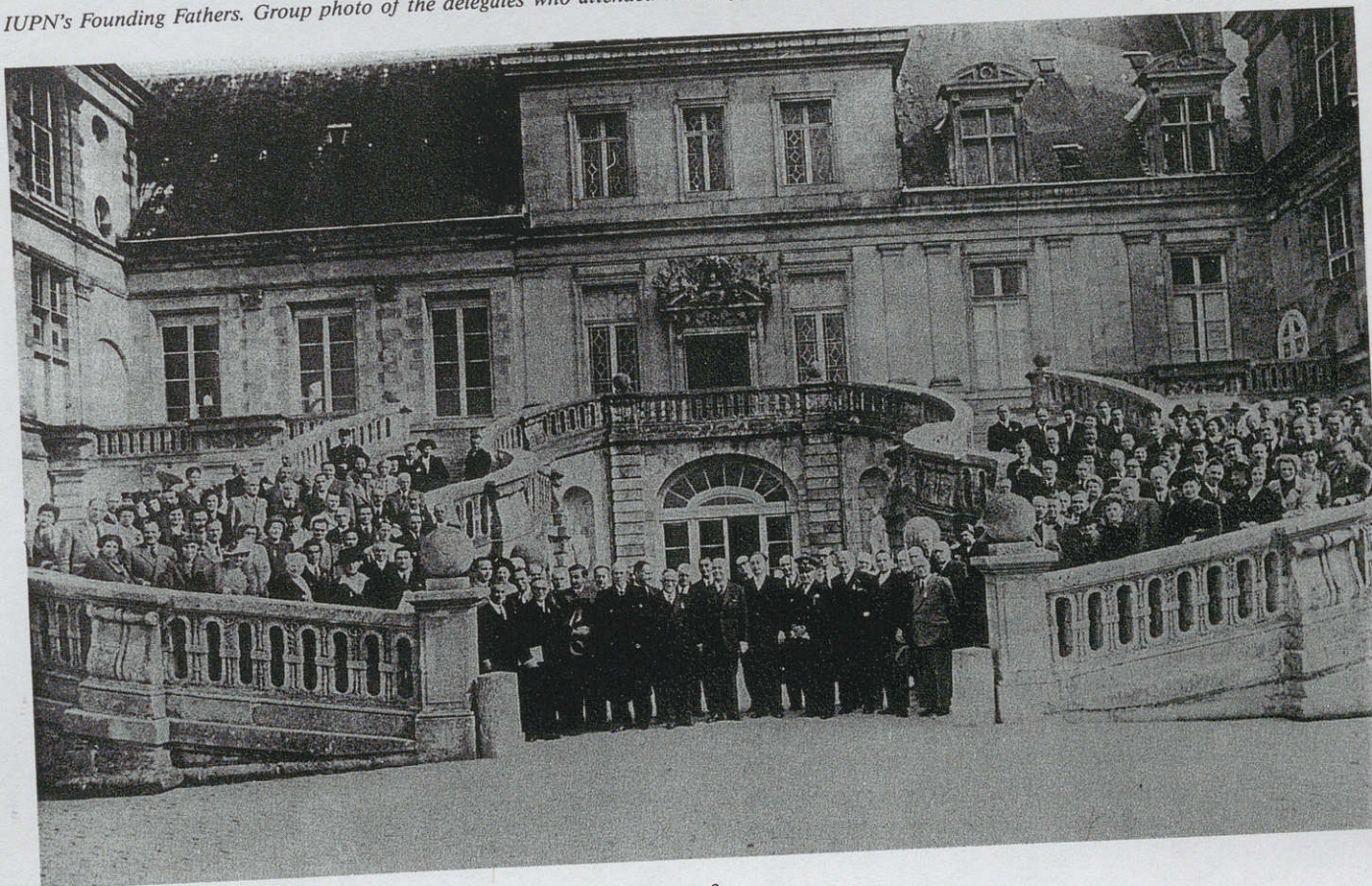
GENESIS

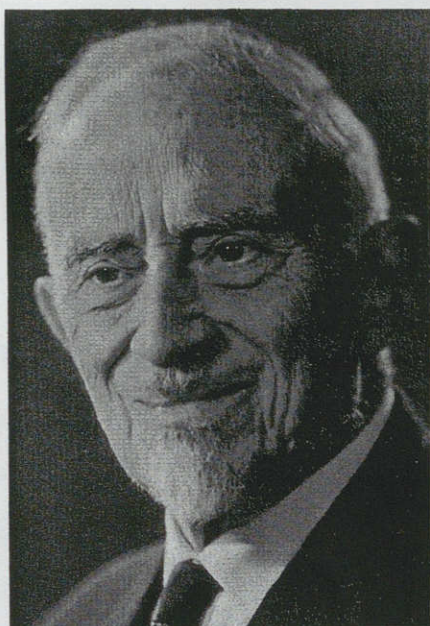
IUCN arose from "the conviction that the efforts of all will only be crowned with success if scattered forces unite in purposeful collaboration, in an immense common action for the defence of a magnificent ideal" (Dr. Ch. J. Bernard, first IUCN President). This venture, undertaken with enthusiasm and a commitment to humanistic ideals, began in a world full of adversity. Notwithstanding the clairvoyance of our founders and the Herculean efforts of their successors, we must honestly admit that much remains to be done.

However, our history is also a pioneering exploit. It took courage to want to become what we are.

It was therefore at an epoch least conducive to human solidarity that people concerned for the future of both humanity and the environment decided to found a Union capable of mobilizing civil and governmental forces at an international level in order to protect and manage the Earth's natural heritage more effectively.

*IUPN's Founding Fathers. Group photo of the delegates who attended the conference at the Château of Fontainebleau, taken on 5 October 1948.
Credit: IUPN/IUCN*





Dr Charles Jean Bernard, founding President and honorary President of IUPN/IUCN. Born in Geneva on 5 December 1876, died in Amsterdam on 29 July 1967.
Credit: IUPN/IUCN.

Salzburg 1953. Left to right: Dr Ch. J. Bernard, first IUPN President (1948 to 1954) and President of the Swiss League for the Protection of Nature. Mrs Marguerite Caram, Secretary to J.-P. Harroy, and later Editor of the IUPN/IUCN Bulletin (1953 to 1960). Mrs Caram also held office as Assistant Secretary General. Prof. Jean-Paul Harroy, first Secretary General of IUPN (1948 to 1955). Prof. Roger Heim, IUPN/IUCN President (1954 to 1958), member of the Institute of France and Director of the National Museum of Natural History in Paris.

Credit: IUPN/IUCN



TRANSFORMATION

Far-sightedness, confidence, courage, tenacity and audacity were the hallmarks of IUCN's early years, during which it was known as the International Union for the Protection of Nature. The doctrine of the protection of nature was still dominant but the diversity of the world made it necessary to reorganize knowledge. Human ecology made its debut, although the older tools such as the promulgation of regulations and the creation of nature reserves and national parks for the safeguarding of species of flora and fauna for purely scientific or aesthetic reasons were not abandoned. Between 1956 and 1969, IUCN consolidated its foundations and its

experience. It became a forum where the five continents met and spokesmen for States and for the general public joined forces. There was no interruption in the sixties and seventies, and yet the paradigm of conservation, flora, fauna and its biotope was transformed. The change was more than semantic. The chain of cause and effect was broken. In 1961, the IUCN headquarters were transferred from Brussels to Morges in Switzerland. New clothes, new people, new places. Its peers, who were concerned by the new dimensions of progress, growth and the impact of technology, refocused IUCN's activity in the light of prevailing economic and social conditions.



1968: IUCN/Unesco: A long standing friendship. Left to right: Prof. Reino Kalliola, Finland; Mr. H. Flon, France; Dr Harold J. Coolidge, United States (IUCN President); Dr. F. Fraser Darling, United Kingdom; Mr Johannes Goudswaard, The Netherlands; and Prof. J.-P. Harroy, Belgium. Credit: Unesco.

MATURITY

"It is to be hoped that Unesco, thanks to the influence it wields, can persuade its members -- that is to say national Governments -- that conservation of nature and natural resources is not something of interest to a small circle of specialists but a vital necessity for the maintenance of future peace and prosperity of the world as a whole. In fulfilling this task it can count on the cooperation of IUCN which, through its non-governmental status, is in the position to initiate and undertake the necessary complementary action."

J.-G. Baer, University of Neuchâtel, Honorary Member and former President of IUCN, addressing the 9th General Assembly, Lucerne 1966, in honour of Unesco's 20th Anniversary.

In the seventies, IUCN was equipped with more efficient administrative structures. This enabled it to consolidate and diversify its scientific activities and carry out field programmes, so that it could be more deeply involved in action on the ground and more closely in touch with realities.

The intense collaboration, constantly reinforced, between government officials, members of the scientific world and associations and other members of IUCN helped it to withstand the forces of disintegration in a world increasingly dominated by self-interest. The universal scope of the problems and solutions was aggravated by rampant nationalism. The price to be paid for halting and reversing the degradation of the natural world was astronomical while the ecological debt was escalating to dangerous levels.

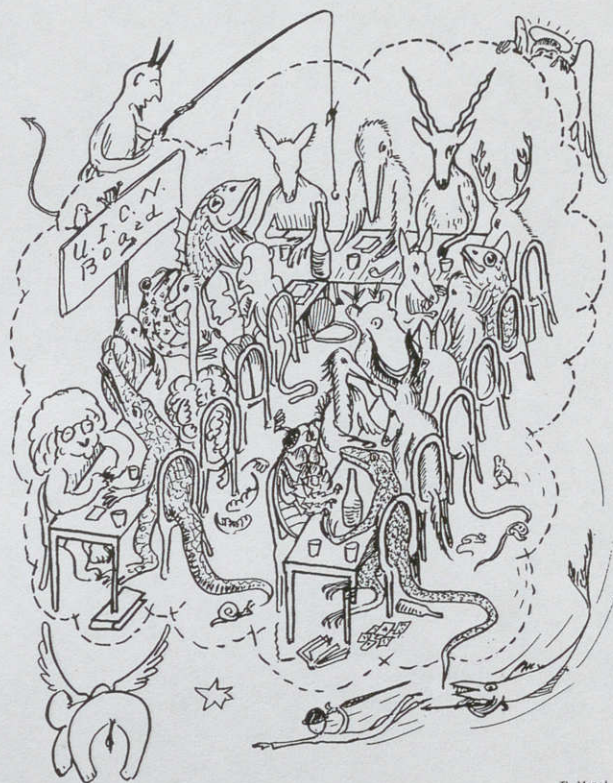
IUCN reached adulthood at a time of worldwide financial, social and economic crises and its footsteps were dogged by a chronic lack of funds. But that did not hamper the in-depth work of the formal and informal networks set up by the Union at its inception. Alert to the importance of the issues at stake, the scientific members provided the crucial input. They all realized that the richness of the living world is our resource for the future and if we are to safeguard this irreplaceable and extremely vulnerable asset we must preserve its biological diversity. We must spare no efforts to halt the impoverishment of the biological world, or it will be too late.

But it was necessary to act realistically, to be pragmatic, and to search for a constructive synthesis. Aided by its partners, IUCN began preparation of the World Conservation Strategy. Published in 1980, this seminal document has made a profound and lasting impact on the world of conservation. In substance, the World Conservation Strategy demonstrates that, on the one hand, an assured availability of natural resources guaranteed by conservation is a prerequisite for on-going socio-economic development. Conservation, on the other hand, is dependent on steady and prosperous development which provides people with alternatives in the sustainable use of natural resources.

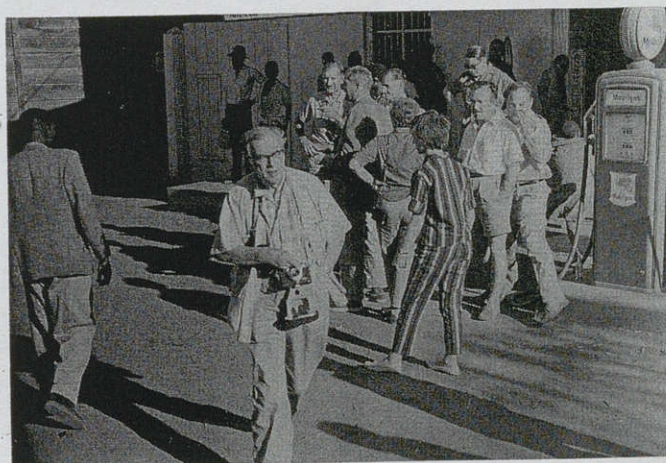
The most striking feature of the Union's work is its renewed confidence in man despite his destructiveness. This is why the concepts of steady development and sustainability do not necessarily entail regression in human development, but rather a readaptation of economic growth and a redefinition of social progress in closer harmony with ecological imperatives.

Drawing by Theodore Monod, Professor at the National Museum of Natural History in Paris, who made a significant contribution to the work of IUPN and later naturalists of the 20th century. Credit: IUCN. A man of immense erudition, Theodore Monod is one of the last great.

LE CONSEIL EXÉCUTIF DE L'UICN EN 1965



At the 11th International Congress of the World Wildlife Fund, held in London in November 1970, a gold medal was presented to Sir Julian Huxley. During the ceremony, Huxley gave a brief account of his life's work. "But my greatest source of pride... is to have helped create IUCN -- in the teeth of considerable opposition, I must say -- when I was Director of Unesco."



Symposium on the conservation of nature and natural resources in modern African states organized by IUCN and the CCTA under the auspices of Unesco and FAO (Arusha, Tanganyika, September 1961). Sir Julian Huxley during an excursion. Credit: A. Gille

TOMORROW

Man cannot attain the quality of life to which he aspires in an environment in a state of perpetual degradation. Man must enrich the earth. He must face up to the realities of a future in which the overexploitation of natural resources is the most pernicious threat to his survival, particularly when this voracity is accompanied by large-scale modifications in climatic systems.

Consuming less with greater care, and managing the diversity of the living world assiduously are not synonymous with a hypothetical return to man's archaic past. Rather these mean laying the foundations of a new, enlightened code of ethics.

Our diversity enables us to listen to the world and to act globally. But the challenge demands even greater solidarity and support if we are to accomplish our task. It is of the utmost urgency to mobilize all civil, economic and governmental forces and our 40th Anniversary should precipitate greater solidarity.

Three radical changes characterized IUCN's conception, birth and first 40 years: profound transformations rather than evolution reflected the great upheavals in human societies. The worldwide movement for the protection of nature that emerged in the early 1900s was the outcome of a rupture between the waning 19th century and the turmoil of the 20th century. That was the first change. It was a transnational movement that filled a space not yet coveted by the nation-states, who were bent on resolving their problems of identity and territorial integrity. It reflected the determination to preserve nature from the destructive behaviour of man.

"All of us, together, vigilant and dedicated, with God's continuing guidance and the collective determination of all nations, can ensure that the races and religions of the world shall live at peace with one another, in harmony with their common environment. If we fail in this endeavour, future generations may be forced to exist like those hunter-gatherers of long ago. But this time round there may be nothing left for them to hunt or gather."
(Qaboos bin Said, Sultan of Oman 1988)*

The foundation of IUCN was by no means fortuitous. It was the culmination of a slow maturation in the conscious which had sublimated the wars and social and industrial upheavals that had ravaged Europe but which had also been profoundly disturbed by the spiralling deterioration in the physical and spiritual bonds between man and

nature. The crisis of awareness forced the intelligentsia to become organized and to draw up a blueprint for action. The IUPN of 1948 was in fact only a stage in the indomitable campaign of a few personalities who since 1910 had been urging, through official channels, that an international body for the protection of nature be created.

"International" was indeed the key word. The awakening nation-states sensed the need to transcend their frontiers, to appeal to the solidarity of mankind and of the world, and to gather together those national institutions that had been created since the mid-19th century, for only their joint efforts could provide the necessary drive to confront effectively the problems that lay ahead.

"... In many developing countries... growth, on the whole, is hampered by the low prices of raw materials, protectionism, the growing burden of debt, and the reduction of aid to development. And so, on this happy occasion, may I appeal to the peoples of the world to harmonize their efforts to practise tolerance, so that they may live at peace with nature and establish nature in an ordered and equitable world, for the benefit of present and future generations."

(His Excellency Phoumi Vongvichit, interim President of the People's Democratic Republic of Laos)*

Translated from French

The second radical change occurred shortly after the foundation of IUPN. It was sanctioned by a symbolic gesture in 1956, when the word "protection" in its title was replaced by "conservation". And so IUPN became IUCN. The reasons seemed so obvious to the leaders of that time that today there is a dearth of information about this particular transformation of the Union. The transition took place very smoothly. In 1956, however, things could have been very different. Thirty years on, it is hard to assess the import of this change of direction. Replacing the word "protection" by "conservation" was tantamount to modifying the perception of man's role and relation to nature. Man the protector assumes the role of custodian of the treasures of nature and preserves his natural heritage from the ignorance or appetites of other men. He detaches man from nature. As a conserver, he admits that nature can and should be disrupted for the benefit of human society to ensure its development. But this exploitation should be carried out within reasonable limits which permit the renewal of natural resources. In this context, nature's role is utilitarian. It must be subservient to man's project, satisfy aesthetic criteria and provide a peaceful setting within which useful and harmful plants and animals cohabit -- those we want to live with and those we don't.

* Extracts from messages received by IUCN on the occasion of its 40th anniversary)

Man chooses what he believes to be essential, he introduces a choice so that he can manage his vital support more effectively. Yet too often Western societies do not listen to the lessons of the past.

May 1968 dealt a powerful blow to prejudices which took root after World War II. The Hippies shook moral certainties in the West by introducing a space for gratuitous pleasure modelled on nature, a space that the warmongering or rapacious spirit could not exploit. This receptiveness to oriental influences helped undermine the arrogance of *Homo economicus*. In an outburst of generosity, youth pushed back the frontiers of our mind. The immediate outcome was the third radical change, whose roots are deeply embedded in the distant past. The world of tomorrow is dangerous, hostile, and full of pitfalls. The trap closes on the man who attempts to embrace nature too tightly. Nature stifles him. Man emerging from the formidable crucible of Western civilization is slowly rediscovering that nature is something outside himself. It is a living body where he is not entitled to exercise his prerogative of life and death. Thus it is increasingly apparent that there is a need for a code of ethics, for a shared responsibility, an explicit recognition, a spiritual need for man to communicate with all other forms of life on earth and to break out of his human loneliness so that the world, where he lives as a guest, can permeate him more completely.

*"God has created human beings. He placed Adam and his progeny on earth to enjoy the boon of life. The Islamic religion prescribed the preservation of the natural resources on earth, tilling the soil and renewal of its resources so the future generations will reap what we sow." (King Fahd Bin Abdul Aziz Al Saud, Kingdom of Saudi Arabia, Riyadh, 7 Rajab 1408)**

Tomorrow, will man be able to reconcile this inescapable reciprocity, this double challenge, by making the best use of the renewable riches of nature for his benefit and that of his descendants, while respecting or caring for all forms of life for what they are and safeguarding, as far as possible, their right to survival?

"Unfortunately, Senegal belongs to the long list of 'countries threatened by desertification' and the combat we are waging in this field is an omni-present reality for me."
(Abdou Diouf, President of the Republic of Senegal, February 1988)*

Translated from French

IUCN is the same age as the "Universal Declaration of Human Rights" (1948), which affirms that "everyone has the right to life, liberty and security of person" (Article 3). To safeguard these rights, it is imperative that man's "ecological rights" be promoted, for man is responsible for his future.

