

CONSERVING ONE EARTH – A LOOK AT WORLD CONSERVATION

F VOLLMAR

*Director General
World Wildlife Fund
1110 Morges
Switzerland*

It is a great pleasure to join in this symposium held on the occasion of the 50th Anniversary of the National Parks Board of South Africa. I am deeply honoured to have been entrusted with presenting the Keynote Address to the symposium, which brings together those responsible for conservation in southern Africa, and I come here representing both the World Wildlife Fund and its sister organisation IUCN, the International Union for Conservation of Nature and Natural Resources.

Having considered contents of the programme before us, I have felt it appropriate to talk on the subject of “Conserving One Earth”. First I wish to look at our Earth as we find it today and then discuss the role of conservation both as a tool for wise development and in ensuring that wild things and wild places can continue to contribute to our quality of life.

Our finite world

We are living on a small and finite planet with limited resources which must be carefully managed if we are to survive. I believe that we can, and that we will survive, but urgent action is called for if we are to avoid ecodisasters and the irreparable loss of unique resources. This demands closer co-operation between nations and is fast becoming the imperative which decides the course of international affairs. Conservation has become a global task.

Man has been slow to recognize the limits of growth, but the vision of the Earth seen by the astronauts from the surface of the Moon brought our situation into focus. Describing his experiences, Neil Armstrong, the first man to set foot on the Moon in 1969 said at the Second International Congress of the World Wildlife Fund in London the year after:

“To stand on the surface of the Moon and look at the Earth overhead is certainly a unique experience. Although it is very beautiful, it is very remote and apparently very small. We have all been struck by the simile to an oasis or an island. More importantly,

it is the *only* island that we know is a suitable home for man. The importance of protecting and saving that home has never been felt more strongly. Protection seems most required, however, not from foreign aggressors or natural calamity, but from its own population.’

We already recognize that we must conform to a spaceship economy, realizing increasingly the need for action to manage our limited resources wisely and to avoid wasting them unnecessarily. The theme “Only One Earth” was taken for the United Nations Stockholm Conference on the Human Environment (1972), and governments have since been involved in a spate of international action to work out the ground rules for survival on this small planet which is our only home. The Earth can only support a finite number of people, can only meet the basic requirements – without counting the social or cultural aspirations – of a restricted world population. We must face the fact that our world has a limited carrying space – and this for all its inhabitants, including on top of all life chains – Man.

Already it is clear that we are closing in rapidly on these limits at breakneck speed. Analysis singles out two root causes: the continuing increase in world population and, in parallel with it, the rising demand for goods ultimately depending on natural resources and energy. In short, the rising per capita consumption. What makes these developments so alarming is that they are not slowing down but rather are increasing ever more rapidly – at an exponential rate. Let me illustrate this with some figures.

First the *human population*: It took many thousands of years until the world population reached the first billion in 1800, and little more than a century to reach the second billion in 1930. Since then the population has doubled again to reach four billion in the course of 1976. At present rate of growth of about 2% per annum, we will have about seven billion by the end of this century – which will be in less than 25 years, still during the lifetime of many of us alive today. And in another generation, the world population will double again.

What do these figures really mean? That while I am talking here the net world population increases by two people every second, which means some 200 000 people by the end of today, or six million people every month. That if the whole of southern Africa were empty of people now and the “excess” population of the world were to be settled here, it would take under one week to build up a town like Johannesburg, and just about eight months to reach the present total population in the ten countries of southern Africa.

Then the human demands – both the basic demands for survival and the just demands of peoples with rising aspirations seeking an adequate quality of life – the demands of this rapidly increasing population must be met from our *land and sea* and their natural resources. Unfortunately these resources are not elastic and as we increase our demands on some

of them, we pass through thresholds above which irreversible damage can ensue. This is manifestly true of the marginal lands. Let me quote some examples relating to specific bio-regions of major habitat formations.

The *tropical rainforests* are perhaps the most valuable of our forests but they are also the most fragile. And yet 40% of these forests have been destroyed already and the rest are being devastated at a breath-taking rate. The Food and Agricultural Organisation of the United Nations (FAO) estimates that 100 000 km² of tropical rainforest will be destroyed this year, and this may well be a gross under-estimate. Observations by U.S. Skylab satellites published last month indicate that 100 000 km² of such forests were destroyed by criminally wasteful slash-and-burn practices in the Amazon basin of Brazil in 1975 alone. Professor Paul Richards is quite categorical in stating that "unless present trends are reversed, virtually all the world's rainforests will disappear in 20 years".