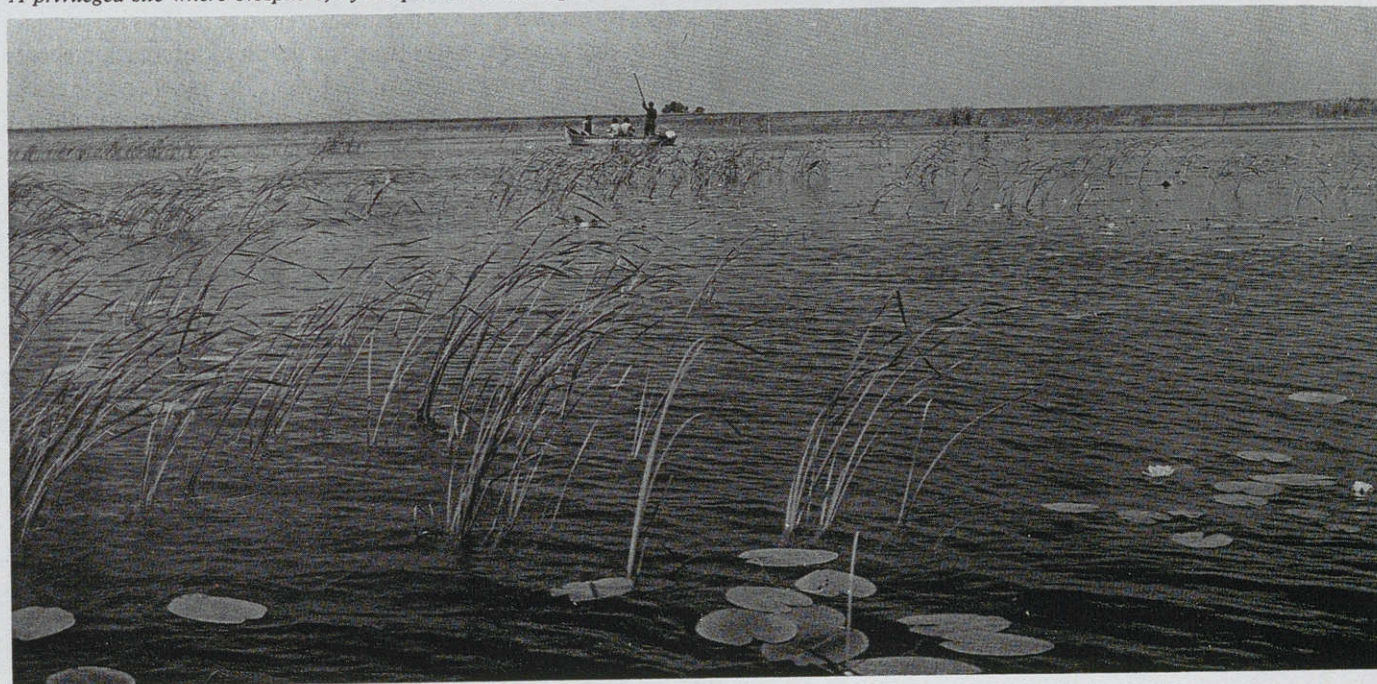
The international movement for the protection of nature has not perished. Its attitude and language, which stemmed from the "man versus nature" dialectic and later the "development-conservation" rhetoric, have become more sophisticated. The problems and failures have taught man a valuable lesson in realism and compromise. Nevertheless, this movement is still highly vulnerable. Certain of its member institutions are ageing and its messages, though true, go unheeded, like those of Cassandra. The challenge is to revitalize this movement, to extend it, and to infuse it with fresh vigour so that it will ultimately occupy its rightful place in the world arena.

Pierre Portas

** Extracts from messages received by IUCN on the occasion of its 40th anniversary)*

A privileged site where biosphere, hydrosphere and atmosphere meet - the Danube delta, Rumania

Credit: WWF/Dr M. Leisk



HISTORIC LANDMARKS (1885-1987)

By way of preamble, a few extracts from the Foreword to the First International Congress for the Protection of Nature (Fauna and Flora, Natural Sites and Monuments), held in Paris from 31 May to 2 June 1923):

"For a long time, the need to protect the beauty and riches of nature from man's ever-increasing depredation had been evident to those who perceived its long-term consequences and to those who were simply distressed by the destruction already accomplished. This led, in the past, to a number of judicious individual initiatives for the establishment of reserves on large private estates. It also led, from the last quarter of the nineteenth century on, to the foundation of regional and national protection societies. One of the most famous of these is now actively committed to the furtherance of conservation in the USA.

For many years, however, a consensus between governments on this issue was sadly lacking. This was all the more regrettable in that numerous species of marine animals and migratory birds, and many birds of plumage and fur-bearing mammals or other animals which were the source of a lucrative worldwide trade, could only be saved from extinction by international agreements. Countries who lagged behind in the protection of fauna, flora, soils or sites had to be encouraged to emulate the example of the more progressive nations.

The earliest of these events took place twenty years ago: the *Second Congrès international d'Art public*, held at the *Congrès de l'Association littéraire et artistique internationale*, in September 1905 in Liège. A motion by Mr Raoul de Clermont 'that the necessary steps be taken to create national parks for the purpose of saving indigenous animals, plants and minerals from destruction' was adopted.

The idea was taken a stage further in August 1909 at the *Congrès international pour la Protection des Paysages*. In a report on the 'Protection de la Faune et de la Flore en relation avec les Paysages', Mr Louis Ternier supported Mr de Clermont by proposing the conservation of certain rare animals, such as the European bison, the elk, the ibex, the beaver, the wood grouse, the bearded vulture, the golden eagle and several other species on the verge of extinction.

At a later *Congrès de l'Association littéraire et artistique internationale*, held in September 1910 in Luxemburg, Mr de Clermont moved a motion of broader scope to the effect 'that pursuant to the proposal of Mr President Roosevelt an International Conference be held at The Hague with a view to the unification, as far as possible, of the legislation on "natural monuments" of artistic, scientific, historical or legendary interest, and that an international federation of all societies for the preservation of riches of artistic or natural value or regional interest be set up.' In this way, States were encouraged to harmonize legislation and coordination of private initiatives was fostered.

The goal was explicitly formulated at the Congress of the same Association held in Paris in 1911, where Mr de Clermont submitted a draft diplomatic convention for the creation of an international bureau for the protection of regional art and for the protection of nature.

And the Congress the Association convened in 1913 at Scheveningen (The Hague) adopted a motion by Mr de Clermont urging the creation of a standing international Commission and an international Bureau or Office which would serve as a clearing house for documents and information concerning the protection of natural sites and monuments.

Meanwhile, at the Eighth International Zoological Congress, which met in Graz in August 1910, Dr Paul Sarasin of Basel had proposed that an international commission for the worldwide protection of nature be set up. At the instigation of the Swiss Federal Government, an International Conference for the Protection of Nature was held in Bern on 17 November 1913.

The Conference set up a standing consultative Commission for the Protection of Nature whose headquarters were in Basel, and Dr Paul Sarasin was appointed President. The following year, the Commission published a fine volume containing the reports and discussions of 1913, and until its demise achieved very valuable practical results."

(The Arusha Manifesto) "The survival of our wildlife is a matter of grave concern to all of us in Africa. These wild creatures amid the wild places they inhabit are not only important as a source of wonder and inspiration but are an integral part of our natural resources and of our future livelihood and well-being.

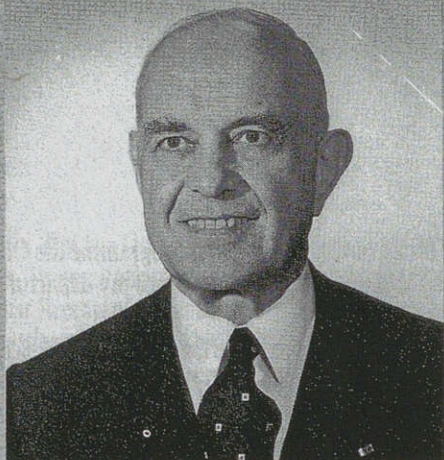
In accepting the trusteeship of our wildlife we solemnly declare that we will do everything in our power to make sure that our children's grandchildren will be able to enjoy this rich and precious inheritance.

The conservation of wildlife and wild places calls for specialist knowledge, trained manpower and money and we look to other nations to cooperate in this important task -- the success or failure of which not only affects the Continent of Africa but the rest of the world as well."

J.K. Nyerere, Prime Minister, A.S. Fundikira, Minister Legal Affairs, T.S. Tewa, Minister Lands and Surveys (September 1961, Tanganyika)

- 1885 Convention on Salmon Fishing in the Rhine, Berlin.
- 1895 International Conference on the Protection of Birds held in Paris.
- 1900 Conference on the Protection of African Mammals, London.
- 1902 International Conference on the Protection of Birds held in Paris.
- 1909 President Roosevelt convenes a world conference at The Hague, 6 January, where 45 nations discuss the best means of protecting global natural energy resources and draw up an inventory of the natural resources vital to the economy.
- First International Congress for the Protection of Landscapes, Paris, 17-20 October.
- 1910 Fifth International Ornithological Congress meets in Berlin in June; decision to establish a permanent organization concerned with bird protection.

- Eighth International Zoological Congress held in Graz: establishment of an interim committee to examine the question of the protection of nature on a global scale.
- 1913 As a result of the Graz Congress and on the initiative of the Federal Government of Switzerland, an International Conference for the Protection of Nature is held in Berne, 17-19 November, and a Consultative Commission for the International Protection of Nature with Headquarters in Basel is created; the Convention is signed by 19 countries.
- 1922 International Council for Bird Preservation (ICBP) established in London.
- 1923 Meeting in Paris of the International Non-Governmental Congress for the Protection of Nature with the intention of re-constituting the previously-mentioned Commission (1913). The outcome was unsuccessful in view of prevailing international tensions.
- 1929 Establishment of the International Office for the Protection of Nature with Headquarters in Brussels. The Office would be incorporated later into IUPN.
- 1933 London Convention Relative to the Preservation of Fauna and Flora in the Natural State; this Conference was to have an enormous impact on the future of conservation in Africa.
- 1942 London Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.
- 1946 International Convention for the Regulation of Whaling.
- 1946-7 Serious efforts made by the Swiss League for the Protection of Nature, founded in 1909, to establish, with the support of the recently-created Unesco, an international organization for the protection of nature; Conferences at Basel (1946) and Brunnen (1947) gave rise to the provisional establishment of the International Union for the Protection of Nature.
- 1948 Conference convened in Fontainebleau (France) during which the International Union for the Protection of Nature (IUPN) is constituted on the 5 October, under the auspices of Unesco. France is the Host Country; the 130 delegates present representing 18 governments, 108 institutions and associations, and 7 international organizations.
- 1949 Conference at Lake Success (USA). Unesco-IUPN organize an International Technical Conference on the Protection of Nature, held in conjunction with a Conference of the United Nations Scientific Conference on the Conservation and Utilization of Resources (UNSCCUR).
- 1953 First issue of the IUPN *Bulletin*.
- 1954 Paris, International Convention for the Protection of Birds and the London International Convention for the Prevention of Pollution of the Sea by Oil.
- 1956 At the General Assembly held in Edinburgh, IUPN becomes IUCN -- the International Union for *Conservation* of Nature and Natural Resources.
- 1959 Resolution 810 (XXXI) of the United Nations Economic and Social Council which establishes a United Nations List of National Parks and Equivalent Reserves; at the request of the Secretary General IUCN undertakes to prepare this List.
- 1960 At the General Assembly held in Warsaw, a decision is taken to transfer the Headquarters from Belgium to Switzerland.
- 1961 Morges Manifesto signed by 16 eminent personalities from the world of science and business results in the creation of the World Wildlife Fund (WWF) now known as the World Wide Fund for Nature.
- 1966 IUCN focus on environmental problems in the West (pollution etc.); General Assembly held in Lucerne, Switzerland.
- 1968 Signature by Heads of State of member countries of OAU (Organization of African Unity) of the African Convention on the Conservation of Nature and Natural Resources. Intergovernmental Conference of Experts on the Scientific Basis for the Rational Utilization and the Conservation of Resources of the Biosphere organized by Unesco in Paris (4-13 September).
- 1969 Tenth General Assembly of IUCN in New Delhi, India. Profound shift in emphasis in IUCN's activities, priority being given to addressing the basic causes of conservation problems -- prevention in addition to cure.
- 1971 Meeting in Founex, Switzerland, in June leading to the publication of "Development and Environment: Report and Working Papers of a Panel of Experts Convened by the Secretary-General of the United Nations Conference on the Human Environment".
- 1972 United Nations Conference on the Human Environment (Stockholm, 5-16 June) mobilizing Governments and having a major impact on the relationship between man and his environment leads to the establishment of UNEP (United Nations Environment Programme) and to numerous Ministries of the Environment. Adoption by the General Assembly of Unesco of the Convention Concerning the Protection of the World Cultural and Natural Heritage.
- 1974 Creation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington. First World Conference on Population at Bucharest, Romania. Cocoyoc Declaration adopted jointly by UNEP and UNCTAD on Resource Utilization, the Environment and Development Strategies held in Mexico in October.
- 1975 Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar) comes into force.
- 1977 First Intergovernmental Conference on Environmental Education, Tbilisi, USSR. United Nations Conference on Desertification organized by UNEP.
- 1980 A peaceful revolution -- publication of the World Conservation Strategy (IUCN, WWF, UNEP in collaboration with Unesco and FAO). The Global 2000 Report to the President: Entering the Twenty-First Century (USA).
- 1982 Adoption by the UN General Assembly of the World Charter for Nature prepared with the assistance of IUCN (28 October).
- 1987 The Brundtland Report *Our Common Future* published by the World Commission on Environment and Development (April). This report underlines the consensus on ecological crisis facing the world and the need to integrate environment and development.



Homage to Jean-Paul Harroy

The international nature conservation movement is deeply indebted to Jean-Paul Harroy, precursor and visionary, whose constant concern between 1948 and 1955 was to prevent the demise of the fledgling IUPN. A citizen of Belgium, J.-P. Harroy has made a signal contribution to the conservation of nature in the field, in the corridors of power, and in academic circles. As President of the IUCN International Commission on National Parks from 1966 to 1972 (Vice-President from 1962 to 1966), one of his most notable achievements on the international scene was to win recognition of national parks and equivalent reserves. He also launched the Union on a crusade to save these protected areas from annihilation during the difficult decolonization era.

Few men have had the privilege of being instrumental in founding one of the most influential worldwide movements and infusing it with courage, tenacity, strength, intelligence and foresight.

J.-P. Harroy was Governor then Résident Général of Ruanda-Urundi from 1955 to 1962. He has also held office as Curator of the Albert and Garamba National Parks (in present-day Zaire), Secretary General of the Institute for National Parks of the Belgian Congo, Secretary General of the Institute for Scientific Research in Central Africa, and Director of the International Office for the Protection of Nature. Since 1949, he has been a professor at the Free University of Brussels, and has lectured there full-time since 1963. In 1979, he was granted the title of Professor Emeritus. Between 1963 and 1965, he presided over the Council of Europe's first Expert Commission for the Protection of the Environment.

He has authored numerous books and articles, including a 550-page work, *Afrique, Terre qui meurt, la dégradation des sols africains sous l'influence de la colonisation*, published in 1944. In his writings, he brings a breadth of vision to the questions of the threats posed by the swift destruction of the world's natural heritage and of the problems stemming from population growth and types of development which are incompatible with the dignity of man and respect for nature.

J.-P. Harroy insists that he could never have sustained his dedicated zeal for more than half a century without the unfailing support of his wife who, in all his undertakings, has been his constant help and companion.

Pierre Portas

THE EARLY YEARS

Jean-Paul HARROY

Secretary General of the Union from 1948 to 1955 and President of its International Commission on National Parks from 1966 to 1972

In 1948, I was appointed Secretary General of the Institute for Scientific Research in Central Africa (IRSAC) after 13 years as Director of the Institute of National Parks of the Belgian Congo (IPNCB) in Brussels and several years in Africa as Curator of the Albert National Park (Kivu, Belgian Congo) and later of Garamba National Park (Uele).

As the result of a certain set of circumstances, at the Fontainebleau Conference (October 1948) at which the Union was founded, the candidate presumptive for the post of Director of the new institution had to be replaced at the last minute. I was present, as the fifteenth member of the Belgian delegation. How and why did the choice devolve on me? Could it be that, in addition to my experience of tropical national parks, I had already published *Protégeons la Nature, elle nous le rendra* in 1946 and two years previously my (controversial) *Afrique, Terre qui meurt, la dégradation des sols africains sous l'influence de la colonisation*? Whatever the reason, on 5 October 1948, I was elected Secretary General of the International Union for the Protection of Nature. At the same time, I became Director of the International Office for Protection of Nature, which had been set up in 1929 in Brussels by the great Dutch precursor, P. G. van Tienhoven. I was well acquainted with this Office -- its Headquarters were in the same premises as the Institute of National Parks of the Belgian Congo (IPNCB). My mandate was to incorporate it into IUCN, which as a result would inherit its valuable library.

The laurels for the physical birth of IUPN are shared by the Swiss League for the Protection of Nature, which had organized two preliminary conferences at Basel and Brunnen (1946, 1947), the Government of France, which sponsored the Fontainebleau Conference, and Unesco, still in its infancy, which lent its patronage to the Union and supplied some of the vital 'bread and butter money' for its first months of activity.

In recognition of the important role played by the Swiss League, its President, Dr Charles Bernard, was appointed President of IUPN, a post he held until 1954. France also supported the Union in its early stages, in particular in the person of Professor Roger Heim, who

was elected President at the Copenhagen Assembly in 1954. Finally, Sir Julian Huxley, then Director General of Unesco, took a keen personal interest in the Union's first steps, provided financial assistance, and attended some of the first meetings of the newly-appointed IUPN Executive Council whose members included another future President and pillar of the Union, Harold Coolidge (USA). It was at these meetings that the first action programme of our young institution was drawn up.

If we are to make an accurate assessment of the first lines of action that the Union laid down and then strove to follow from the outset, we need to situate ourselves in the context of the time.

Prior to 1940, very few people were aware of the need to 'protect nature'. Most were naturalists located in Europe and North America, who had little contact with each other, who were concerned mainly with the extinction of species, and who, by and large, had no real political influence. One of the rare exceptions was the London Convention Relative to the Preservation of Fauna and Flora in the Natural State of 1933. This was already a governmental instrument at a period when most of the African continent was still under colonial government, and provided an initial boost to the conservation of big game and the somewhat loosely coordinated proliferation of large national parks. At the international level, an idea put forward by Switzerland in 1914 and refurbished by the Soviets (Lenin, and the zapovedniks) in 1916 and the Belgians in the Congo in 1925, was consolidated, namely the management of these national parks in accordance with scientific principles that were occasionally referred to at that time as 'ecological'.

Between 1940 and Fontainebleau, ideas had taken root. The danger of waste and misuse of natural resources was becoming increasingly apparent. A desire to unite in order to comprehend and combat this danger more effectively gradually emerged. At the regional level, it culminated in the first major conferences: Denver (interAmerican) and Honolulu (Pacific) in 1948. And at the planetary level, this drive took tangible form simultaneously in the above-mentioned negotiations that led to the foundation of IUPN and in the United Nations Scientific Conference on Conservation and Utilization of Natural Resources (UNSCCUR), convened by the United Nations at Lake Success in 1949.

It is interesting to note that the UN was already emphasising the rational utilization of renewable natural resources while the founders of the Union went no farther than the notion of IUPN, where P stood for Protection. Until my departure for Africa in 1955 — I resigned to become Governor of Ruanda Urundi — I noticed, in my capacity as Secretary General of the Union, that this "tardigrade" appellation, came under constant fire. It was abolished the following year in 1956 at Edinburgh, where IUPN was officially rechristened IUCN, the International Union for Conservation of Nature and Natural Resources.

Today the question is often asked: what were the primary objectives of IUCN's founders following its foundation? Here, in a nutshell,

are the broad outlines of the first programme the Council drew up in 1948 and asked me to implement until my departure in 1955:

- 1) First and foremost, to make the Union known, accepted, esteemed, and officially recognized, until the recommendations solemnly voted in Assembly by the Union finally carried weight with national and international authorities.
- 2) To weld the tiny embryonic nucleus of European and American naturalists already converted to conservation into a powerful, constantly expanding, worldwide network (with special emphasis on the Third World) of 'conservationists' (which was already a catchword in English) from all walks of life: politicians, economists, civil servants, pioneer ecologists, field workers, lawyers, directors of NGOs, and so on, who knew one another personally, who corresponded with one another, who exchanged documents, and who helped one another.
- 3) In so far as the Union's meagre resources permitted initially, and while constantly striving to increase them, to start promoting at national level, and particularly in the Third world,
 - information and education of the public and authorities;
 - local actions on behalf of conservation, particularly through legislation, administration and voluntary work;
 - coordinated ecological research of every kind, especially into identification and control of processes known to be regressive, which were gathering momentum worldwide, and whose principal outcome was the planetary demographic explosion, which even then had reached alarming proportions;
 - to participate voluntarily in every major international action on behalf of the "protection of nature".

In that particular world context, so different from that of today, which must be borne in mind in any objective assessment of the work of the pioneers, what did IUPN do between 1948 and 1955 to achieve these various objectives?

The conferences at Lake Success in 1949 gave a magnificent send off to the pursuit of objective Number 1, thanks to Unesco. Concurrently with the UNSCCUR, an important international technical conference on the protection of nature co-sponsored by Unesco and IUPN, was held at the United Nations. The general secretariat was entrusted to the Secretary General of the Union.

The Council resolved to pursue this policy of regular personal contacts and initial interdisciplinary collective studies and discussions for several years by holding an annual conference, by organizing a technical meeting at each General Assembly, then held at two-yearly intervals (Brussels in 1950, Caracas in 1952, Copenhagen in 1954), and by convening additional, purely technical meetings (The Hague 1951, Salzburg 1953). These events involved intensive preparation and generated an enormous quantity of publications. Later, they were

held less frequently. But the Union was well on the way to achieving its first two goals. Its reputation grew, and the worldwide network of 'Conservationist Brethren' expanded and diversified in a marvelous spirit of enthusiasm and friendship. A few figures will give some idea of the growth: between the Brussels Assembly in 1950 and the Copenhagen Assembly in 1954, the number of countries represented by delegates (excluding diplomat-observers) increased from 18 to 31, the number of participants other than nationals of the host country from 67 to 109, and the number of non-Europeans from 10 to 23. (N.B. The Copenhagen Assembly was the first to which the USSR sent delegates.)