Takings *grasslands* as another example, the situation is not much more encouraging. The industrialized world in temperate regions takes a heavy toll of arable land for new townships and other developments necessary for more and more people year after year. As burgeoning populations seek more food, marginal lands are coming under increased pressures, also in tropical regions, and the soil suffers from misuse and inappropriate agricultural and animal husbandry techniques. Overstocking and over-grazing impoverish vast land areas, denuding vegetation cover exposing soil to erosion by wind and water, and resulting in "desertification".

To quote but one example from the African continent: in the Sahelian zone south of the Sahara, due to a combination of circumstances including direct influence by man and his livestock, the desert is known to advance at an average rate of three to five kilometres during a normal year, and to have progressed in periods of extreme drought as from 1972 to 1974, by about 30 to 50 kilometres a year – and this on a front of several thousand kilometres almost across the continent.

Going further to the *wetlands*, it has become clear that they are the most endangered biotope in many temperate zones, and certainly in western Europe. Overall figures to illustrate the magnitude of the destruction of wetlands, which have been aptly described as "Liquid Assets" but which are still regarded all too often as "wastelands", are not readily at hand. From my home country Switzerland I know that in the last 150 years about 90% of the wetlands have been destroyed in the process of "civilisation". It is significant, therefore, that the Council of Europe thought it necessary to declare 1976 as the Year of the Wetlands, and to launch a continent-wide campaign to raise public awareness, support and action for wetlands conservation.

However destruction does not stop at the beaches. While the *oceans*, which cover close to three quarters of the surface of the globe, may have seemed to be inexhaustible, we now know better. Most of the oceans are

almost desert, and fisheries are concentrated mainly on the continental shelves which receive the major impact of human activities in terms of waste and thermal discharge, dredging, mining, and coastal destruction. The world fish catch which has grown 15 times since the beginning of the century seems now more difficult to increase, and in many places, commercial fisheries are actually declining, both as a result of over-exploitation and of pollution. What could illustrate the state of affairs more drastically than the observation of the Norwegian explorer, Thor Heyerdahl, who when crossing the Atlantic in 1970 from Africa to America on a raft in 57 days, sailed for not less than 43 days through waters which in his words were "polluted with oil slicks and lumps of solidified oil". And since then the risks have increased, with the size of the world's oil tankers, the "superships" (to use the title of the eye-opening recent book by the South African born author Noël Mostert), rising already to more than 500 000 tons, which make the "Tory Canyon" of the 1960's look like a children's toy.

These massive attacks on habitat have reacted adversely on the creatures with which Man shares the Earth: the *wild flora and fauna*. Human pressures have multiplied with the facilities and tools provided by modern technology: means of transport and communications, sophisticated machinery and weapons. As IUCN puts it in a recent publication:

"The 19th and 20th centuries have witnessed an "explosion of extinctions" of wild species of animals and plants: 75 bird species in the 19th century, 53 species so far in the 20th; 27 mammal species in the 19th century, 68 species so far in the 20th. In addition, 345 bird species, 200 mammal species, 80 species of amphibia and reptilia – and between 20 000 and 25 000 plant species – are threatened with extinction . . ."

This process of decline and endangeredness is not limited to species which have always occurred in relatively small numbers or in confined areas only, as may be the case with the Giant Sable Antelope *Hippotragus niger variani* in Angola, for which there is now such great concern. Although it is not easy to draw the line between "plentiful and safe" and "rare and endangered", it is clear that in Africa a number of wildlife species which a few years ago were regarded as "common", now face an acute threat to their continued existence. As an example, we may refer to authoritative reports received in the last few months from Kenya. It seems that as a result of indiscriminate poaching and general slaughter of unprecedented proportions, such species as Grevy's Zebra and the Reticulated Giraffe, and according to some reports even Burchell's Zebra and the Masai Giraffe, are already in the danger zone. These few examples illustrate the way how Man, in the last decades, has treated and is continuing to treat his natural heritage, his environment and resources, the natural world on which his survival depends.

Conservation for Development

Must we conclude that the earth's resources will be sucked dry, its forests despoiled, its wetlands drained, agriculture carried on in oases between the all-pervading desert and the concrete jungle of a continuous web of conurbations, the seas barren and polluted, with mankind clinging to the wreck of a plundered planet? I say no. Emphatically no! The position of man on our planet *is* serious, but I am sure that we can avert disaster.

However, time is not on our side, and if something is to be done, it must be done *immediately*. Furthermore, it will involve a *radical change* towards nature and life. Either Man – and this means all of us, you and me – is determined to take decisive action, or we must forget about the future progress and well-being of mankind, our children and our grandchildren. I do not speak of “future generations”, because that presupposes a time scale we may not have available to us.

The first essential is to slow down the run-away increase in human population. This population “explosion” is undoubtedly at the root of our problem. We must go back to basic questions and ask about the aims of mankind, and our aspirations. If we continue to multiply, we condemn a large part of human kind to penury and want, with no prospect of achieving aspirations higher than a miserable existence, and little hope of attaining human dignity. Our aim is absolutely clear: to bring the human population into equilibrium with the natural resources of our one Earth. This is a universal goal and obviously its urgency and the manner of its implementation will vary and will have to take into account *differences* in local conditions and cultures. Few countries have achieved this aim, which is concerned with survival and quality of life – it stands above the question of gaining votes or more clients.

The second essential implies a knowledge that the earth's *resources* are finite and that natural ecosystems are sensitive to disturbances and pollution. It is a matter of wise management to ensure that the non-renewable resources will last as long as possible or as long as may be required to satisfy human needs, and that the renewable resources will remain renewable for ever, providing a continuous sustainable yield. This, in fact, is the true goal of conservation and why we claim that conservation is a tool for wise development.

Conservation involves applying the principles of the science of ecology through good stewardship; it is “housekeeping” on a global scale, and the very simple leitmotif for all human activities can be stated as to keep the Earth – our only home – in order. Having thus related ecology to economy (which used to be my domain before joining conservation) I would also say that man has to see natural resources as a capital which must not be touched, or at least be made to last, and that he has to learn to live from the interest of this capital without destroying or wasting the substance.

The characteristic of renewable resources is that they can, in fact, be

used for the benefit of man without danger to their existence for as long as such use is “wise” or “rational” and is governed by the principle of sustained yield. This principle is by no means new, it has been the centrepiece of forestry, at least in temperate zones, for a very long time already. For instance in Switzerland, the first Federal Forestry Law, introduced exactly 100 years ago in 1876, stipulated as one of its iron rules that all forests were to be protected and were to be managed so as to be maintained indefinitely, and that if any forest area was cleared for other purposes (which could only be done with government permission) an equivalent area of land elsewhere had to be devoted to forestry and planted with forest trees immediately. Just think what the world forestry situation could be today if this principle had been accepted everywhere a hundred years ago – or even if it were strictly applied today!

Unfortunately many countries continue to waste their *natural* forests, either in ignorance of the disastrous consequences or, after closing their eyes to future problems, greedily pursuing short-term gains. Worse still, they may be undertaking such irresponsible exploitation practices on the advice of aid agencies or specialization, failing to see the problem in the total long-terms perspective of local conditions.

The essentials for wise management of resources are clear. The IUCN has stated them in a publication entitled “Ecological Principles for Economic Development” and has formulated a series of ecological guidelines for planners and decision-makers operating in diverse fields. Scientists and conservationists know how to proceed in a variety of situations to prevent further decline and eventually to improve and redress the problems I have referred to above.

Moving from means of solving the problems referred to above involves other factors – human attitudes, often tainted by culture and religion, and all sorts of taboos, frequently linked with ecological – and also economic – misconceptions. Application of these principles and guidelines – referred to as ecodevelopment – involves decisions by governments and, at the same time, involves the co-operation and support of the people. It is a difficult task to get the conservation message to people, to the public at large and particularly to those who form opinions and those who are responsible for decisions. This remains a major challenge to all who work in conservation today and must be one of their main preoccupations. Conservation can only succeed if supported by people – and people can only be expected to conserve what they love, and to like what they understand, and to grasp what they know.

As I have said earlier, this involves a reappraisag of our attitudes and a change in public opinion. I am greatly heartened to see so many people already vigorously on the move in this direction, and particularly the interest being shown by youth. Conservation has caught the attention and struck the sense of responsibility of young people as world citizens in many regions.

I have always felt that education holds the key to conservation and that therefore our hope in conservation – to the only, but surely the best hope we have – is youth. If we succeed in winning the support of young people today, or if in a way they decide to join the conservation camp themselves, we can at least be sure that conservation will be in good hands later, because amongst them are the leaders of tomorrow. The snag is that education obviously means thinking in terms of generations, which means that results cannot be expected quickly.