Immediate steps were taken to initiate "IUPN Pro Natura actions" in the five continents. It would be pointless to present the results here. The groundwork for these first concrete actions was laid after Fontainebleau in the solid work of the Commissions: Survival Service, then Education, closely followed by Legislation.

Numerous proposals for national associations for the protection of nature were put forward or supported, often successfully, by the Union. The *Bulletin* was launched in 1953. A publication in two volumes "The State of the Protection of Nature in the World in 1950" was published in 1952. All the minutes of the technical meetings were published and circulated. And these are only a few of its accomplishments.

Finally, at the international level, IUCN's crowning achievement at that time was the crucial role it played in convening, organizing (I was the general rapporteur) and publishing the *Proceedings of the International Conference for the Protection of the Fauna and Flora of Africa* (Bukavu, Belgian Congo, 1953) cf. the above-mentioned London Convention in 1933. Another important international initiative was that even before my departure in 1955 we were already discussing the idea mooted by Peter Scott and others of setting up a partner organization to IUPN, a semi-governmental organization, which would be better equipped to raise private funds and finance projects. And so, in 1961, the World Wildlife Fund, now the World Wide Fund for Nature, came into existence.

To complete this overview by a final apologia for the warriors of the first decade, I would say that their outstanding merit was to have "kept going". Financial worries were their daily lot, even though both the premises and the Secretary General's time were loaned free of charge by IRSAC — the latter on a part-time basis, in other words after 5.30 p.m. and during his free hours! The only fulltime "officer" was the unforgettable Marguerite Caram. And the staff of the Secretariat, four years after Fontainebleau, consisted of three dedicated, underpaid souls, who were often obliged to work into the night.

Dues, which were quite nominal for the first government-members (Switzerland, Belgium), were often in arrears. Unesco subsidies were earmarked for specific activities. The spectres of bankruptcy and liquidation were constant companions. Bruxelles Hayez, the printer, was

a paragon of understanding, and patience, a veritable "patron of the arts". Quite frankly, the supreme virtue of the post-Fontainebleau pioneers was to have left IUPN alive, fairly widely known, and esteemed after seven years of financial acrobatics and austerity. The reproach is occasionally levelled at them that they mercilessly sacrificed the rigour of the scientific approach to a form of "survival" empiricism. This seems to me totally unwarranted. And I would add, in closing, that these years of budgetary gloom would have had a fatal outcome had a benevolent genius not done his utmost to procure financial "shots in the arm" for the Secretariat, a thousand dollars one day, three thousand the next. The arrivals of these wind-falls at the rue Montoyer was greeted by dances of joy. Need I mention that this good genius was none other than Harold Coolidge? Thanks, once again, Hal!

My mission to retrace the protohistory of the Union is now accomplished. Let me just add that my connections with the Union were not severed in 1955. In fact they even became close again from 1962 to 1972, the year when my fascinating term of office (which coincided with decolonization) as President of the IUCN International Commission on National Parks came to an end and the English edition of the lengthy *United Nations List of National Parks and Equivalent Reserves* (602 pages plus 102-page Addendum) was published (the French edition was published in 1967), a document that took me six years of hard labour.

What's more, I still haven't severed my contacts with Gland. In 1985, I had the pleasure of leading an IUCN-WWF mission to Kinshasa which obtained President Mobutu's wholehearted and decisive support for the major white rhino/Garamba project in Zaire.

It only remains for me in concluding to say how happy I am that my old "baby", IUCN, and its young brother WWF have become what they are today — two of the best power-generating plants, alongside UNEP and going far beyond the role of the Brundtland Commission. May they continue to stir the conscience of human communities in the tragic throes of a demographic explosion, whose very survival is threatened by the progressive planet-wide plunder of their natural resources and their living environment.

Brussels, June 1988
Translated from French

HOW THE UNION TOOK SHAPE

Max NICHOLSON*

Origins of IUPN

Almost immediately after the end of World War II the Swiss League for the Protection of Nature took steps to resurrect the Consultative Commission for the International Protection of Nature, established at Basel in 1913 but aborted by World War I. In my recent book, *The New Environmental Age*, I have described how an arbitrarily convened group from seven countries, said to represent 16 organizations "at the instance of their Swiss hosts, took the opportunity, during their tour of Switzerland, to discuss the future of international collaboration as regards the Protection of Nature." In fact, not one of the 16 present had any mandate. Although as head of the Lord President's Office in London I was by chance the ranking government officer present, I certainly had none, nor in fact had the UK Government been given any warning of the talks. Nevertheless an impressive record was published, including the two "provisional conclusions" that, "in order to facilitate the cooperation of national societies concerned with the protection of nature and with the preservation of amenities", an active international organization was desirable, and secondly that "the national societies might well, it is suggested, consider this matter." On their own account the Swiss League's representatives added as the sting in the tail of these innocuous sentiments their hope to submit to the Swiss Government suggestions for, "future intergovernmental collaboration in regard to the Protection of Nature." Promptly after these modest conclusions, reached on 6 July 1946, the Swiss League requested their government to reactivate the long lapsed Consultative Commission, stating groundlessly that "all the participants at our meeting in July were of the opinion that the Consultative Commission... created by the Swiss Federal Council in 1913 could do useful work in reinforcing international conventions and in creating new ones for the protection of species which are on the way to extinction."

To cut a long story short, neither the originally disclosed concept of a clearing-house between national societies nor the rapidly substituted proposal to revive the 1913 Commission proved viable, but fate promptly came to the rescue in the ingenious shape of Julian Huxley. Having been largely responsible for injecting the big S for Science into the acronym of the embryonic Unesco, he had been propelled into its driving seat, and before his bosses could catch their breath, they found themselves committed to sponsoring an International Union for the Protection of Nature, which none but he knew or cared anything about. The Swiss promoters, Dr Charles Jean Bernard and Johann Buttikofer, kept their cool, and followed the ball into its unexpected goal. Whatever criticisms may be made against them, it is fair to add that but for their pertinacity and negotiating skills no such project would have got off the ground. Despite the quality of their efforts, it was nevertheless widely seen to be essential to establish the new body as an independent entity, with a strong scientific foundation. A generous offer to base the Union in the great National Museum at Brussels, with its scientific and international resources, proved

the answer. That made it possible to secure as first Secretary-General the versatile and talented Jean-Paul Harroy, whose gifts enabled the penurious and feeble infant to look credible. This was much helped by Huxley's baptismal gift of a mandate to hold in 1948 at the temporary headquarters of the United Nations at Lake Success, a first International Technical Conference on the Protection of Nature, twinned with a larger UN Conference on the Conservation and Utilization of Natural Resources, in which big interests were involved.

The Years of Struggle

Three years after its unpromising origins the Union was thus plunged into the midst of a new and exciting ball game, enabling it to rub shoulders with governments and even offer them advice, as well as enlisting powerful American conservationists. It was also well set to appeal to the scientific community, despite its peculiar conservation commitment, as commanding some valuable channels of influence as a fringe member of the United Nations family. But for Huxley's unique understanding of its problems, and his vigorous timely sponsorship, it is questionable whether much of the Union's subsequent achievement would ever have come about. Leading conservationists such as Fairfield Osborn, Hal Coolidge, Ira Gabrielson and E.H. Graham in the United States, and others in Scandinavia, the Low Countries and France quickly rallied round, assuring the infant Union of a circle of powerful friends, who had been sadly missing during its foundation.

Institutional support was however still lacking, apart from the Museum in Brussels, and the juvenile Nature Conservancy in London, which felt an obligation to do its utmost to assist during the Union's early struggles. Less happily, the Union over-committed itself by embarking on an ambitious and costly series of major meetings in various countries, which initially occurred every year, gravely overstretching both its tiny staff and its volunteer officers and supporters. Although often untidy, and sketchily followed up, these focused on still neglected but important problems, and by showing the flag they kept up enthusiasm through the early stages.

It was essential, however, to establish solid scientific credentials, and this was faced at a landmark meeting in Copenhagen in 1954, when Professor Roger Heim, head of the Museum National d'Histoire Naturelle in Paris and a member of the Institut de France, took on the Presidency. I recall this Assembly as the first occasion when the threat of world population to conservation was raised by W. Vogt and others, and I was appointed to devise a course of action. Obviously the threat was important, but equally obvious was that taking it on would have crippled the infant Union. An Inter-governmental Conference on the subject was just meeting in Rome, and I was able

to persuade delegates that we should send them a telegram emphasizing our concern and their responsibility for action. I fear the results were zero, and eventually a much stronger and more mature Union has had to join the fray.

From Protection to Conservation

The ensuing General Assembly in Edinburgh in 1956 was notable for tackling such problems of public concern as treatment of damaged lands, disposal of mining spoil, and scientific management of nature reserves, as well as the relation of Ecology to Landscape Planning. It was at Edinburgh that, on the insistence of Fairfield Osborn, the name was changed to the "International Union for Conservation of Nature and Natural Resources" (IUCN). However unwieldy, this title launched the Union into the real world, and began rallying round it broader and more influential support. This was reinforced by the creation of strong permanent Commissions, of which National Parks soon made its name by undertaking the prestigious *United Nations List of National Parks and Equivalent Reserves*, and bringing their Directors together in the first of the World Conferences on National Parks -- a significant step in planting conservation worldwide. The Survival Service, with its list of Endangered Species, also made its mark, leading to the authoritative Red Data Books, while internationally important wetlands were raised to officially recognised status by Project Mar and the Ramsar Convention. Initiatives leading to the Charles Darwin Biological Station on Galápagos and to the solution of the Serengeti crisis before the 1961 Arusha Conference added to the impact. This was further reinforced by the series of effective nature conservation films following Bernhard Grzimek's outstanding *Serengeti Must Not Die*.

Progress on so many fronts was unhappily not accompanied by success in IUCN's housekeeping. The move to Switzerland, decided at the Warsaw General Assembly in 1960, averted a danger of becoming embroiled in a controversy over de-colonialization, and confirmed international links, but the financial support, which had been held out as an incentive for the move, was not forthcoming, and the Union's Executive Board, with all its merits, proved unable to cope with the mess into which its finances had fallen. Following Julian Huxley's African mission for Unesco in 1960 the scale of the emerging tasks burst upon us. In close concert with IUCN under its President, Jean Bear, plans were rushed through in London to set up a matching but complementary body, called the World Wildlife Fund. Composed of business men and other leading figures it was to concentrate upon massive fundraising, professional public relations, influencing governments, and recruiting large-scale public support. IUCN, being its scientific and conservation partner, would be entitled to appropriate financial support from it.

That may be taken as the end of IUCN's formative period, the subject of this highly condensed summary of the steps by which conservation emerged from embryonic obscurity to become, as it now is, a leading factor in the fortunes of planet Earth.

** Max Nicholson has been actively involved in the conservation movement for more than 40 years in the UK and on the international scene. His interests in ornithology and ecology led to his key role in many conservation organizations including IUPN and later IUCN. He was Chairman of the committee responsible for the establishment of WWF in 1961. Pioneer in many areas, one of his most influential contributions was to the development of urban ecology in the UK.*

"It is not enough for a country to preserve its own natural resources, since we are all dependent on each other, and the waste of natural resources anywhere is important to all of us." (Eleanor Roosevelt, November 1952, IUPN Bulletin)

IUCN TURNS FORTY!

Allan GILLE

It was with the greatest pleasure that I accepted the request by the Secretariat of the Union, on the occasion of its Fortieth Anniversary, for a brief account of the years that followed its creation at Fontainebleau, and more especially the period from 1949 to 1965. At that time, I worked in the Department of Exact and Natural Sciences at Unesco, and was in charge of relations with the Union, a responsibility I shared with my colleague Eleen Sam (Thierry-Mieg): she handled the administrative side and I the programmes. (...)

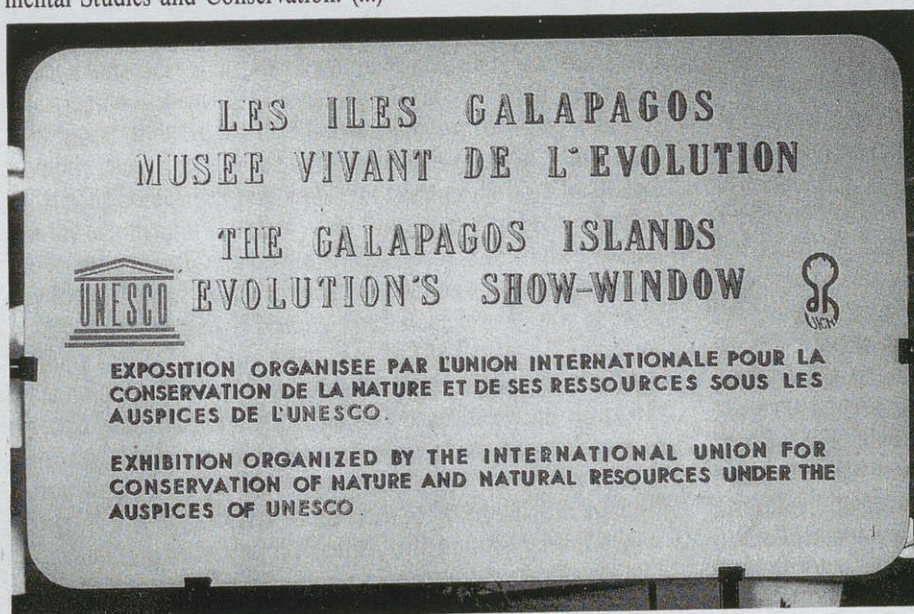
During those sixteen years spent at close quarters with Unesco, that is until I was appointed Director of the Regional Centre of Science and Technology at Unesco for Africa in Nairobi in 1965, I was able to attend nearly all the General Assemblies, Technical Meetings, and meetings of the Executive Council of the Union. Space prevents me going into lengthy details of all those events but I have selected several that seemed to me of particular importance because of their repercussions on the conservation of nature and its resources.

First of all, the International Technical Conference (Unesco/IUCN) held at Lake Success from 22 to 29 August 1949, concurrently with UNSCCUR, proved that the notion of conservation, in its widest sense, was a well-established concern of the United Nations' system. Furthermore, whereas in the past the Agendas of most meetings of this type were devoted mainly to the legal technicalities of conservation, the Lake Success Conference highlighted the fundamental roles that education and ecology should play in conservation development programmes. The Union embraced these conclusions and shortly afterwards set up standing international commissions in these spheres. (...) Recognizing that education in conservation should begin at the earliest possible stage, the Union turned resolutely towards young people and from 1952 on ran regular international camps on the study and protection of nature for young people which were financially supported by Unesco in the form of scholarships. This led to the foundation, in 1956, of the International Youth Federation for Environmental Studies and Conservation. (...)

The second joint Unesco/IUCN activity, which deserves a mention here because of its exemplary nature, was the campaign conducted by the two organizations to save the Galápagos Archipelago, a heritage of worldwide import, whose relict fauna was fast disappearing as a result of human activity. Motivated by a common desire to act swiftly and effectively, the two organizations despatched a number of top-calibre scientists, first E. Eibl-Eibesfeldt of the Max Planck Institute (1957) accompanied by R.I. Bowman of the San Francisco State College, and later J. Dorst of the Museum of Natural History in Paris (1958). Their reports led to the creation in 1959 of the Charles Darwin Foundation for the Galápagos Islands under the joint auspices of Unesco and IUCN. Julian Huxley was appointed Honorary President and V. van Straelen President. This coincided with the centenary of the publication of Darwin's major work *Of the Origin of Species by Natural Selection*. A further outcome was the foundation of Darwin Station on the island of Santa Cruz in January 1964. (...)

(Extracts)

Translated from French



Exhibition to celebrate the publication of Charles Darwin's magnum opus *Of the Origin of Species by Natural Selection*. Shortly before, the Charles Darwin Foundation for the Galápagos Islands had been founded in Brussels under the joint auspices of Unesco and IUCN. Credit: Unesco.



THE WORLD CONSERVATION UNION

40 YEARS OLD IN 1988

What is IUCN?

- The largest professional body in the world that is working to care for the soils, lands, waters and airs of our planet and the life they support – essential natural resources without which there can be no human future.
- A body active in over 120 countries in the world.
- A body whose members include 61 States and 128 government agencies – more than half of them in developing countries.
- A body whose members also include most of the famous non-governmental conservation organizations – the national branches of the World Wide Fund for Nature (formerly the World Wildlife Fund), the Sierra Club, the Royal Society for the Protection of Birds, Fédération française des Sociétés de protection de la nature, Instituto Mexicano de Recursos Naturales Renovables, and over 400 others.
- The only organization in the world in which States, government agencies, and non-governmental organizations participate equally in the cause of conservation.

A Worldwide Union – The World Conservation Union

FACT SHEET ON IUCN: THE WORLD CONSERVATION UNION

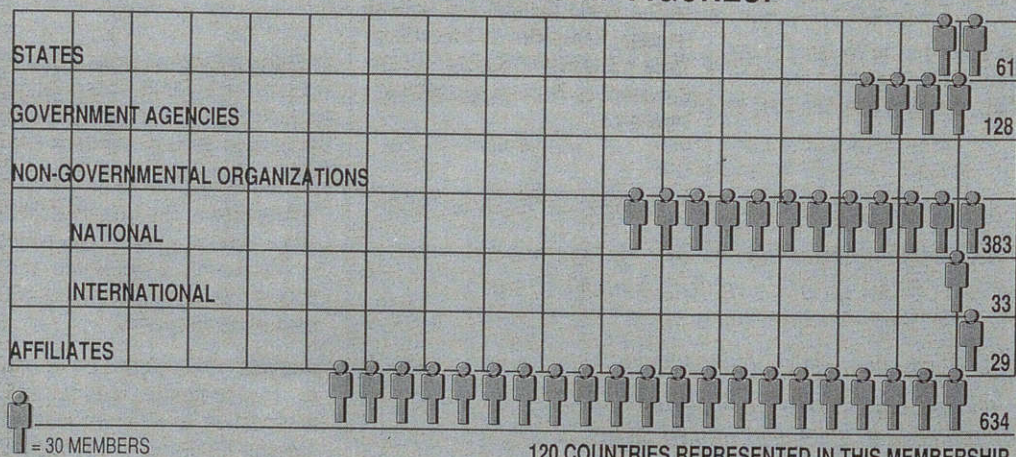
Founded:

- in 1948 at an international conference at Fontainebleau, France, under the sponsorship of the Government of France, the Swiss League for the Protection of Nature, and the United Nations Educational, Scientific and Cultural Organization (Unesco).

Membership:

- 61 States, including 20 from Africa, 5 from the Americas, 15 from Europe, and 21 from Asia and the Pacific;
- 128 government agencies, ranging from the Administración de Parques Nacionales of Argentina to the Nature Resources Board of Zimbabwe;
- 33 International and 383 national non-governmental organizations, including:
 - **Scientific bodies** such as the Royal Geographical Society, Institute of Botany, Academia Sinica, the Smithsonian Institution, Institut Français de Recherche Scientifique pour le Développement en Coopération (ORSTOM), and the Institute of Evolutionary Animal Morphology and Ecology (USSR);
 - **Zoological societies** such as those of Frankfurt and New York;
 - **Indigenous people's** organizations such as Proyecto PEMASKY de la Asociación de Empleados Kunas (AEK), Panama, and the Inuit Circumpolar Conference;
 - **Advocacy organizations** like Greenpeace and the Australian Conservation Foundation;
 - **Natural history societies** such as the Bombay Natural History Society and the Natural History Society of Jamaica; and
 - **Educational institutions** like the Yale School of Forestry, the Centro de Datos para la Conservación, Universidad Nacional Agraria of Peru, and Lincoln College, University of Canterbury, New Zealand.

CURRENT MEMBERSHIP FIGURES:



IUCN

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THE CONSERVATION CHALLENGE

Are you worried about the state of our world – the only known foothold of life in the universe? If so, you are in good company. The opinion polls show that over 70% of people in Europe, 55% of people in the United States and over 40% of people in Japan are seriously concerned about some aspect of their environment. Millions more people in the developing countries have even sharper worries about their natural resources. For many of them suffer from "the pollution of poverty", forced by the pressures of necessity to destroy the forests to create somewhere to grow food in, to cut the last trees to fuel tomorrow's cooking, or to eat the seed corn without which there will be no more harvests. And the pressures upon them are aggravated by the demands made by wasteful over-consumption of resources in the richer countries, by distortions in the world's economic and trading systems, and by inequities within their own countries.