The immediate action – and action is clearly urgent – must come from the decision-makers. They must be convinced and made aware that conservation is a valid tool which is viable in economic and social terms. They must be brought to see that to neglect conservation is to risk failure, certainly in the long term and often in the short-term, in achieving their stated objectives of national development. And you who are so deeply involved in conservation action, who already have the necessary knowledge and skills, must make yourselves responsible for providing them with advice, information, critical comment and scientific support. I feel that it is no longer good enough to speak about the four pillars of conservation which are: ethics, aesthetics, science and economics. If those in power are open to ethical, aesthetic and scientific considerations – as in fact they are in certain countries here in Africa as elsewhere – fine! If they are not, and I am afraid this seems to be so in the majority of countries, we have to put all our efforts into making the fourth pillar – economics – support the entire structure. We have to assemble and appropriately present all the arguments which demonstrate that conservation *is* an economic proposition, is – long term – the best form of land use and of rational exploitation of the natural resources of our world, is in fact the only chance for the survival and well-being of mankind on our “Blue Planet”.

We have to try and not only evaluate, but quantify the value of natural landscapes, forests and other resources including wildlife. We have to spell out the economic benefits of conserving them and we have to give solid reasons to convince politicians and business leaders of the necessity of refraining from unconsidered exploitation now in the interest of long-term management and continuing greater returns in the future. We have to tell them that in 25 years time they will have transformed the tropical forests of the Amazon Basin and other key areas from a “green jungle” to a “red desert” and that they will have no timber and wood to keep their factories running – and keep their people employed. We have to tell them that if they continue to overstock marginal land with cattle, there will be no pastures for their stock nor food for their children. We have to cry out that unless they stop polluting, mining and dredging the oceans there will soon remain but one endangered marine habitat – the sea itself, and that they will finally destroy this source of food and life. We have to convince them that if they continue to allow the present wholesale slaughter of wildlife in some

countries of Africa, Asia and Latin America, there will soon be no wildlife left and that mankind will be deprived of another invaluable asset and source of income and the world will be that much poorer also economically.

This rape of our planet, this war against nature – our mother Earth – and the present dangerous, totally unrestricted development, must be subjected to objective and effective control. I am *not* advocating stopping development but making a plea for the right kind of development, the kind that means providing continuously for tomorrow as well as today. There must be a medium, a happy medium, between “automatic” growth and the “small is beautiful” attitude of environmental dreamers or extremists. We believe that through the wise use of our resources, through the application of conservation principles, we can ensure the survival of man on earth and maintain an adequate quality of life for all mankind.

International Conservation Efforts and the work of the World Wildlife Fund

Let me now turn to conservation action in the traditional sphere of safeguarding wild things and wild places – the conservation of nature itself. This topic is of special concern to the present symposium but I have felt it necessary to place it in the context of the world situation since we must, above all, take cognizance of the prime determining factors affecting mankind as a whole and the destiny of nations.

Conservation of nature emerged as a concept during the last century. One significant event might be regarded as the beginning of conservation as a new aim of mankind: the establishment of the Yellowstone National Park in the United States in 1872 – the first national park in the world. By the turn of the century there were some 20 national parks or equivalent reserves, amongst them, I am happy to say, no less than four in South Africa: the Hluhluwe, Umfolosi and St. Lucia Game Reserves, all established in 1897, and the Kruger National Park, established as such in 1926, but having as its nucleus the old Sabi Game Reserve, the first government game reserve declared in Africa, gazetted on 26 March 1898.

The establishment of these early conservation areas was usually prompted by non-governmental conservation circles, and the role of private initiative in conservation has not diminished since. And, in my view, such enthusiastic and devoted people will always remain the leaven of the movement.

On a national level conservationists started uniting towards the end of the last century, amongst the first organizations being the Wildlife Society of Southern Africa, which can trace its origins to 1902 when Wildlife Conservation Groups were formed first in the Transvaal and shortly afterwards in Natal.

International action followed, again on private initiative. The first to have formulated the idea of conservation in the wider context of maintenance and enhancement of nature as a whole and on an truly international level was the Swiss naturalist and scientist, Paul Sarasin. He first used the expression "world conservation" in the publication "Weltnaturschutz" in 1910. He prompted the government of Switzerland to convene the First International Conservation Conference in Bern in 1913, an initiative that was stultified by the outbreak of the First World War one year later.