We all know about the problems. The pollution that threatens the balance of the climate and has knocked a hole in the screen of ozone in the upper air. The fouling of rivers and acidification of lakes. The creeping deserts and receding woodlands. The depletion of fisheries. The impoverishment of the rich life of the earth, perhaps by as much as one species a day – most of them still undescribed by scientists. We literally do not know what we are losing. But we all want the destruction stopped.

How? By taking action that will work. Not all at once: this is not an age of universal miracles. But step by step, so that the gains through wise management slowly come to outweigh the losses due to over-exploitation.

That action has to be fitted to the setting where the problem lies. This, in turn, demands understanding of

environmental systems: of the complex web of nature that we call the biosphere. Only the best science will give us such understanding. But if we are to design appropriate actions, we also need to know about the human situation: about the needs of people, and about their traditional wisdom – for many so-called 'primitive' people have a deep understanding of how nature works, and strong feelings about how they want to live. *The solutions have to be put together from a blend of the insights provided by social and biological sciences and a sensitivity to human cultural values.*

That is what IUCN does for it is a World Conservation Union that seeks real solutions based on sound scientific principles – and gets them applied in sustainable development: in action that improves the human condition, brings people into balance with the environment on which they depend, and conserves the richness, beauty and wonder of nature.

HOW DOES IUCN WORK?

The Union's mission is to provide knowledge and leadership for the sustainable use of the planet's natural resources. It provides knowledge that is the intellectual base for conservation, and can be sharpened into the practical tools for sustainable development. It provides leadership that can guide governments, aid agencies, non-governmental organizations and local communities. It helps governments to develop international Conventions and national laws on conservation. IUCN initiative helped to create many well-known international measures like the Convention Concerning the Protection of The World Cultural and Natural Heritage, Convention on International Trade in Endangered Species, and the Convention on Wetlands of International Importance.

The World Conservation Strategy: The basis for action

In 1980 IUCN, in partnership with the United Nations Environment Programme (UNEP) and the World Wide Fund for Nature (WWF) and in collaboration with Unesco and the Food and Agriculture Organization of the UN (FAO), published the *World Conservation Strategy*. This has been hailed as the most important conservation manifesto of the 1980s. It re-states the intellectual base for conservation. Its central theme is that sustainable development – action that alters the environment so that it caters more effectively for human needs, without depleting renewable resources – is essential if the world is to be free from poverty and squalor, but that

such development must be based on resources that regenerate naturally and can meet our needs indefinitely. Destruction of tomorrow's foundations in order to satisfy today's needs is self-evident folly.

And within that development we have to find room for wild nature, which is a spiritual enrichment as well as, in a very practical sense, the foundation of our existence. It is the processes of wild nature that renew the oxygen in the air, maintain the cycles of essential elements, sustain the fertility of the land, and regulate the flow of rivers. We turn to wild nature for new crops and new drugs, as well as for the beauty that enriches our lives. The World Conservation Strategy emphasises that conservation and sustainable development are not enemies, but are inseparably one.

KEY CONCLUSIONS OF THE WORLD CONSERVATION STRATEGY

The World Conservation Strategy (WCS) lays down three basic principles for conservation: that essential ecological processes and life-support systems must be maintained; that genetic diversity must be preserved; and that any use of species and ecosystems must be sustainable.

The WCS:

- defines the objectives of living resource conservation;
- determines the priority requirements for achieving each of the objectives;
- proposes national conservation strategies to meet the priority requirements;
- recommends anticipatory environmental policies, a cross-sectoral conservation policy, and a broader system of national accounting;
- suggests ways of helping rural communities to conserve their living resources and advocates greater public participation in planning and decision-making concerning the use of living resources.

A WORLD CONSERVATION UNION IN ACTION

Strategies are useless unless they are applied. As a World Conservation Union, IUCN has developed the World Conservation Strategy, and much else besides, in four steps:

Information – The Union watches over – monitors – what is happening to the world's environment and collects scientifically-based data about species and ecosystems.

Analysis – It investigates the causes of environmental change and degradation in different places, assesses the seriousness of different problems, and determines options for solutions.

Planning – Drawing on information and analysis, specialists consider how to reverse destructive trends and set development on a path to sustainability which is appropriate to the local setting.

Action – The Union designs actions, provides advice and helps to carry both through to conclusions, working in close partnership with governments, aid agencies, non-governmental organizations and local groups and communities. All parts of the Union are involved: we have an integrated programme.

In all its actions, IUCN seeks to be:

- scientifically sound;
- economically realistic; and
- socially constructive.

THE MEMBERSHIP, WORLD-WIDE contributes knowledge of problems, priorities and solutions.

INDIVIDUALS from member organizations and the wider professional community serve in **COMMISSIONS** – voluntary task forces – that harness their expertise to address:

- the application of ecological science to conservation;
- the choice of areas for protection as national parks and reserves;
- tactics to ensure the survival of key or endangered species;
- the form of new conservation laws and approaches to management;
- patterns for environmental education and training;
- the practices of sustainable development.

THE SECRETARIAT OF THE UNION undertakes special programmes that study the dynamics of key components of the living world, including tropical forests, arid lands, wetlands and coastal habitats (such as coral reefs or mangroves), and develops plans for their management in a sustainable way.

OTHER PROGRAMMES examine the crucial question of how human populations can be brought into sustainable balance with their

environment – and how to ensure that Action Plans take proper note of the key role of women, as the people who grow most of the food, gather most of the fuel, and carry most of the water used in many parts of the world and play a central role in teaching the next generation how to respect their environment.

TWO SPECIAL WORLD INFORMATION CENTRES – the World Conservation Monitoring Centre and the Environmental Law Centre – are the main repositories of information on the state of the earth's wildlife and protected areas, and the kinds of environmental law that are being adopted and implemented to deal with resource management challenges.

THE FIELD OPERATIONS DIVISION – has almost 60 staff, most of whom are outposted in six regional offices in the developing world in Africa, Central America, and Asia. They put the knowledge gathered and synthesised by the Membership, the Commissions, the Secretariat and the Centres into action. Over 2,300 specialists drawn from the Commissions and IUCN's Consultants Register are on hand to ensure that the best skills are deployed on every project. The projects are practical demonstrations that the concepts developed by the Union can be applied in the real world.

DIVERSITY OF IUCN'S MEMBERSHIP

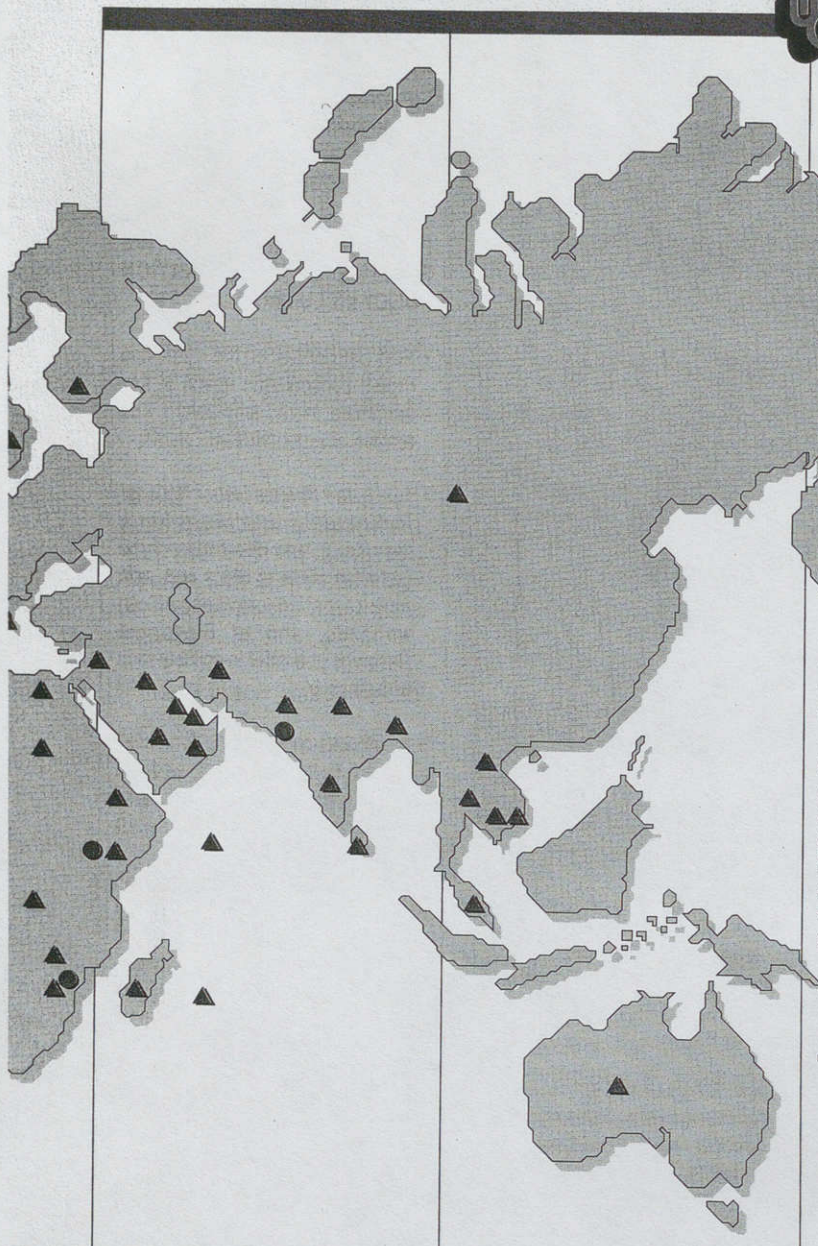
In addition to the 61 States in the North and South, East and West that are members of the Union, there is a rich diversity in the rest of IUCN's membership, a diversity that IUCN cherishes as a powerful tool for reaching people of all levels of society and of all persuasions. Here are some examples:

<i>Type of institution/concern</i>	<i>Example in IUCN membership</i>
Academies of Science	Academia de Ciencias Físicas, Matemáticas y Naturales de Venezuela
Anti-hunting associations	Lega per l'Abolizione della Caccia, Italy
Coalitions	Fédération française des Sociétés de protection de la nature (FFSPN)
Community associations	Agriculture et Bois (AGRIBO), Zaire
Data centres	Centro de Datos para la Conservación, Bolivia
Development assistance institutions	OXFAM, UK
Ecological societies	Ecological Society of the Philippines
Environmental education societies	Council for Environmental Education, UK

Environmental law institutions	International Council of Environmental Law
Environment and development	Development Alternatives, India
Field action groups	Voluntarios en Recuperación y Defensa Ecológica (VERDE), Costa Rica
Forestry institutions	Forestry Development Authority, Liberia
General nature conservation	Danish Society for Nature Conservation
Government research departments	Department of Scientific and Industrial Research, New Zealand
High-level government institutions	Comité de la Protection de l'environnement auprès du Conseil des ministres de la R.P. de Bulgarie
Hunting associations	Brazilian Hunting Association
Indigenous people institutions	Proyecto de Estudio para el Manejo de Areas Silvestres de Kuna Yala (PEMASKY) de la Asociación de Empleados Kunas (AEK), Panama
Individual national parks	Parco Nazionale d'Abruzzo, Italy
Large nature conservation institutions	League for the Conservation of Nature (1.6 million members), Poland
Marine areas	National Society for the Preservation of the Wadden Sea, Netherlands
Marine protected areas	Great Barrier Reef Park Authority, Australia
Mountain institutions	International Commission for the Protection of Alpine Regions
Museums	Brunei Museum
National parks administrations	Administración de Parques Nacionales, Argentina
National trusts	National Trust for Ireland
Natural history	Natural History Society of Jamaica
Natural resource management	Instituto de Desarrollo de los Recursos Naturales Renovables (INDERENA), Colombia
Natural science societies	Société helvétique des sciences naturelles, Switzerland
Ornithological societies	Swedish Ornithological Society
Pressure groups	Greenpeace
Private research institutions	Smithsonian Institution, USA
Professional associations	American Society of Mammalogists, USA
Provincial government departments	Ministry of Natural Resources, Ontario, Canada
Schools of higher learning	School of Forestry and Environmental Studies, Yale University, USA
Site-specific associations	Fundación Charles Darwin para las Islas Galápagos, Ecuador
Space and atmosphere	Pakistan Space and Upper Atmosphere Research Commission (SUPARCO)
Species-specific associations	Monarca Butterfly, Mexico
State corporations	Energy Company of São Paulo, Brazil
Teacher associations	Grupo Ecológico de Docentes de Ciencias de El Salvador "MONTECRISTO" (GEDMO)
Tourist authorities	Tourism Development Department, Assir Principality, Saudi Arabia
Universities	Université de Liège, Belgium
Water issues	German Water Protection Association
Wildlife conservation	China Wildlife Conservation Association
Zoos	S.P.M. Parc Zoológic de Barcelona, Spain
Zoological societies	New York Zoological Society, USA



120 COUNTRIES IN WHICH IUCN HAS MEMBERS



1. Angola
2. **Argentina**
3. **Australia**
4. Austria
5. Bahamas
6. **Bahrain**
7. **Bangladesh**
8. Barbados
9. **Belgium**
10. Belize
11. **Benin**
12. Bolivia
13. Botswana
14. Brazil
15. Brunei Darussalam
16. Bulgaria
17. **Cameroon**
18. **Canada**
19. **Chad**
20. Chile
21. China
22. Colombia
23. **Costa Rica**
24. **Côte d'Ivoire**
25. Czechoslovakia
26. Democratic Kampuchea
27. Democratic People's Republic of Korea
28. **Denmark**
29. Dominican Republic
30. **Ecuador**
31. **Egypt**
32. El Salvador
33. Ethiopia
34. Fiji
35. **Finland**
36. **France**
37. German Democratic Republic
38. **Germany, Federal Republic of**
39. Ghana
40. **Greece**
41. Guatemala
42. Honduras
43. Hungary
44. **Iceland**
45. **India**
46. Indonesia
47. **Iran**
48. **Iraq**
49. Ireland
50. Israel
51. Italy
52. Jamaica
53. Japan
54. **Jordan**
55. **Kenya**
56. Kuwait
57. **Lao People's Democratic Republic**
58. Lebanon
59. Liberia
60. **Libyan Arab Jamahiriya**
61. **Liechtenstein**
62. **Luxembourg**
63. **Madagascar**
64. Malawi
65. **Malaysia**
66. **Mali**
67. Malta
68. **Mauritania**
69. **Mauritius**
70. Mexico
71. Monaco

72. **Mongolia**
73. **Morocco**
74. Mozambique
75. **Nepal**
76. **Netherlands**
77. **New Zealand**
78. Nicaragua
79. **Niger**
80. Nigeria
81. **Norway**
82. **Oman**
83. **Pakistan**
84. Panama
85. Papua New Guinea
86. Peru
87. Philippines
88. Poland
89. Portugal
90. **Qatar**
91. Republic of Korea
92. Rwanda
93. **Samoa**
94. **Saudi Arabia**
95. **Senegal**
96. **Seychelles**
97. Singapore
98. South Africa
99. **Spain**
100. **Sri Lanka**
101. **Sudan**
102. Swaziland
103. **Sweden**
104. **Switzerland**
105. **Thailand**
106. Trinidad and Tobago
107. Tunisia
108. Turkey
109. Uganda
110. Union of Soviet Socialist Republics
111. **United Kingdom**
112. United Republic of Tanzania
113. United States of America
114. Uruguay
115. **Venezuela**
116. **Viet Nam**
117. Yugoslavia
118. **Zaire**
119. **Zambia**
120. **Zimbabwe**

Countries which are members of the IUCN are indicated in bold text and on the world map with a $\triangle$

PHICAL DISTRIBUTION OF MEMBERSHIP

(position at 5 October 1949 and 15 July 1988)

	States		Government agencies		National NGOs		Affiliates	
	1988	1949	1988	1949	1988	1949	1988	1949
AFRICA	20		23	1	20	1	2	
ASIA	4		19		59	5	7	
AUSTRALASIA	1		12		94	15	6	
EUROPE	10		13		39		3	
AMERICA	8		8		3		0	
ANTARCTICA	3		18		24	2	1	
OTHER	0		9		8	3	0	
TOTAL	15	4	26	4	136	42	10	
INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS	61	4	128	5	383	68	29	0

1949] international non-governmental organizations

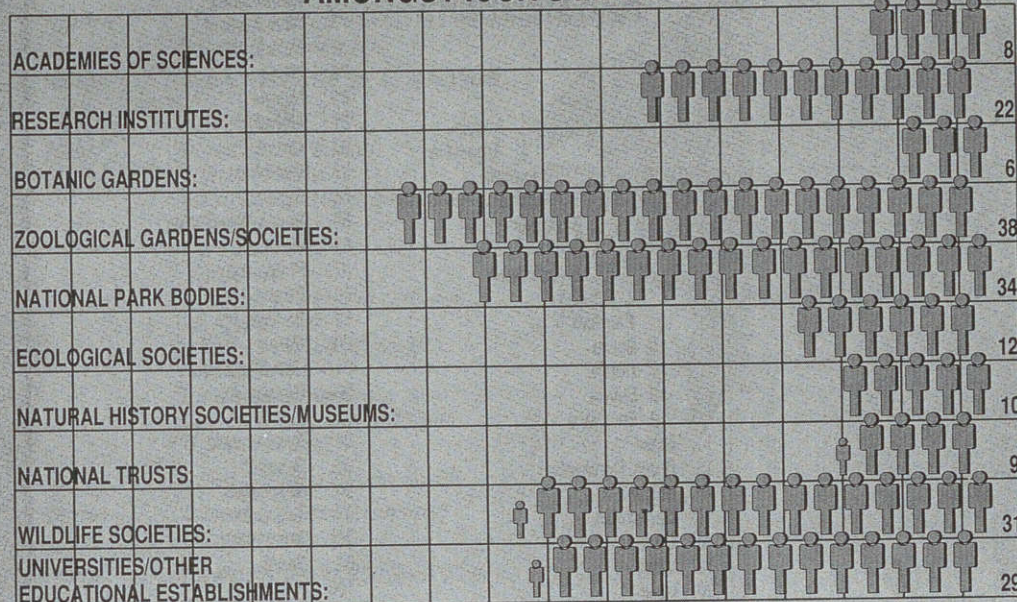
IUCN REGIONAL OFFICE

Nairobi	Kenya
Harare	Zimbabwe
Dakar	Senegal
Karachi	Pakistan
San José	Costa Rica
Washington	USA

Regional offices of the IUCN are indicated with a $\circ$ on the map.



AMONGST IUCN'S MEMBERS



= 2 MEMBERS

WHAT IUCN HAS ACCOMPLISHED

Within the past few years, the Union has:

HELPED MORE THAN 30 GOVERNMENTS prepare National Conservation Strategies – plans that implement the principles of the World Conservation Strategy in their own countries.

PRESSED GOVERNMENTS FOR ACTION ON:

- establishing national policies to achieve a stable balance between population and natural resources, under conditions that enhance human dignity and the quality of life;
- providing incentives for natural resource management that is both economically profitable and durable in the long term;
- developing economic measures that put a proper value on irreplaceable resources and avoid the erosion of these values because of the burden of debt;
- improving the management of the living resources of the sea, including protecting marine mammals, through adopting a Global Plan of Action prepared in partnership by UNEP, FAO and IUCN;

- saving the dwindling herds of African elephants threatened by illegal trade in ivory, and of rhinos threatened by trade in their horns;
- observing the ban on commercial whaling, unanimously supported by the best scientific experts in the world;
- stopping the export of persistent pesticides from European countries which no longer use them at home, and have been dumping them in the developing world;
- ending the conflict between commercial logging and the rights and lives of village peoples in several parts of the developing world.

WORKED WITH GOVERNMENTS TO SECURE:

- better understanding of the environmental implications and components of development programmes in many countries including Botswana, Costa Rica, Pakistan, Zambia and Zimbabwe;
- inscription of sites of outstanding universal value on the World Heritage list;
- an Action Plan for the Alps, threatened by dying forests and excessive tourist development;
- action to conserve the coastal environments of the Red Sea, the Gulf, the Wadden Sea, and the Mediterranean Sea;

- improvements in the effectiveness of protected areas in tropical Africa, Asia, Latin America, and the islands of the Pacific;
- new management plans for important national parks in Cameroon, China, Ethiopia, Indonesia, Liberia, Oman, Sri Lanka, Thailand and Zaire.

WORKED WITH VARIOUS AGENCIES TO DESIGN PROJECTS:

- to secure protected areas in Indonesia and Madagascar (World Bank), and improve management of Garamba National Park (Unesco/WWF/Frankfurt Zoological Society);
- to conserve the Giant Panda in China (WWF), to utilize wildlife in Tanzania (UNDP), to conserve gorillas in Zaire (WWF/Frankfurt Zoological Society) and dugongs in East Africa (UNEP), and to promote sustainable utilization of green iguanas in Costa Rica (NORAD) and tree ducks in El Salvador (SIDA);
- to develop practical plans for conservation including measures that will protect forests, water supplies, and other resources vital to the well being of rural communities in Tanzania in the Serengeti (NORAD); Ngorongoro (NORAD/EEC); the Usambaras (EEC/NORAD/FINNIDA); Mount Elgon in Uganda (NORAD); the Korangi Creek in Pakistan

(UNEP/NORAD); Bocas del Toro in Panama (WWF/NORAD); Petén in Guatemala (NORAD/SIDA); Region II in Nicaragua (NORAD/SIDA); and the Belize Barrier Reef (CIDA).

PUBLISHED AUTHORITATIVE REVIEWS OF CONSERVATION POLICY INCLUDING:

- 'Red Data Books' on the status and urgent conservation needs of key mammals, birds, amphibians and reptiles, invertebrates and plants;
- the *United Nations List of National Parks and Protected Areas* (every two years), and directories of the protected areas of Africa and Latin America, of Neotropical and African wetlands, and of Biosphere Reserves (the latter in collaboration with Unesco);
- handbooks on *Managing Protected Areas in the Tropics* and on *Managing Marine and Coastal Protected Areas*, both in collaboration with UNEP;
- guides for conservation and development in a number of countries (including Madagascar, Pakistan and Zambia) and in the Sahel region, whose environment has been devastated by recent drought;
- reports on the conservation of a wide range of species, including marine turtles, polar bears, guanaco, crocodiles, African primates, and antelopes;
- guidelines for managing buffer zones around protected areas in tropical forests, for resettlement of transmigrants in Indonesia, for management of moist tropical forest lands, and decision-making in establishing environmental standards (in collaboration with WHO).

HELPED TO DEVELOP AND OPERATE CONSERVATION TREATIES AND NATIONAL LEGISLATION INCLUDING:

- the Conventions on World Heritage, International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Conservation of Migratory Species (Bonn), the ASEAN Agreement on Conservation of Nature and Natural Resources (Kuala Lumpur) and the African Convention on the Conservation of Nature and Natural Resources (Algiers);



- a draft global Convention on the Conservation of Biological Diversity;
- national legislation concerning the implementation of CITES in India, wildlife and habitat protection in Oman, and general environmental principles in Saudi Arabia;
- guidelines for the development of environmental standards and for legislation on the conservation of plant species.

BUILT UP THE WORLD CONSERVATION MONITORING CENTRE AND THE ENVIRONMENTAL LAW CENTRE as unique repositories of data in their field, including:

- records of over 12,500 protected areas;
- records of over 80,000 species of plants and animals of conservation importance;
- records of over 800,000 details of trade in wild species;
- 31,000 laws and administrative instruments.

MANAGED NEARLY 300 FIELD PROJECTS which implement the principles of the World Conservation Strategy and demonstrate how they work on the ground.

IUCN – THE WORLD CONSERVATION UNION – HAS A TRULY WORLDWIDE PROGRAMME IN THE SERVICE OF NATIONS AND NATURE. IF IT IS NOT ACTIVE IN YOUR COUNTRY, IT WILL NOT BE THROUGH LACK OF WILL. IT MAY BE THROUGH LACK OF SUPPORT – YOUR SUPPORT FOR THE UNION AND ITS MEMBERS.

WORLD CONSERVATION PARTNERSHIP

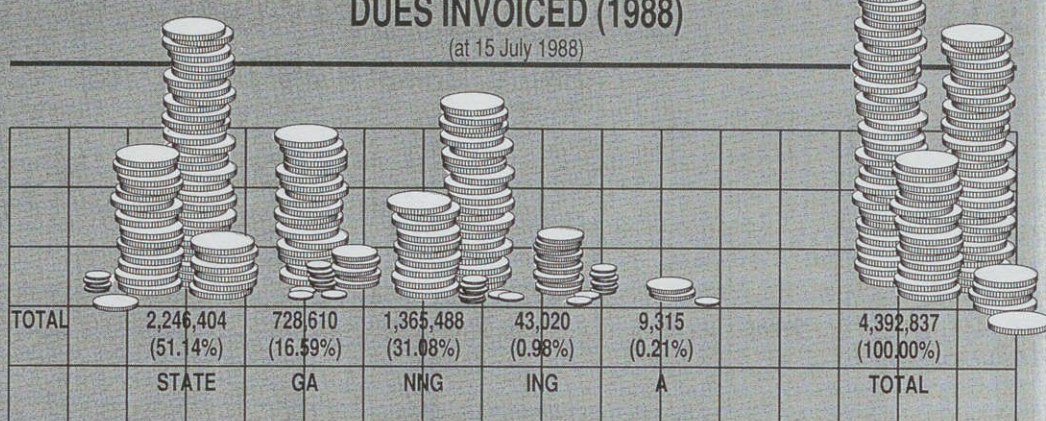
The Conservation bodies of the world form a true partnership. IUCN is itself a partnership of its 600 member organizations. It works closely with:

- its various members, both governmental and non-governmental;
- the United Nations system – UNEP, FAO and Unesco;
- the World Wide Fund for Nature, together with the WWF national organizations, all of which are IUCN members;

- The Secretariats of International Conventions for Conservation;
- corporations such as British Petroleum, R.J.R. Nabisco and Citibank;
- foundations such as W. Alton Jones, Rockefeller Brothers, Ford, Andrew W. Mellon, Jessie Smith Noyes, Karl

DUES INVOICED (1988)

(at 15 July 1988)



● = 1.00% ● = 0.1% ● = 0.01%

Schmidt Scholl Fonds, David Shepherd Foundation and Vanderbilt Trust;

- the World Bank and the regional banks of Asia, Africa and the Americas, and multilateral aid agencies like the United Nations Development Programme and the Commission of the European Communities;
- national aid agencies in Canada, Denmark, the Federal Republic of Germany, Finland, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, the United States, and many other countries;
- States – whether they are members or not.

We have to act together if we are to solve the great problems of the world. For the world environment is a unit. The atmosphere and oceans belong to no single nation and affect the lives of all. The world's climate is driven by Antarctica, the white hub of the southern hemisphere, where no nation has unchallenged jurisdiction. Pollution knows no national boundaries. Species migrations do not respect frontiers. The march of deserts takes no heed of political alliances.

**IUCN
THE WORLD
CONSERVATION UNION
PROVIDES A UNIQUE
PARTNERSHIP FOR
ACTION**

IUCN GENERAL ASSEMBLIES

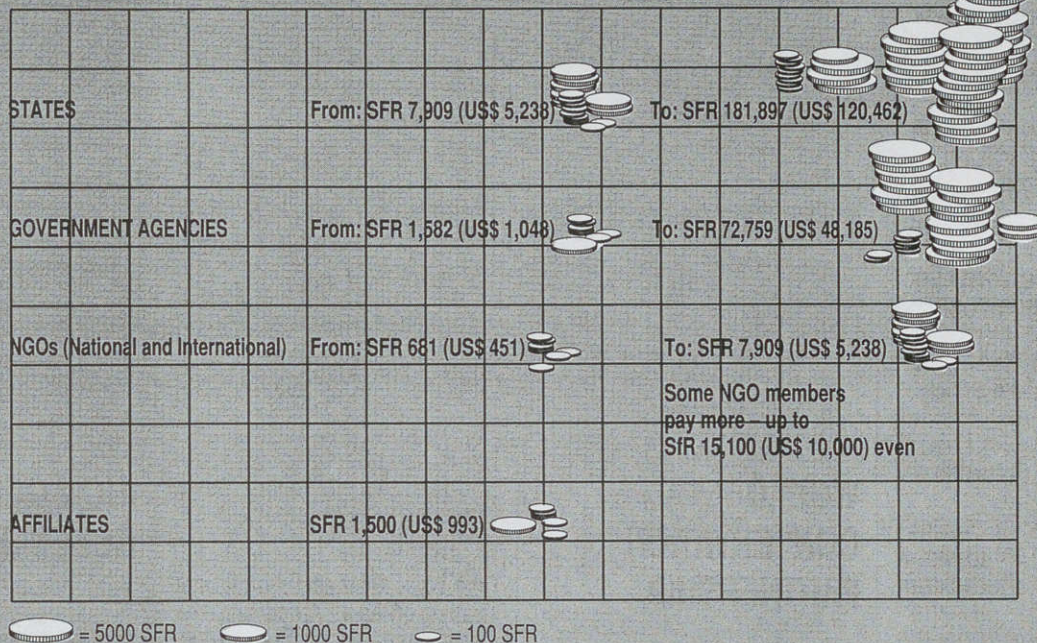
The General Assembly is arranged every three years and serves as IUCN's governing body in determining our activities over the coming triennium. It is attended by delegates of IUCN members (States, government agencies and non-governmental organizations) with voting rights and by non-voting observers, including members of the IUCN Council and Commissions, representatives of organizations with which the Union has formal working relations, other specially invited bodies, and IUCN supporters.

Participants have the opportunity to evaluate the Union's progress over the previous three years, elect officers (including members of the Council, the policy-making body of IUCN serving between Assemblies), and review and approve the programme and budget for the coming triennium.

1948	Fontainebleau, France
1950	Brussels, Belgium
1952	Caracas, Venezuela
1954	Copenhagen, Denmark
1956	Edinburgh, UK
1958	Athens, Greece
1960	Warsaw, Poland
1963	Nairobi, Kenya
1966	Lucerne, Switzerland
1969	New Dehli, India
1972	Banff, Canada
1975	Kinshasa, Zaire
1977	Geneva, Switzerland
1978	Ashkhabad, USSR
1981	Christchurch, New Zealand
1984	Madrid, Spain
1988	San José, Costa Rica



ANNUAL MEMBERSHIP DUES (1988)



MUCH ACTION FROM A SMALL INVESTMENT

Despite its worldwide role, IUCN operates on a very slender budget:

- the membership dues amount to only US\$ 2.7 million, borne very largely by governments and official agencies in the richest countries;
- a further US\$ 1.4 million is given to the Union to support its central management;
- about US\$ 1.4 million is given by governments and others to pay for programmes of evaluation and assessment in particular habitats or themes;
- the rest – a total of US\$ 6.7 million is to pay for specific projects commissioned from the Union.

We could not function at all if it were not for the generous voluntary contribution of time and effort by members and by individuals who serve on the various Commissions without payment. As it is, this world conservation union cannot meet more than a fraction of the challenges before it. Significant additional funding will enable it to serve the world far more effectively.

Is your country – or your organization – a member? Are people from your University working with the IUCN Commissions? Could your government, agency, company or community benefit from IUCN's help?

The instruments to shape a durable future for the world environment exist. We need to use them.

SUPPORTING THE WORK OF IUCN

IUCN's basic operating costs, its programmes and projects are paid for by its members, by development agencies, funds and foundations. But the demands for applying IUCN's clear guidance to the conservation challenges of today are always greater than the available funds will pay for. Our ability to carry out the additional work is dependent on other contributions.

IUCN is grateful for all donations, whether for discrete activities or general use, whether in the form of single grants, annual contributions or legacies.

For more information on specific programmes or on the mechanisms for making donations and the ways of ensuring respective tax advantages, please write to:

Fundraising Secretary
IUCN
CH-1196 Gland / Switzerland

THE WORLD CONSERVATION UNION

An anniversary is a time to look back, and pay tribute to those whose wisdom guided the past. Elsewhere in this special *Bulletin*, the vision of those who founded an International Union for the Protection of Nature, and the dedication of those who have led IUCN through the decades, receive their proper praise. But anniversaries are also occasions for looking forward, and such a posture is the most appropriate for a new Director General at a time when the world environment is under far greater threat than it was 40 years ago, and when the need for conservation becomes ever more urgent.

What should the mission of IUCN, as the World Conservation Union, be in the next 40 years? Put simply, it is to help ensure that the world is fit to live in, at a time when it is likely to have 10 billion people to feed, clothe, house and provide with a life that reaches at least the basic thresholds of decency. More formally, it is:

"to help people and their governments to apply their insights, skills and resources so as to develop and sustain a harmony between humanity and other components of the environment".

How? First, by drawing on the scientific knowledge and practical experience of our worldwide network of members, reaching out into 120 countries, to provide the intellectual basis for conservation and sustainable development. We need expert, authoritative, professional evaluation and guidelines. But a World Conservation Union exists to serve people: to meet human needs. The advice we give and the guidelines we lay down must be useful to the communities that interact with the environment in the real world.

Our insight and judgement have to be expressed in practical tools and methods that can be used by men and women, especially among the rural poor. We have to understand their traditions including their perception of nature, gained over the centuries, and work within their system of life, extending their perceptions by education and training.

IUCN, as a World Conservation Union, is a unique federation uniting in membership Governments, State agencies, and an immense diversity of non-governmental organizations. We have universities, natural history societies, zoos, National Park boards, aid agencies, groups pressing for protection of wild nature, groups supporting particular uses of natural products, and others beside. What unites them? A commitment to ensure that tomorrow's people are handed a world that meets their human needs but still remains beautiful and retains its immense richness of wildlife. A recognition that whatever the skills and sophistication of science and technology, humanity remains part of the world of nature and depends upon it utterly for the air, water and food that are the basic needs of existence for every living creature. A determination to challenge the folly of those who undermine the future for the sake of quick financial gains today.

No World Conservation Union can achieve any of these things without working with others. IUCN has to communicate with those it seeks

to serve — first to find out their needs, and then to deliver its products. It has to work with political leaders, Government departments and agencies, and convince them that sound conservation practices mean sound economic development. It has to work with economists, to build methods of evaluating natural resources that truly reflect their value to humanity. It has to work in partnership with other bodies like the special agencies of the United Nations and the World Wide Fund for Nature. The conservation movement as a whole has to face outwards and convince the rest of the world that its message is sound.

What specific goals should we set ourselves for the next 40 years? On 4 and 5 October we shall be holding a small expert workshop at Fontainebleau, site of the formation of IUCN in 1948, to debate our perspective of the world and agree a list of 15* short-term and 15* long-term goals (Ed. *12 goals have been selected) which, if achieved, would indicate that the world environment was being steered in the right direction. We hope that these will stand within a "Déclaration de Fontainebleau" which summarizes the responsibilities of people towards their world, in a clear and compelling way. This Declaration, with goals we must all strive for, will be published in the next issue of this *Bulletin*.

Will we succeed, in the next 40 years? We must, for these will be the critical decades for humanity. We must halt the processes of contamination that threaten the balance of natural systems and may well disturb the climate of the whole globe. We must halt the tide of extinction, eroding the earth's biological riches faster than at any time in the known past. We have to face the simple fact that an unbridled increase in human numbers is all too likely to bring an unbridled increase in famine, misery and degradation. Rejecting such misery, and fighting for a world that can support its people with dignity and equity, in a setting that is beautiful and rich with species other than our own, is a part of our duty of care. The ethic of conservation is one expression of that greater ethic of love for others implicit in all the world's great religions and at the heart of what is noblest in humanity. Our mission for the next 40 years is to convince the world that conservation, for the good of all peoples, is a central policy for all Governments.

Martin W. Holdgate, Director General

AN INTERVIEW WITH THE PRESIDENT OF IUCN: M.S. SWAMINATHAN

Questions posed by four adolescents

What is the most important conservation challenge facing us today?

It is to preserve — conserve — biological diversity. That means that we have to protect the flora, fauna and ecosystems of the world — ecosystems like the forests which are home to many plants and animals. To do this, we must also preserve their habitat — soil, water, and, of course, the atmosphere — for if the habitat of plants and animals is destroyed, they will disappear too. But there is nothing wrong in using living things such as trees as a resource, provided it is done in a sustainable way — which means taking out no more than the system can replace. It's like having \$100,000 in your bank and receiving 10 per cent interest. As long as you spend no more than that 10 per cent you are living within your income, but if each year you spend \$25,000 out of the \$100,000 and have no other source of income, in four years the money is gone. The trouble today is that the poor nations are being forced to live on their environmental capital because of present needs and population pressures, and they are destroying their biological diversity, their wealth for the future, in consequence.

There is an increase in world population and the natural environment is being destroyed to make room for more people. How can we stop that?

In the end, you cannot avoid a population policy. If there are more people than you can sustain from your own land, the only way is to import the food or fuel or cloth that you need. Some countries can do this because, although their land is desert, they have oil to sell. But if population pressures become very great, health and the quality of life are at risk. That is why the World Commission on Environment and Development, led by Mrs Brundtland, the Prime Minister of Norway, in its report *Our Common Future* emphasized the need for a sustainable balance between human populations and the natural resources which support them. It is also why IUCN has a programme on Population and Sustainable Development which advises Governments on how to link their policies for conservation and sustainable use of natural resources with policies to stop runaway population growth.

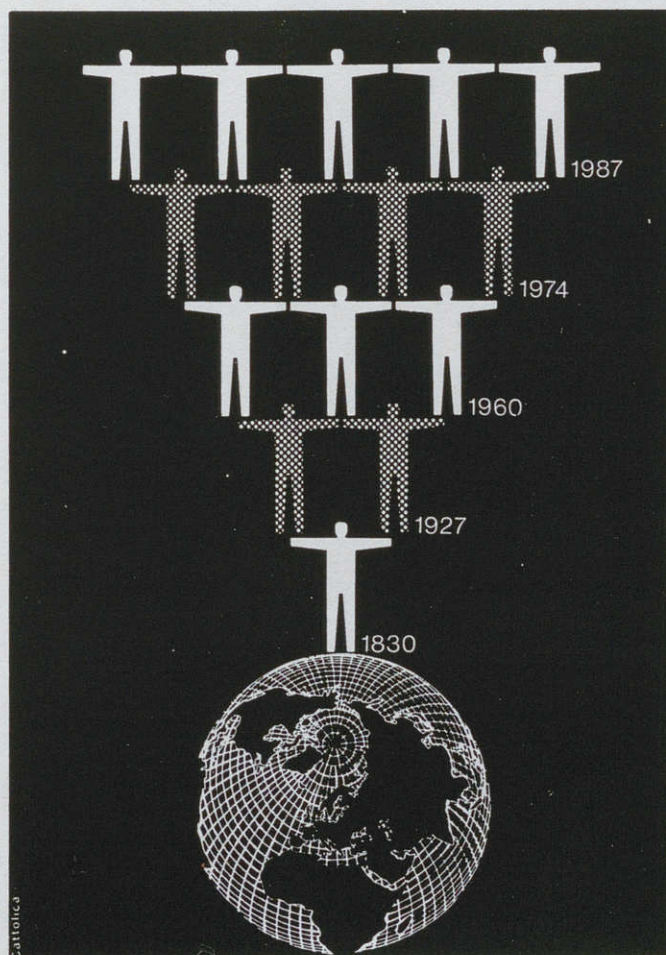
This is a particular problem for countries like yours and mine — Sri Lanka, India, China. China will have a population of 1.25 billion people by the year 2000. In my country, India, there may be between 950 and 970 million people. The average population growth rate in many parts of Africa is nearly three per cent. In the developed countries, populations are more or less stable or are decreasing. By the year 2025, there will be some 8 billion people in the world and nearly 6.8 billion will be in developing countries.

How long can this population growth continue? Will all our natural resources suddenly be used up and people be out of harmony with the land and totally destroy the environment?

There is a lot of food in the world because some developed countries can produce much more than they need. The problem is the surpluses are in one place and the needs in another. And fuelwood is even more scarce than food in many countries. Where the population is larger than the natural resources can sustain, there are many other difficulties such as a lack of drinking water, sanitation, or employment — all dimensions of what we regard as a reasonable quality of life for human beings. The need for balance and sustainability is obvious.

Don't you think that many of the problems could be lessened if people were educated?

You are right. You are all lucky you are going to a good school, you have access to good books and education, and education is certainly the key to arousing the capacity to think. Access to knowledge, access to skills — this is so important. There is an old Chinese proverb



United Nations Fund for Population Activities 1987

Coordination of interview Drake McHugh, IUCN Media Coordinator, with the participation of Pierre Portas and

Nandhi Rodrigo	Sri Lanka
Satya Rodrigo	Sri Lanka
Matt Strickler	USA
Veronica de Vos	Netherlands

that says: "If you are thinking one year ahead, plant rice; if you thinking ten years ahead, plant trees; if you are thinking one hundred years ahead, educate the people." That is one of the reasons why IUCN's Commission on Education and Training looks at the problem of generating public awareness. Through mass media — television, radio, cinema and also newspapers — we have an enormous power in terms of communication, and education and some of these media can reach out even to the illiterate. Many people in the Third World may not be able to read the Brundtland report, but if you make an interesting video tape showing what is happening to forests and why this is a threat to people, they will respond. We need environmental communicators — environmental educators — who can convey the environmental messages in a form which people understand.

The education of women is very important. In developing countries, unless a girl has an education, family planning is difficult. If the girl is educated, she has independent access to income; she can have her own job; her status in the family increases and she may feel more committed to planning when she has children. Education is important but we cannot wait for everybody to become formally literate, we must now capitalize on modern methods of communication to spread the conservation message.

Does IUCN have any special projects for the next decade?

IUCN is a World Conservation Union — what we call an intellectual power house of the conservation movement. It is a network of governments, government agencies and non-governmental organizations and over three thousand individual professionals in different parts of the world working together to promote the protection and sustainable use of living resources. One of IUCN's current projects is preparing, with the World Wide Fund for Nature — WWF — and the United Nations Environment Programme, an update of the World Conservation Strategy which the three organizations published in 1980. This document set out to explain what we were doing to our world and to give practical guidance on how we might manage the resources of our planet so that they will still be there for you and your children. Of course our understanding of what should be covered in such a document has grown and we now feel that some of the subjects, like population, need more detailed treatment. We are also working on practical recommendations to assist governments and organizations to carry out the ideas in the Brundtland report, *Our Common Future*. We have to bring these ideas down to earth — to understand what they mean for the people who need fuelwood now and have to worry about the loss of trees later; those who want to graze their animals in an area that is home to a great variety of species; those who want to breathe unpolluted air and drink unpolluted water but also want to benefit from industrial growth. These people need practical answers which we are trying to provide.

What do you see as the largest problems facing our generation when we become the so-called leaders of the world?

The biggest problem is that the world is tired. We have a common ecological destiny, but the environment is not respected. It is threatened in many ways. In your generation everyone must become part of a society that cares about conservation. So far we have touched on problems like the loss of biological diversity, soil productivity, or forests. Other enormous damage to the environment can come from the build-up of gases in the atmosphere, leading to a warmer climate and warmer oceans, and from ozone depletion. But an even greater threat could come from a very localized war involving nuclear weapons. Eminent scientists believe that this could trigger a "nuclear winter" resulting in long periods of darkness, sub-freezing temperatures, toxic smog and increased levels of radioactivity.

So the central challenge is — how do we develop a society whose roots are in conservation — in harmony with the earth? Many indigenous peoples can provide traditional wisdom and traditional methods of living in harmony with the environment. Obviously, we are not going to be satisfied with going back to live as they do, but we need to incorporate the best in their traditional wisdom. Interestingly, we often find that their methods blend readily with the best in modern science.

Dr Swaminathan, if you had to give us a report card for how well we are doing, are we C minus, B, or A?

I would say that the world as a whole is C minus. There are areas which are doing well but if I take a global average, we are losing ground. We face major, man-made global changes. We will have to address ourselves to the problems of population. Developed countries have the technological and financial resources to contain some of the problems, but they are also still creating them. And, as I have already said, most of the population — five billion out of the six billion at the beginning of the next century — are going to be in the developing countries. A vast part of humanity is going to be affected by environmental degradation, and many risk becoming environmental refugees.

So we have to step up our efforts and that is why I believe that the youth in developing countries — in my own country 300 million people are below the age of fourteen; in Sri Lanka, fifty per cent of the population is below the age of 20 — hold the key to today's conservation movement. They have to spearhead the movement to use the earth's resources sustainably. They must see that their society is a conservation society, integrating the best in modern technology with the best of traditional wisdom and traditional methodologies, and living in harmony with nature. That is why I was delighted to welcome you young people to IUCN, and have been happy to have this discussion with you.

OPENING THE DIALOGUE bulletin

His Holiness The Dalai Lama

An ethical approach to environmental protection

Professor Ilya Prigogine

Science and ecology

Mr Bernard Billaud

Culture and nature

Dr Blossom Stokes

Survival: the challenges and paradoxes of sustainable development in the Caribbean

Mr Amin Maalouf

Plenty and poverty

Mesdames Josephine Guissou-Ouedraogo and Elisabeth Meyer

Women and environment: the situation in the Sahel

Mr Roger Cans

For a management without frontiers

Dr Gerrit Vonkeman

The future of IUCN from a European perspective

Mr Antoine Bouvier

The contribution of international humanitarian law to the protection of the environment

The task of introducing this section is indeed a daunting one. Juxtaposing the diverse viewpoints of the eminent personalities who have agreed to talk to us is a delicate task. For these viewpoints cannot be compared. They are different, and reflect the plurality and diversity of the world itself.

Let us allow these men and women to challenge us and let us be attentive and receptive to the meaning of their words. Each one unfolds his or her vision of tomorrow's challenges and of man's responsibility as regression, social exclusion, and economic decline take their steadily mounting toll. They draw our attention to the depletion of the earth's resources, the worldwide scope of the problems, and the solutions to be envisaged if we are to ensure genuine dignity and equity for future generations.

An ethical approach to environmental protection

His Holiness The Dalai Lama of Tibet

It is a pleasure to accept the invitation of the International Union for Conservation of Nature and Natural resources, to add congratulations to those from around the world for the IUCN 40th Anniversary. Founded by a small group of deeply concerned people with vision, IUCN is today a unique, international institution which has expanded the vision and carries out research and work essential to the well being of life on earth, now and in the future.

Just as the members and administration of IUCN at this time look

we are responsible for, and what we will pass on to coming generations.

Clearly this is a pivotal generation. Global communication is possible, yet confrontations more often than meaningful dialogues for peace take place.

Our marvels of science and technology are matched if not outweighed by many current tragedies, including human starvation in some parts of the world, and extinction of other life forms.



His Holiness The Dalai Lama with Sir Peter Scott.

Sir Peter Scott, born in 1909, is one of the leading figures in the world of conservation and one of the principal architects not only of IUCN but also of WWF which he helped found in 1961. A celebrated artist, it was his inspired design of the panda which became the WWF logo. He is also widely known as an ornithologist. His gifts as a communicator led him to realize early on the importance of the media which he used and mobilized with great skill in the service of nature and its conservation.

Credit: Buddhist Perception of Nature/Nancy Nash.

to the future and with continuing dedication to goals, I take this opportunity to share with all of IUCN a message re-dedicated to Environmental Ethics.

The following message was originally provided for the first publication of a conservation education project called Buddhist Perception of Nature — a new member of the IUCN family this year — and dated 5 June in honour of one of IUCN's working partners, the United Nations Environment Programme and that organization's World Environment Day.

This Declaration on Environmental Ethics first appeared in the book TREE OF LIFE, produced by the Buddhist Perception of Nature. The Declaration has been reproduced in many books, journals, and newspapers around the world, and has been translated into 14 languages.

"Peace and survival of life on earth as we know it are threatened by human activities which lack a commitment to humanitarian values. Destruction of nature and natural resources results from ignorance, greed and lack of respect for the earth's living things.

This lack of respect extends even to earth's human descendants, the future generations who will inherit a vastly degraded planet if world peace does not become a reality, and destruction of the natural environment continues at the present rate.

Our ancestors viewed the earth as rich and bountiful, which it is. Many people in the past also saw nature as inexhaustibly sustainable, which we now know is the case only if we care for it.

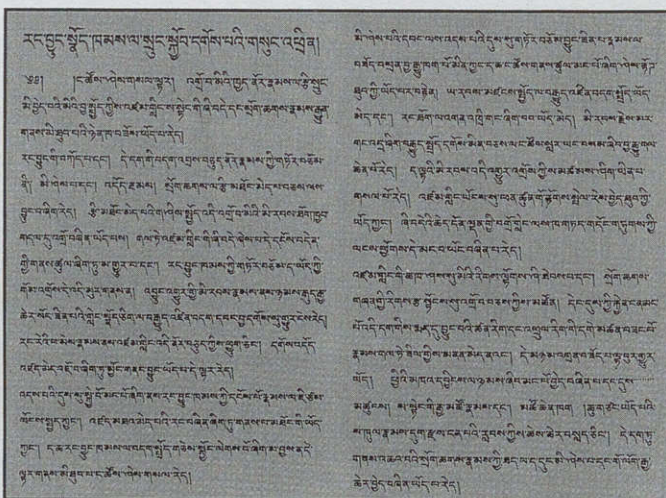
It is not difficult to forgive destruction in the past which resulted from ignorance. Today, however, we have access to more information, and it is essential that we re-examine ethically what we have inherited, what

Exploration of outer space takes place at the same time as the earth's own oceans, seas, and fresh water areas grow increasingly polluted, and their life forms are still largely unknown or misunderstood.

Many of the earth's habitats, animals, plants, insects, and even micro-organisms that we know as rare may not be known at all by future generations.

We have the capability, and the responsibility. We must act before it is too late."

Text in Tibetan



Science and ecology

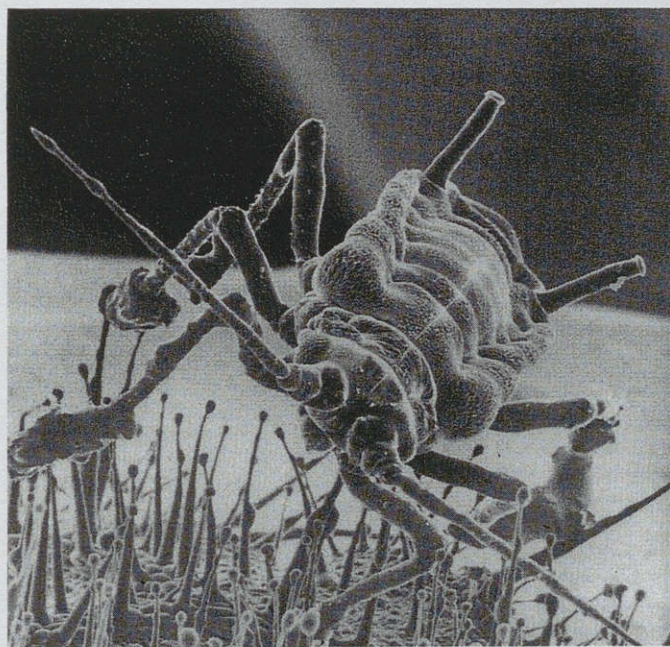
Ilya Prigogine

It is a privilege to contribute to these "Dialogues of the IUCN Bulletin", particularly at such a fascinating juncture in the history of mankind. At a recent meeting of Nobel Prizewinners with President Mitterrand, the organizers asked me to give a short talk on the subject "Coping with the future: What can we do to prevent the 20th century from transmitting a heritage of barbarism?" An immense subject indeed! My report was qualified as "optimistic". But my optimism is far from universal. This dialogue is perhaps an opportunity to develop some of the arguments in support of my point of view.

Science and Ecology are frequently depicted as being antagonistic. Science and Technology are regarded as threats to the environment or, at the very most, as means of conserving what they have helped endanger, whereas in principle, they may extend far beyond the notion of conservation.

Science provides us with new ways and means for contending with worldwide transformations. Non-linear dynamics has given us the theoretical basis for understanding the amplification of fluctuations and the emergence of bifurcations, and in so doing has shown us how small, low-energy effects may have immense consequences. This enables us to perceive not only the dangers but also the constructive aspect of our relations with the biosphere, which abounds in non-linear processes.

Simultaneously, and in particular as new means of observation have been developed, we have learned that ecosystems are prone to instability. An understanding of the instabilities of these systems and a study of the future perspectives for our planet are obviously of the highest priority. I should like to refer, in this IUCN publication, to the desertification of the Gobi and the Sahara, which occurred independently of human action. It is no longer utopian to envisage restoring these territories to their condition at the period of optimal climatic conditions by "human" means.



A hairy wild potato from Bolivia protects itself from leaf eating aphids in two ways. Tiny sticky droplets trap unsuspecting insects. The plant also produces a 'warning' pheromone, a chemical telegram that is identical to the alarm pheromone emitted by the aphids themselves. An eloquent illustration of the richness of the living world and of its contribution to the well being of our planet.

Credit: WWF/Pam Evans - Rothamsted Experimental Station.

The laws of physics were overturned in the second half of the 20th century when chance emerged at the macroscopic level. Despite the progress achieved in the 19th and early 20th centuries, probabilism was still associated with the microscopic world. And so the deterministic image was superseded by a non-deterministic vision of the world, in which the concept of probability is no longer identified with that of ignorance. This should have a profound impact on our relations with the environment, which more than ever call for a dialogue between chance and determinism.

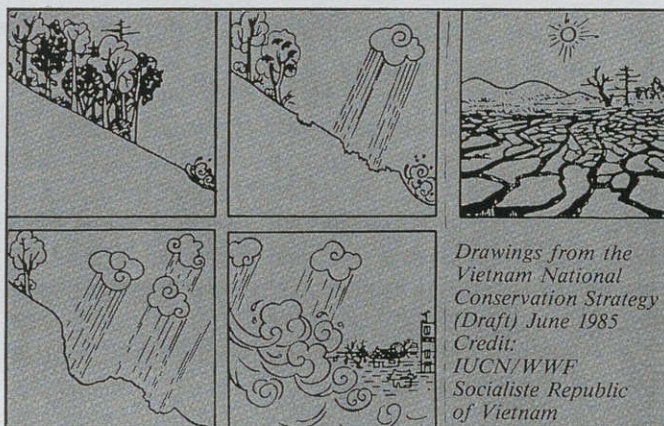
As we attempt to come to grips with these problems, what better example can we emulate than that of insect societies, which are highly successful ecologically. The disproportion between the achievements of the individual insect and those of an insect society is reminiscent of the human problematic.

Chance and determinism are essential ingredients in the functioning of a fluctuating environment such as a beehive or an ant hill. Evolution has as an effect that noise is maintained at a certain level — in communication and the control of resources — which has enabled these societies to resolve problems the complexities of which far outstrip the capacities of an insect with very limited data. The analogy with human decision, making due allowance for the characteristics peculiar to each society, is extremely pertinent. To quote Herbert Simon: "The capacity of the human mind for formulating and solving complex problems is very small compared to the size of the problems whose solution is required for objectively rational behaviour in the real world — or even for a reasonable approximation to such objective rationality". Modern physics has compelled us to revise classical rationalism, which was rooted in the conception of a static universe and in ideas such as complete information and global optimization.

As the century draws to its close, a new cultural and scientific climate is emerging and with it a new solidarity between human beings and nature. These are excellent grounds for pinning our hopes to the future, while remaining fully alert to the uncertainties and dangers of the present.

Ilya Prigogine

Director of the International Institute of Physics and Chemistry, the E. Solvay Institute, and the Centre for Statistical Mechanics and Thermodynamics of the University of Texas in Austin, Texas, USA, and Professor Emeritus of the Free University of Brussels. He was awarded the Nobel Prize for Chemistry in 1977.
Translated from French.



Drawings from the Vietnam National Conservation Strategy (Draft) June 1985
Credit: IUCN/WWF Socialist Republic of Vietnam

Culture and nature

Bernard Billaud

The relations between culture and nature are, a priori, purely antagonistic. The myth of the "noble savage" perverted by society and culture has marked us so indelibly that we are incapable of imagining the contrary. We readily conjure up a Golden Age existing before the dawn of civilization, which unbridled scientific and technical progress have invested with every virtue.

We must nevertheless reject these dreams, for fear they lull us into shirking our responsibility for the task, the task of ensuring that nature will continue to be welcoming to man and that culture will enable him to attain his full stature. If we stop to consider the duty of man at the end of the 20th century, we are obliged to admit that the two notions of culture and nature are more than complementary, they are indissociable.

When asked "What use is culture?", Confucius replied, "Culture is an integral part of nature, nature is an integral part of culture, just as stripes are an integral part of the tiger. Pluck the hairs from the skin of a tiger or a leopard and all you'll have left is the skin of a dog or a sheep."

Western tradition is more acutely sensitive to this unity. It was exemplified in Saint Francis of Assisi, the Poverello. A certain view of nature and of the creation is prolonged and echoed directly in the mystical universe, because God is present in all His works.

Yes, culture contains nothing which is not already profoundly and mysteriously inscribed in nature, not only in the nature of things, but also in the nature of man. Every creative achievement is a representation of hidden signs secreted in the heart of the cosmos. In its tireless quest, humanity constantly decodes and interrogates these symbols and discovers in them fragments of a forgotten message on which its survival depends.

Culture is a language which, while manifesting man's sovereignty over nature, faithfully expresses that hidden essence required to preserve intact the wellsprings of its primordial inspiration. Language is of vital importance to man, because it is his instrument of self-identification in the world, the tangible manifestation of his durability throughout time and throughout history, the visible affirmation of his spiritual nature.

For a language is not merely a tool, nor even primarily a means of communication between people. It is the distilled essence of culture, capable of transcending the implicit and ephemeral in nature's diversity and communicating with the ineffable.

Let us make no mistake then: when a language becomes debased and impoverished, something of man's profound insight into nature may be effaced or lost, because certain words capture the essence of the world's thought.

That is why I take such pride in the role of Commissioner General of the French Language that has been assigned to me. Viewed in this light, the Commissioner is not a policeman of the language, despite the unfortunate ambiguity of his title. According to the oldest definition, the Commissioner is invested with the special and usually temporary function of resolving certain urgent problems which justify



Illustration by Ollie Dwiggins for the Buddhist Perception of Nature.

recourse to exceptional measures rather than to the normal course of action.

Interpreted in this way, the title of Commissioner General of the French Language is a fine title, because it underscores the urgency and importance of the task, that of safeguarding an irreplaceable vehicle for interpreting and understanding nature.

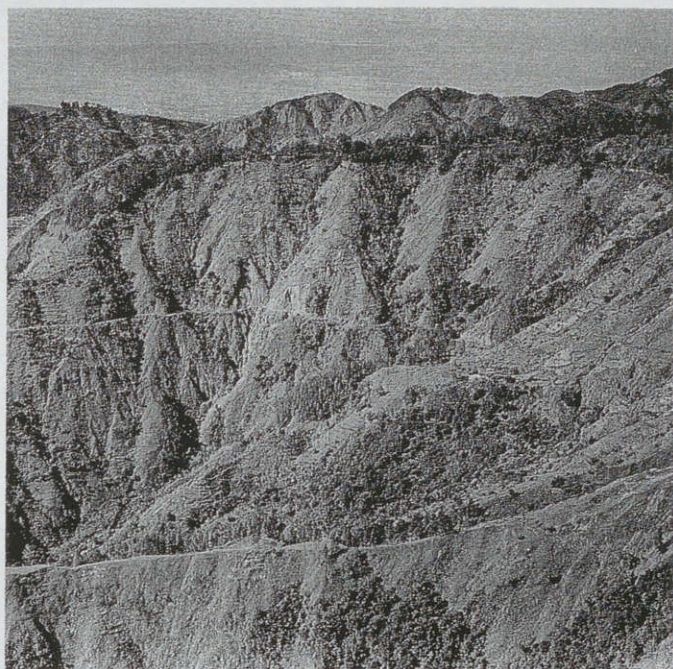
In the words of Roland Barthes, it is not language but the love of language that is in crisis. We must strive to arouse that love. Let us remind ourselves, without aggression or presumption, to what extent language is indispensable as a vehicle of thought and as a means of self-affirmation, a bulwark against the world's relentless pressures to conform. In so doing, we shall awaken the essential awareness of comradeship and solidarity with our fellow men, particularly with those who sense that if their language were to be taken from them they would be deprived of the last treasure on which their dignity is founded.

Bernard Billaud

Commissioner General of the French Language
Office of the Prime Minister, Paris
Translated from French

Survival: the challenges and paradoxes of sustainable development in the Caribbean

Blossom Stokes



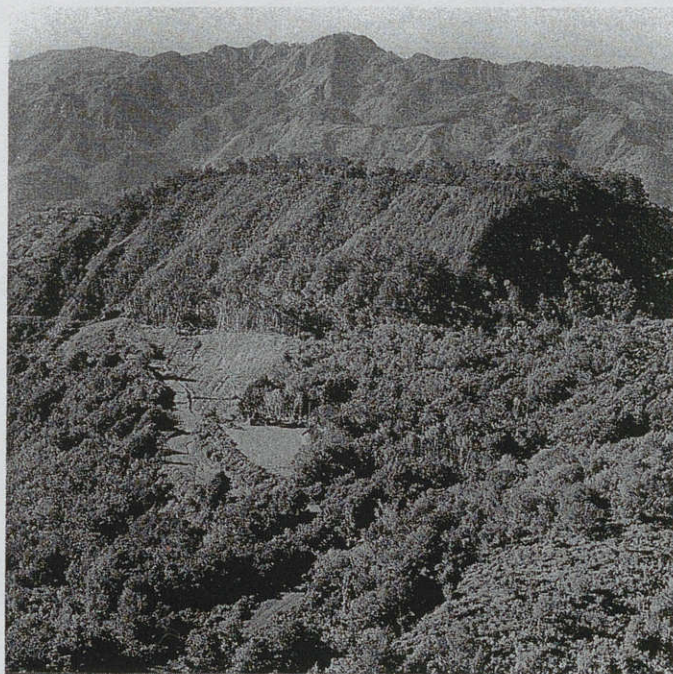
BEFORE

Devastated by erosion, this Jamaican hillside was transformed in less than 12 years.

Credits: Oberli

AFTER

Inertia spells failure. The key to success is the will to win.



The major challenges, both current and future, which relate to sustainable development in the Caribbean, when placed in the context of global economy and history are essentially similar, qualitatively, to those of any other region of the world. These challenges relate to the environment, economic and social development, human welfare, population pressures, human needs and aspirations for an acceptable quality of life. Where they differ from those of other regions is in the scale and intensity of the action which must be taken and the effort which must be expended to conserve the environment while at the same time striving for orderly and sustainable economic and social development.

An analysis of these challenges within the context of limited natural and monetary resources, relatively under-developed human capital, low per capita income, high incidence of malnutrition, inadequate human shelter, health care and education, internal migration to urban centres with the concomitant urban sprawl and creation of ghettos, under-developed physical and institutional infrastructure, threats from without such as current trends toward the dumping of industrial and toxic wastes (from industrialized countries) in the region, coupled with the formidable task of managing its own industrial, agricultural and domestic wastes, indicates that tomorrow's challenges facing the people of the Caribbean are awesome.

Attempts at economic development are being frustrated as most of the island states of the region are experiencing severe problems of deforestation (principally a result of population pressure) and of soil conservation. The effect of these upon watershed areas and ecosystems (both marine and terrestrial) is resulting as well in the reduction of vital biological diversity accompanied by depletion of unique endemism and of a gene pool at present largely unknown to science.

Paradoxes and ironies abound. Not the least is the fact that important features of our natural heritage which we may be able to offer to the world are being threatened with extinction and, in particular, that the resources which we need to manage and sustain development are experiencing negative impacts or, in some cases, serious unplanned depletion.

Bordered by Central and South America, the Caribbean region consists of a series of tropical islands of varying sizes originating from coral and volcanic activity. The smaller islands including Barbados and Trinidad form an archipelago known as the Lesser Antilles while the larger islands, Cuba, Hispaniola, Jamaica and Puerto Rico form the Greater Antilles. Further north, are the Bahamas consisting of numerous small coral islands.

The region has a population of over 23 million and is characterized by a diverse and rich cultural and natural heritage. Its inhabitants are of African, Asiatic, European and Arabic descent and in some countries the original inhabitants — aboriginal Indians — are among the populace. On the basis of language and culture the region may

be divided into English, French, Spanish and Dutch-speaking territories.

The economies of the region are based predominantly on agriculture and fisheries, tourism, mining, petroleum and light manufacturing industries. There is heavy dependence on imported capital, capital goods and raw materials. Most of the production in the region is at primary or intermediate level. The scientific and technological bases are relatively weak and present manufacturing capacity is relatively low.

Nevertheless, given the vigour of its people, the relatively abundant natural resources and rich cultural heritage, the Caribbean has enormous development potential. This potential, however, is being gradually eroded by lack of sound environmental management. Haphazard industrial and agricultural development has resulted in negative impacts on the region's coastal, marine and terrestrial resources, and on the quality of the air, all of which are critically important for sustaining the current economic base and for promoting further economic development.

The immediate and future challenges to the Caribbean focus on education, institutional development, and economic, social and resource management. One fundamental requirement is to urgently evaluate the capacities of the region's environment with the objective of analysing developmental alternatives from which those suitable for the region may be selected. Priority would be given to those alternatives

strengthening policy formulation capabilities and development planning and programming to meet both the short- and long-term needs of the people.

While the aspirations and needs of the people must always be of paramount importance, the realities of environmental capability and capacity must be continually assessed in order to ensure a sustainable development which proceeds in a measured way — lest we negate or reverse any progress which we make in pursuit of economic and social development through ineffective environmental management leading to costly and possibly irreversible environmental damage.

To this end, the interdependence of the global economy and of mankind cannot be over-emphasized. While we know what is necessary to be done we recognize that we cannot do it alone. Lasting solutions to the problems of sustainable development, human welfare and the environment is the business of all humanity. Such solutions require understanding, care, concern, cooperation and concerted action.

Blossom Stokes

Executive Director, National Development Foundation of Jamaica; Member of the Executive Committee of the Jamaican Institute of Management; Vice President, Jamaican Association for Training and Development; Chairman, Jamaica Conservation and Development Trust

Islands formed by the accumulation of living organisms are eroded by wind, rain and sea. The particles formed are scattered, carrying with them the seeds of new life.

Credit: WWF/Douglas Faulkner

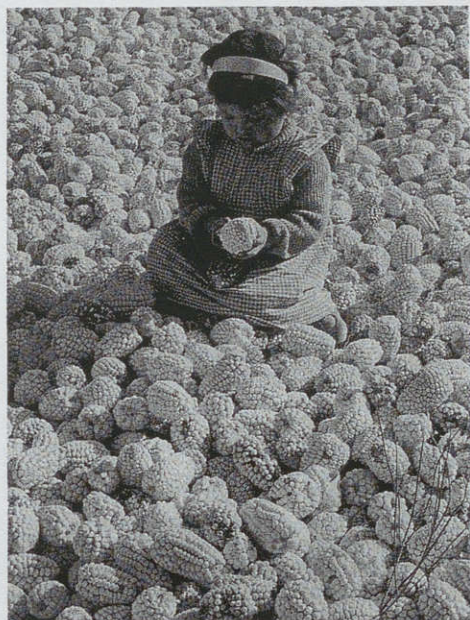


Plenty and poverty

Amin Maalouf

The conservation of nature is a new idea. Admittedly, traces of such a concept can be found in remotest antiquity among a few rare precursors. But ecological awareness, the awareness that mankind could not survive for long unless people protected the environment against human activity, technological prowess, growth, and excesses, is certainly a new idea, which has not yet gained widespread currency.

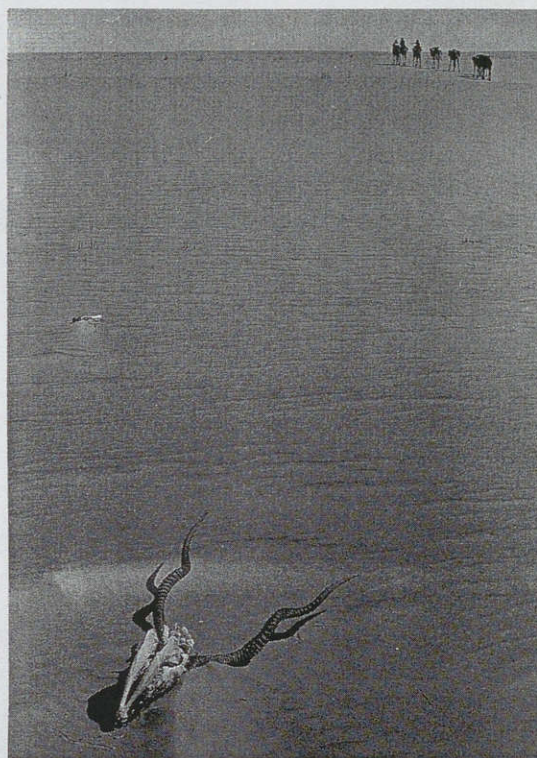
In one sense, this awareness could only emerge once humanity, or at least the most advanced part of it, had resolved most of the problems



Plenty without solidarity will never still the pangs of hunger. Credit: WHO/P. Almasy

of survival related to scarcity and found itself confronted by the unexpected and disquieting dilemma of survival in the midst of plenty. Ecological awareness caught on in spectacular and probably irreversible fashion after World War II and the years of austerity that followed in its wake. It was during this period that the industrialized countries, which had embarked on an era of economic prosperity, unprecedented material comfort and expansion, began to sense the limits and perils of unbridled growth. To put it bluntly, they began to think less about famine and more about obesity. And in every sphere: eat less food, take fewer drugs, burn less wood... This was the preoccupation of the most advanced countries. In the others, where overeating is still — for all but a tiny minority — less worrying than undernourishment, where the lack of medical care is a harsh reality, and where in global terms agricultural and industrial production are barely equal to the demand, ecological awareness is generally less acute. Some regard it, understandably albeit mistakenly, as a luxury.

I say mistakenly, because the threat to the ecology of countries of the South, as they are known today, is every bit as real as the threat to those of the North. And perhaps even more so, because the encroachment of the desert, for example, has assumed frightening proportions and is perturbing climatic conditions, exacerbating



*Ecological limbo - the skull of an Addax
Credit: WWF*

drought, and eroding soils. It is an ever-present and ever-increasing threat to the existence of entire populations, particularly in Africa. By the end of the century this scourge could well reach absolutely apocalyptic dimensions. Moreover, there is a growing body of evidence that ineffectual ecological 'restraints' may transform certain Third World countries into a dumping ground for toxic and radioactive wastes.

For these and many other reasons, it is patently obvious that developing countries cannot afford the luxury of waiting to reach the level of industrialization of developed countries before they begin to tackle the problem. Because by that time the damage will be irreparable.

In the Third World, ecological awareness must precede the age of plenty. Development must be ecological and conservationist. But this does not entail a sacrifice of speed or efficiency. Combatting waste, gigantism, and bad dietary or medical habits, preserving woodland resources and ecological balance — none of this is a luxury. It is a sound and realistic approach to development.

Amin Maalouf

Lebanese writer and journalist. In May 1988, he was awarded the Maisons de la Presse Prize for his book Samarkand (published by Lattes).

Translated from French.

Women and the environment: the situation in the Sahel

Josephine Guissou-Ouedraogo and Elisabeth Meyer

For the past fifteen years, the crisis in Africa's Sahel has made regular front page news. Initially, only the drought was regarded as a disaster beyond human control. Now, the realization has dawned that the drought has also precipitated a profound social crisis at family and village level, a political crisis at State level, and an ecological crisis throughout the entire sub-continent.

A comprehensive analysis of the situation in a Sahel village requires a different approach to ecology from that in developed countries and to women's specific role and responsibility in managing the environment in this particular context.

Our conclusion concerning the situation in the Sahel is two-pronged.

■ PEACE is an urgent and essential prerequisite: peace in the stomachs and minds of individuals haunted daily by the spectre of famine; social peace in the villages and between rural communities; internal political peace; and peace between neighbouring States.

■ There is a need for a "new social contract" which makes it possible to redefine individual and collective responsibilities in the management of communal land, the role of the State and its services, and that of grassroots communities.

In our view, it is vital that women's present role in the management of physical space and in the cultural creation of social systems be accorded full recognition.

Arousing individual and collective awareness of women's contribution to the future is the second essential prerequisite, inextricably linked to the first.

The catastrophic situation in the Sahel, a corollary of its precarious and unreliable rainfall, has been exacerbated by the prevailing social crisis.

The Sudano-Sahelian and Sahelian regions are far more prone to deterioration than the temperate regions. Climatic change or any modification, however slight, of the traditional practices of land management are capable of causing almost irreversible disruption of the precarious balance between people and nature.

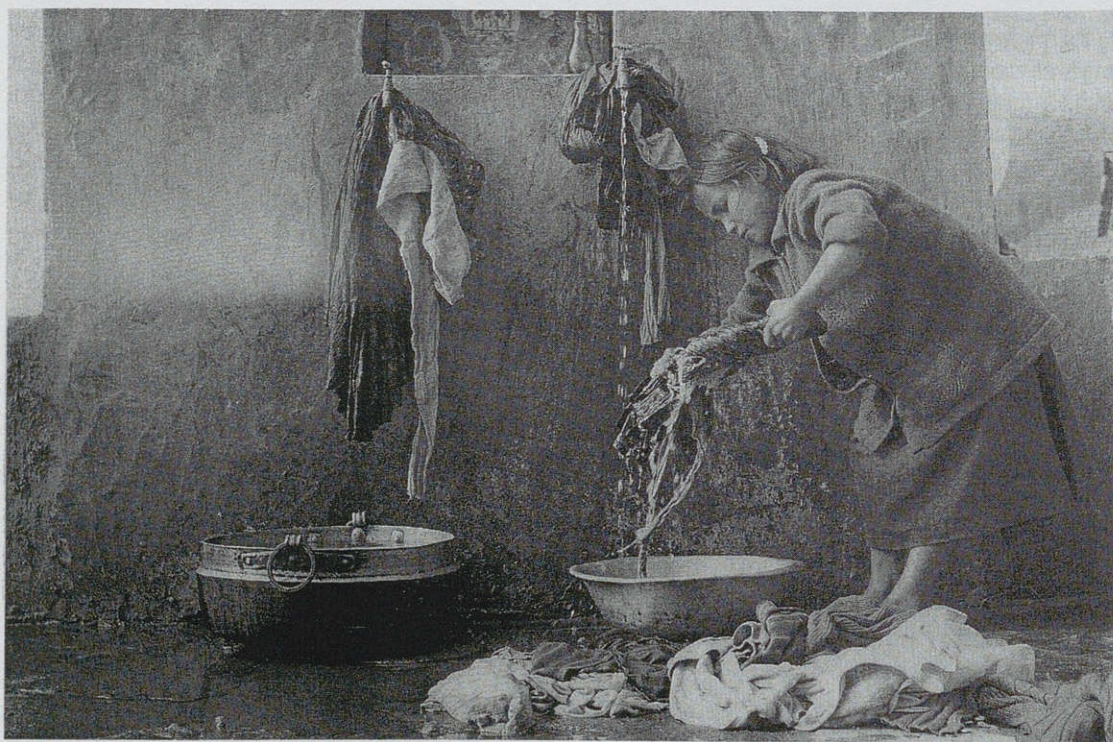
What happened in these regions between the fifties and the seventies?

■ The emergence of the cash economy led to an increase in livestock numbers in traditionally pastoral populations and particularly in exclusively agricultural communities.

■ There was the development of export crops (cotton, peanut, etc.). Furthermore, many subsistence crops were converted to cash crops in order to cater for the needs of the national urban market. This "agricultural expansion" had to contend with a doubling of the population in 20 years and a mushrooming demand from the urban areas. To respond to this demand, vast areas in the sub-Saharan regions further north were brought under cultivation and benefited from a succession of years of high rainfall.

These transformations profoundly modified the former balance at a number of different levels:

■ Land was allocated to the sedentary and pastoral populations to the detriment of the latter.



Without her, without women, forget development
Credit: UNICEF/Nepal/
Heidi Larson

■ Management of land as an "inexhaustible resource" was reflected in overgrazing, excessive felling of timber, widespread clearance of land for agricultural purposes coupled with scant provision of tree and shrub cover and inadequate provision of fallow periods to restore fertility.

These changes have had an impact on the functioning of ecological processes and were accompanied by a rapid deterioration of social structures:

■ Young men flocked to the towns to meet the community's new monetary needs.

■ The political balance of power shifted in favour of traditional agricultural communities to the detriment of herders.

■ The workload of women and young girls increased as they were obliged to travel further from the villages in search of wood and water, to tend increasingly larger areas under cultivation, and assume responsibilities traditionally borne by the young men. Women's desire for economic independence prompted them to undertake additional activities, such as small-scale animal husbandry, handicrafts production and market gardening.

■ The role of women in rural society was modified by the growth of the cash economy. In many cases, a woman's dowry made her a marketable value, an asset that had to pay dividends...

Though necessarily sketchy, this rapid overview enables us to examine the problems of ecology, the environment, and their social repercussions in different terms. In view of the present situation in the Sahel, we must treat the environmental problems as matters of the utmost urgency, by working for PEACE on a number of fronts:

Sustenance and peace: How can one talk about preserving the soil and managing communal land to people whose storehouses are empty and who are utterly destitute? Under these conditions, many young men seek their fortune in the towns, while the older ones resign themselves to their fate. Only the women, who have the responsibility of bearing and raising the children, have the necessary motivation and sufficient energy... Nevertheless, their social status is not recognized either by their fellow-villagers or by others with whom they have to deal, such as national bureaucrats, foreign experts and voluntary workers.

Social peace: Social relationships are severely strained as urgent needs exacerbate the competition for scarce assets: wood, dry season pastures, wetlands and particularly irrigated plots. As soon as the economic stakes are raised, activities traditionally performed by women are commandeered by men, usually those with a higher income or social rank, and women are relegated to the rank of manual workers.

Political peace: The transition from the vicious circle of environmen-

tal degradation which reflects the uncertain rainfall to a vicious circle of reconquest of land presupposes that the State has real powers to intervene, first in an emergency and then primarily as the driving force behind a "new social contract" for the management of agricultural and pastoral land and the preparation of strategies to counteract chance, at both village and national level. The purpose of these interventions should be to defuse the social crisis by safeguarding the interests of the underprivileged, who are the most vulnerable in this situation of crisis.

Women have a key role to play both individually in the family and as active participants in technical, political, social and administrative structures and organizations. This role should be fully commensurate with their contribution to the processes of production and social renewal. The State should ensure that this priority is accepted by the whole of civil society.

These considerations, which can be transposed to the countries of the North, make it possible to lay down a number of basic principles:

1. The degradation of our natural environment takes different forms but the most fragile areas of the planet are those most badly hit. These are the ones we know least about and for which we possess fewest means of restoration.
2. There is a total interdependence between environmental crises and economic, social and political crises. Likewise, any "treatment" of the environment presupposes the existence of a medium-term "collective project".
3. The development of the Western-type market economy has dealt a serious blow to the status of women, whose role and functions were already held in contempt in "traditional societies". Women perform essential functions and possess highly specialized knowledge. Any widespread action therefore calls for economic, political and social recognition of women's place and specificity, a place that they should insist on and occupy, in the North as well as the South.

While finer distinctions need to be drawn, the gravity of the crisis, collective ignorance, and the helplessness of individual men and women demand vigorous and urgent measures and radical changes both in North-South relations and in men-women relations so that the earth, their common heritage, might be managed more effectively.

Josephine Guissou-Ouedraogo,

sociologist, former Minister for Family Development and National Solidarity, Burkina Faso, and Head of Studies at the S.A.C.E.D. (Société des Ateliers Communs, Etudes et Développement)

Elisabeth Meyer,

*social economist, responsible for Training and Studies at "Ateliers Echanges" (Switzerland)
Translated from French.*

For a management without frontiers

Roger Cans

Instinctively, the protectors of nature strive to delimit their territory. In former times, monarchs had their guarded forests. Contemporary States have their national parks and nature reserves. But it is now evident that these sanctuaries no longer suffice. What is the point of creating the Grand Paradis park on the Italian slopes of the

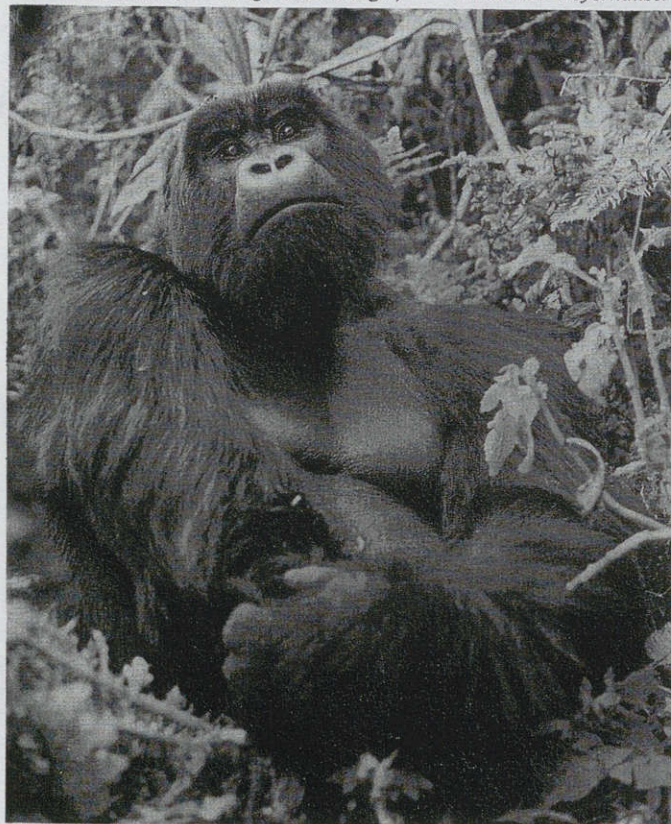


Aquatic plants such as this water hyacinth offer tremendous scope for the treatment of water and the production of fertilizers and biogas.
Credit: IUCN

The diversity of the living world is the source of tomorrow's wealth

Mountain gorilla (*Gorilla gorilla beringei*)

Credit: R. Weyerhauser



Alps if French hunters are lying in wait for ibex on the other side? Why protect the storks in Alsace if they are hunted in Morocco or ousted from their vital space by planners, promoters, and drainers of "areas considered unhealthy"?

Migratory birds have no territory, nor do seals or whales. So it's now pointless to decree, "Hunting prohibited". Hunting and management of "stocks" must be regulated on a global basis. Even if elephants or rhinoceros are herded into well-defined spaces, they cannot be saved by setting up impregnable enclosures. The trade in ivory and horns must be curtailed, and the decision-makers and public opinion the world over must be persuaded.

We have protected and conserved. Now we must learn to manage. And management of species or endangered species can only be carried out on an international scale. We seek the aid of Czechoslovakia to reintroduce the lynx in the Vosges, we look to Yugoslavia for inspiration to save the bear in the Pyrenees. We may need to enlist the aid of Japan to save the Chinese panda or that of Texas to save the African black rhinoceros. The best programmes for depolluting rivers won't bring the salmon back to Europe if it's fished to extinction in the Atlantic.

The idea of a protected area, in which we can preserve our own small natural heritage, has survived. In the national parks of America, the influx of tourists has perverted nature by turning it into an amusement park. In the national parks in Africa, the influx of poachers is transforming theoretically protected areas into a gold mine for traffickers. There are no sanctuaries any more.

Acid rain, radioactive clouds and industrial waste are constant reminders that pollution is no respecter of persons. It is pointless for each of us to erect ineffective barriers against such harmful occurrences in our own backyard. We will save ourselves together or perish together. We no longer have the choice of which species to protect. They are all necessary, because each one that disappears is an irremediable loss that takes us one step farther down the road to desertification of the planet. The international organizations have grasped that point, but all too often they fall into another trap: the diplomacy of conservation. To avoid compromising a programme under way or good relations between capitals, States are permitted to violate international law or simply international morality. And yet, nature will not be saved by "bottling it up" in parks and enclosures, nor will it be saved if every State sets itself up as the sole protector of a territory or the sole custodian qualified to manage its heritage.

Just as pollution knows no frontiers, so too the management of nature cannot be entrusted to local authorities, however well intentioned. Efforts to safeguard a species will be fruitless if they are hampered by a frontier. IUCN, CITES, WWF and UNEP are each striving within their particular field of competence to dismantle these barriers. But these organizations are too dependent on States or governments to ignore frontiers or surmount political opposition. Frontiers, being human constructions, die hard. But where our natural environment is concerned, we cannot afford to be hampered by their existence. The survival of the planet Earth will not be best served through diplomatic channels.

Roger CANS

Journalist on the staff of the French daily newspaper *Le Monde*, Paris
Translated from French

The future of IUCN from a European perspective

Gerrit Vonkeman

WHAT IS EUROPE?

I will not go as far as Bismarck, who said: "Who speaks of Europe is wrong". But some definition is necessary.

Europe can be divided into three circles. *The inner circle is formed of the European Community.* Within this circle, attention is currently focused on the completion of an open internal market in 1992.

It is not known what that will bring, but certain developments seem probable.

A substantial growth in economic activities is generally foreseen. Even if rigorous precautions are taken, this will put extra stress on the environment and lead to more energy consumption. Specialization and intensification of economic activity will continue, at the cost of the weaker regions on the periphery, particularly in the Mediterranean area. Huge sums will have to be made available to develop such regions, for example for tourism. Where the present burden on nature and the environment is already excessive, this is a cause for alarm.

Both concentration and specialization in the productive areas and alternative development of the poorer areas will increase the movement of traffic, again resulting in an increased impact on the environment.

In the euphoria of creating an open market, harmonization of national legislation, in particular regarding products, may have serious consequences. In the future, a product that has been permitted in any member country may circulate freely inside the Community. National authorities will have no right to prevent import of this product or to regulate or limit its use.

Community environmental legislation tends to be less stringent than that of the most advanced member states, so one may fear a retrograde outcome. All kinds of products will be developed and species introduced in the countries with the weakest environmental authorities. Member states that now ban importation of certain pesticides and biotechnologically modified organisms may have to admit them.

A free market for energy may further expand nuclear power generation in France and Belgium, with direct sales of electricity to energy-intensive industry in Germany and the Netherlands.

Harmonization of taxes such as Value Added Tax (VAT) could create a shift in consumption patterns which might benefit the environment: e.g. if the result were higher prices for energy, raw materials and transport and lower prices for labour and communication. But the opposite is more likely.

Finally, there is the danger that environmental legislation will not be able to cope with such developments. Until now Community legislation has been incomplete, often weak and inadequately implemented. The recent modification of the Treaty of Rome, the Single

European Act, introduces environmental protection as one of the goals of the Community in the expectation that this will guarantee a high level of protection. But there is as yet no indication that anything will change because of the slow process of producing legislation often in itself weak.

Against the background of rapidly accelerating activities to complete preparations for the open internal market within the Community, this situation has alarmed European environmentalists. It further shows that environmental protection is not a matter of legislation and codes, but primarily of political will.

Significant changes in the EEC market would also have an impact on the outside world, not the least in developing countries. Several are directly linked with the EEC through the Lomé treaties.

The second circle reaches beyond the boundaries of the Community to include the other members of the Council of Europe. These countries face largely the same environmental protection issues as those within the EEC. The pollution of some shared rivers and seas, air pollution and acidification, soil erosion, groundwater contamination and transport and disposal of dangerous substances and waste are, and will remain, paramount considerations here as well.

The widest circle also includes Eastern Europe and covers the European area of the United Nations Economic Commission for Europe. The problems mentioned before are shared by almost all of these countries but the differences in administrative and economic systems make a common solution very difficult. It is probable that new instruments of environmental policy will have to be developed.

*Nature, an oasis of peace — Swiss National Park.
Credit: WWF/F. Vollmar*



LOOKING GLOBALLY

On a global scale, environmental problems are increasing in magnitude. Some can be characterized as problems of nature protection and have been the focus of IUCN's work for a long time: e.g. desertification, destruction of forests, whaling, and the exploitation of Antarctica. Others are less familiar to IUCN, such as ozone depletion, climate change, regulation of hazardous substances and waste, development of nuclear energy, disarmament, and activities of multinationals in developing countries. All are interconnected and frequently linked with the development of the Third World.

In the World Conservation Strategy, IUCN showed that it is aware of these problems. But the report of the World Commission on Environment and Development, *Our Common Future*, indicates that the problems are wider and deeper and that IUCN and other organizations are still far from getting a grip on them.

IUCN AS A NON-GOVERNMENTAL ORGANIZATION

Environmental NGOs are like ecosystems: their stability and power to survive under difficult circumstances are determined by the degree of variety of their components. No environmental organization can ever hope to be successful alone. The environmental movement can only be powerful if it acts as a network in which the small and local as well as the large and global organizations are respected and have their place. In such a network, the larger organizations have the special responsibility of maintaining the network, to ensure that every organization can work where it is most useful and to close the gaps that remain.

FUTURE ROLE OF IUCN

IUCN is unique in several ways. It is one of the few networks that are not only global in name, but indeed have contacts also in the developing countries and Eastern Europe. Its membership composed of governments and NGOs provides an opportunity to approach governments directly, but also excludes positions or methods of opposition which are too radical.

In spite of the World Conservation Strategy as a landmark in the gradual transition from a nature protection to an environment protection organization, IUCN has remained principally the former type of organization. As such it can rely on a sound and respected scientific support and its work is of inestimable importance.

Looking to the future, however, I do not see an increased role for such an organization in Europe.

Completion of the internal market structure by 1992 while ensuring a high level of environmental quality within the EEC will be a tough job demanding active and powerful lobbying in the member-States and at the Community level. Vigorous opposition to environmentally detrimental developments, sometimes via the courts, will be needed. At the same time constructive alternatives must be presented and public awareness raised.

Neither in form nor in substance is this what IUCN is best equipped to do. But there is no urgent need either, since the environmental movement in the EEC is well organized and coordinated by the European Environment Bureau (EEB). Those IUCN members that act as pressure groups in their own countries are usually also members of EEB. The only role I see for IUCN is a still stronger cooperation with EEB.

A similar observation holds true for countries in the second circle.

In the third circle, the situation is different. The absence or weakness of genuine NGOs in Eastern Europe lends extra importance to the existing IUCN contacts with governments and governmental organizations. But this is at best a substitute. It will only be helpful if the message remains clear and an excellent coordination is established with other Western European organizations and with the NGOs (in the real sense of the word) in Eastern Europe that are struggling for their existence and often depend on the Western world for information.

As stated, IUCN is one of the few organizations that operate on the global level. Although European organizations are becoming more active, their input is still weak. Important issues explored within the United Nations family and other fora, such as protection of international rivers and seas; abatement of air pollution, acidification, ozone depletion, the greenhouse effects and soil erosion; regulation of the transport and dumping of dangerous substances and waste; development of nuclear power and the arms race; and, of course, sustainable development all deserve more attention. If IUCN could expand its role here, at its usual level of expertise and in cooperation with other organizations, it would probably be the most efficient contribution it could make.

But let us not forget that its present role is also needed more than ever before. Although I am afraid that we are not yet winning, it is wise to keep in mind the expression "Never change a winning horse"!

Gerrit Vonkeman

*Director of the Brussels Office
of the Institute for European Environmental Policy
(Bonn, Brussels, London, Paris)*

The contribution of international humanitarian law to the protection of the environment

Antoine Bouvier

The treaties of international humanitarian law (IHL) were traditionally confined to the extremely complex questions posed by the protection of human victims of armed conflicts. Only recently have they turned their attention to the damage inflicted on the environment during armed conflicts.

It was not until 1977 that the first legal rules which addressed these issues came into force with the adoption of *Additional Protocol I to the 1949 Geneva Conventions*.

Eleven years after their adoption, and notwithstanding their importance, these rules are all too often ignored. This *Bulletin* celebrating IUCN's 40th Anniversary therefore seems to me a timely opportunity to recall some of the salient features of the provisions concerning the protection of the environment embodied in the 1977 Protocol I.

Origin of the provisions

Broadly speaking, the following factors prompted States to adopt international rules concerning the protection of the environment: a growing awareness of the degradation of the environment, a realization of the threat to the environment posed by certain technical and technological developments, and the obvious transnational character of certain attacks on the environment.

As regards the protection of the environment during armed conflicts (the principal field of application of the rules of IHL), two additional factors deserve to be highlighted: first, the list of damages inflicted by the massive use of defoliants in the Vietnam War and secondly the concern to distinguish more sharply between military objectives and civil property.



Rusted carcass of a canon surrounded by vegetation destroyed by Agent Orange (herbicide), Vietnam. Credit: WWF/Elizabeth Kemf.

The combination of these various factors led to the incorporation of two provisions concerning the protection of the environment in periods of international armed conflict into the 1977 Protocol I:

"Article 35: Basic rules
(...)"

3. It is prohibited to employ methods or means of warfare which are intended, or which may be expected, to cause widespread, long-term and severe damage to the natural environment."

"Article 55: Protection of the natural environment

1. Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or which may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population.

2. Attacks against the natural environment by way of reprisals are prohibited."

The wording of these two provisions is clear. But I believe we need to take a brief look at the following points: the connection between the two Articles, the meaning to be attributed to certain terms used, and the relation between these provisions and other international rules.

The burden of inequality... when man and nature become fellow victims. Credit: UNHCR/S. Errington/11118 (Refugees).



The connection between the two Articles

At first sight, these two apparently similar provisions might appear to duplicate each other. But this is obviously not the case if one considers the place they occupy in the systematic development of the treaty and their intended purpose. Article 35, paragraph 3, is situated in the context of the methods and means of warfare and is based in particular on a fundamental principle of IHL, namely that it is prohibited to inflict superfluous damage. *It protects the environment as such* and its scope is therefore broader than that of Article 55,

which deals with the protection of the environment for the purpose of *safeguarding the survival or health of the civilian population*.

The meaning to be attributed to certain terms of Article 35, paragraph 3, and Article 55 of Protocol I

The chief difficulty posed by these Articles is the establishment of a *critical threshold* above which attacks on the environment become illicit acts or — to quote the Protocol — “cause widespread, long-term and severe damage”.

This critical threshold could not be precisely defined at the time that Article 35, paragraph 3, and Article 55 were adopted. A study of the discussions at the Diplomatic Conference nevertheless sheds some light on this question.

It is therefore apparent that the conditions of extent, gravity and duration of the damage are *cumulative*, that the duration of the damage in question should be reckoned in decades (20 or 30 years minimum), and that the damage caused on the battlefield in conventional warfare (for example, artillery bombardment) would not normally be prohibited by these provisions.

However valuable they may be, these elements of definition do not adequately address the issue. It is therefore to be feared that the lack of precision in the definition of acts prohibited by Article 35, paragraph 3, and Article 55 may, if necessary, deprive these Articles of much of their meaning.

Relation between the Articles of Protocol I and other international rules

Attention is drawn in this context to the connection which exists between Article 35, paragraph 3, and Article 55 of Protocol I and the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification adopted in 1977 by the United Nations.

Article 35, paragraph 3, and Article 55 prohibit the use of ecological warfare, namely the use of methods of warfare which severely disrupt the natural equilibria requisite for the life and growth of man and other living organisms. The United Nations Convention prohibits recourse to geophysical warfare, namely the “deliberate manipulation of natural processes” for the purpose of “changing the dynamics, composition or structure of the earth” (Article 2 of the Convention).

The types of attacks on the environment addressed in these two international instruments thus vary considerably. Contrary to certain reservations expressed at the time of their signing, these two treaties do not duplicate one another. Rather, they are perfectly complementary.



War mutilates but man, hand in hand with nature, rebuilds.
Credits: UNHCR/H. Gloaguen/15029 (Refugee camp)

Conclusion

Present-day developments in the means of waging warfare and the perfection of increasingly deadly arms are likely to culminate in attacks on the environment of unprecedented gravity. Despite their imperfections, the Articles of Protocol I dealing with the protection of the environment should still play a key role in future conflicts, by virtue of the limits they impose on the use of certain means of warfare.

The provisions can only achieve their aim on one condition: that they are respected by the belligerents. To this end, they should be widely disseminated among those most directly concerned.

The international community has invested the ICRC with the role of custodian of the Conventions and Protocols and mandated it to promote the understanding and dissemination of IHL. The ICRC strives to ensure that the rules of Protocol I (which are currently binding on only half the States) will, like those of the 1949 Conventions, soon be universally recognized.

The ICRC is convinced of the importance of the norms of Protocol I, and encourages every initiative in favour of this instrument. It was therefore particularly gratified to learn of Resolution 2 of the 16th General Assembly of IUCN, which invites the States to ratify this treaty in the near future.

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* The views expressed in this article are personal and do not necessarily reflect those of the ICRC.

Translated from French

MESSAGES



The International Union for Conservation of Nature and Natural Resources is celebrating its 40th anniversary. I should like to extend my congratulations and warmest good wishes for its future. I appreciate particularly the opportunity to convey a message to IUCN in this *Bulletin*, for Switzerland was closely associated with the birth of IUCN and since then has taken a special interest in its activities and development because the IUCN's Headquarters are located here.

As long ago as 1913, on the initiative of Paul Sarasin of Basel, a scientist and President of the Swiss League for the Protection of Nature, a Consultative Commission was set up in Bern for the purpose of urging the governments of every country to adopt joint measures to protect endangered species of animals, rare plants and natural sites. Following World War II, another President of the Swiss League for the Protection of Nature, Charles J. Bernard, proposed at an international conference held in 1947 at Brunnen, in the Canton of Schwyz, that the Union be set up. It was founded, a year later, at the Château of Fontainebleau and Dr Bernard was appointed the first President.

The Union has had its Headquarters in the Canton of Vaud since 1961. We were pleased to learn that it plans to remain here. The Swiss authorities, federal, cantonal and communal, intend to do their utmost so that the Union can continue to carry out its work under the best possible conditions.

In its 40 years of existence, IUCN has become an irreplaceable instrument. The threats hanging over our planet, its atmosphere, its oceans, and its natural resources, simply underscore the necessity for IUCN's existence.



It is many hundreds of years since the first warnings were uttered about the damage being done to the natural environment by human activities. Communities have caused pollution and degradation since the earliest times and man-made deserts are to be found throughout the world. Yet it was only forty years ago that the leading natural history and conservation societies decided to band together to form the International Union for the Protection of Nature, later to become the International Union for Conservation of Nature and Natural Resources (IUCN). Some might feel that this was leaving things rather late, others might say that it was just in time. Whatever the case, the fact is that the last forty years have witnessed the greatest and most sustained onslaught on the natural environment, and all the integrated systems that make life possible on this, our only planet, by the world's human population.

IUCN is the only international organization which brings together governments, government agencies and non-governmental organizations with the sole purpose of protecting all forms of life on earth together with the systems that make life possible on this planet.

It was soon recognized that very large financial resources would be required to achieve effective conservation and, not many years after the founding of IUCN, the World Wildlife Fund was established — later to become WWF — World Wide Fund for Nature. From the very beginning WWF set out to become IUCN's closest partner and the two bodies have shared a common headquarters for many years. All the WWF National Organizations are encouraged



It was in 1948, at the Fontainebleau Conference, that the International Union for Conservation of Nature and Natural Resources was founded on the joint initiative of Unesco and the Government of France.

Since then, the world has changed. Ideas, problems, and the balance of forces that dominate current developments have undergone radical changes. International cooperation has assumed a vastly different character and breadth. But the conservation of natural resources is a more burning issue than it was at that time. The pressure exerted on the soils, the effects of pollution, and the risks of global climatic changes have only exacerbated the problem of preserving our natural heritage.

At the same time, a new consciousness has dawned, a consciousness of the need to preserve our environment and of its fragility. The development of IUCN is very revealing in this respect. It is no longer a small group of pioneers in the protection of nature, or a handful of scientists fascinated by botany and zoology. IUCN has become a complex organization active in over 120 countries with 60 member States. It has acquired a major role and responsibilities and ranks among the leading international organizations. Unesco can be justly proud of the organization it helped bring into being.

The fraternal relationships between Unesco and IUCN have grown into close and constructive collaboration. Unesco can now count on IUCN and its network of scientists in the implementation of the action plan for the biosphere reserves and of the Convention Concerning the Protection of the World Cultural and Natural Heritage.

Action concerning biosphere reserves attempts to reconcile conservation and development. By striving to establish a network of zones that include areas devoted to the conservation of biological diversity and those where rational use is made of natural resources, Unesco and IUCN are helping erect solid bastions for the future.

The World Heritage Convention is an unrivalled instrument for ensuring the preservation of our common heritage, both natural and cultural. It establishes a duty to protect and a shared responsibility for that heritage now considered

Today, we simply cannot do without the scientific studies of its Commissions, its continuous monitoring of the environment, its databases, its contribution to the progress of international law on the protection of nature, its contributions to education and training, to increasing public awareness, or to its commitment to protection of species.

The Union's World Conservation Strategy and the national strategies derived from it make an appreciable contribution to the definition of environmental policy, particularly in the Third World. Many developing countries whose natural resources are in jeopardy rely on the help of the Union. In an increasingly interdependent world, equipping IUCN with the necessary resources and means of action is no longer simply a question of solidarity, it is a question of survival.

We owe a debt of gratitude to the International Union for Conservation of Nature and Natural Resources for the results it has obtained over the past 40 years.

I fervently hope that it will continue and expand its activity in the years and decades to come for the good of the natural world and therefore for the good of us all.

Otto Stich

President of the Swiss Confederation

Translated from French

to become members of IUCN, so that the whole WWF family can both contribute to, and benefit from, the work of this unique world organization.

I believe that it has been a most fruitful relationship. IUCN, UNEP and WWF worked closely together in drafting the World Conservation Strategy and they are presently engaged in producing a companion volume to be published in the 1990s. The same partners have cooperated in the establishment of the World Conservation Monitoring Centre and WWF has supported the creation and operation of the several very important international conventions dealing with particular conservation issues, of which IUCN was the principal author.

I have no hesitation in saying that without the knowledge, experience and expertise represented by the membership of IUCN, it would be quite unrealistic to suppose that any effective and lasting conservation could be achieved. I understand that IUCN has recently adopted "The World Conservation Union" as a working title. That is a very apt description and I know that everyone involved in the work of WWF joins me in congratulating the Union on what it has achieved in the last forty years and to wish it even greater success in the challenging years ahead.

HRH The Prince Philip, Duke of Edinburgh

President, WWF International (World Wide Fund for Nature)

to belong to humanity as a whole. Where natural heritage is concerned, IUCN plays a fundamental role in implementing this Convention. It evaluates the characteristics of a site with a view to determining whether it merits inclusion in the World Heritage List. It ensures the monitoring of sites once they are included in the List, and helps Unesco provide assistance to States who appeal for aid in preserving these sites. At present, there are 77 natural sites on the World Heritage List, which includes 288 sites in all. The Château of Fontainebleau is on this list and in this respect the commemoration of the Fontainebleau Conference takes on a symbolic value. The two programmes are complementary, because many of these sites are also biosphere reserves.

In this way, Unesco and IUCN constantly coordinate their endeavours to promote the conservation of nature and its resources and the search for sustainable development. But they also reflect on the meaning of this action. What should be conserved, why, how and by whom? The seminar to be held at Fontainebleau on 4 and 5 October next will help provide answers to these questions.

What kind of world will we bequeath to succeeding generations? We have an inescapable responsibility towards these generations. We and only we must decide what kind of environment we shall transmit to them. They are in no position to tell us what their needs will be nor what they feel is lacking. But they will hold us responsible for what we have done for them, for better or for worse.

Federico Mayor

Director General

United Nations Educational, Scientific and Cultural Organization (Unesco)

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