In 1928 another private naturalist, P J van Tienhoven, founded the International Bureau for the Protection of Nature in the Netherlands as an international documentation and coordination centre, which is now incorporated in IUCN at Morges. In 1933, at the invitation of the Government of Great Britain, an international conference took place in London which led to the signing of a "Convention Relative to the Preservation of Fauna and Flora in Their Natural State", known as the *London Convention*. This convention was concluded between the leading European countries of that time and Egypt, South Africa and the Sudan. It provided encouragement for the establishment of national parks and nature reserves, for the protection of threatened species listed in an appendix and grouped in two categories according to the degree of their endangeredness, and for regulations for hunting and traffic in trophies and skins.

The years following the London Convention were not particularly "productive" with regard to the conservation of areas and species. On the other hand, it has to be said in retrospect today that they were not particularly destructive either. They were probably just about the last period to which one might refer as the "good old times". These times, and with them the still rather young international conservation movement, came to an end with the outbreak of the Second World War in 1939. In 1946 on the initiative of the Swiss League for the Protection of Nature a first informal meeting between representatives of seven countries took place in Basel, Switzerland, which agreed on the objective of establishing an International (World) Conservation Organization. This was followed by a larger conference in Brunnen, Switzerland, with the participation of delegates from 24 countries, which resulted in the establishment of a provisional international organization.

Internationally speaking, apart from these few early initiatives which soon fell victim to the two world wars, conservation really started only after the Second World War. It was at the conference at Fontainebleau near Paris in France, convened by the French Government under the auspices of UNESCO, and very much at the initiative of its first Director-General, Sir Julian Huxley, that on 5 October 1948 the International Union for the Protection of Nature (IUPN) was created, which changed its name in 1954 to *International Union for Conservation of Nature and Natural Resources (IUCN)*. With IUCN the world had for the

first time a truly international conservation organisation, private and non-governmental, but world-wide in its scope and activities.

Henceforth the history of world conservation has been closely linked with the work of IUCN and there have been virtually no international initiatives and achievements which were not originated or promoted in a decisive way by IUCN.

Special attention was given to conservation in Africa and in 1960 IUCN, in cooperation with FAO, UNESCO and the Commission for Technical Cooperation in Africa/Scientific Council for Africa South of the Sahara (CCTA/CSA), launched its African Special Project (ASP) designed to draw attention to the unique natural and wildlife heritage of the African continent at the time that Africa was undergoing vast political change. One focal point was the conservation conference at Arusha in Tanganyika, now Tanzania, in 1961, which formulated recommendations of far-reaching effects for the establishment of national parks and reserves and the conservation of wildlife. As a result the United Nations Development Programme (UNDP) decided to contribute through FAO to the implementation of these recommendations.

This generation of interest in nature conservation at top levels of government resulted in the conclusion in 1968 of the Convention on Conservation of Nature and Natural Resources in Africa, the *African Convention*, which is a charter for conservation in all its aspects.

After its first decade, IUCN realized the need for widening the base for conservation endeavours so as to build public awareness and to raise funds and other material support for conservation. In 1961, a small group took preparatory action and on 11 September 1961 the *World Wildlife Fund* (WWF) was launched "to help save the world's wildlife and wild places", charged with the twin tasks of publicity and fund-raising. In the 15 years of its existence the organization has grown in strength and impact on the world conservation scene. The WWF is now represented by its own National Appeals or Regional Associates in 26 countries, including the South African Nature Foundation, established here in South Africa, but covering in fact the whole of southern Africa. These National Appeals have many thousands of members, friends or supporters from very walk of life helping to spread the conservation message and to raise funds, amongst them people with names in business, finance and public life in general. Together, they form a powerful army which contributes significantly to the crusade of man for nature.

The WWF has been particularly concerned with young people and wildlife youth movements have been set up by many of the National Appeals. It has helped to form wildlife and nature clubs, initiated by young people in Africa and other continents, starting with the Wildlife Clubs of Kenya and the Chongololo Clubs in Zambia, and spreading to other countries in Africa, e.g. Cameroon, Senegal, Tanzania and Uganda, and most recently having reached India. The WWF concluded

an agreement with the World Scout Movement some three years ago, which brought into the camp of conservation the mighty following of this organization, over 15 million young people grouped in national associations with regional and local groups in 105 countries around the world, who are prepared to promote conservation.

Already the impact and contribution of young people to world conservation are remarkable: in Switzerland it was youth who made the local WWF National Appeal's campaign "Pro Natura Helvetica" the biggest awareness and fund raising success ever in the history of my country. In South Africa the most imaginative drive of the SA Nature Foundation for the establishment of nature reserves in the Great Karoo would not have been possible without the active participation of youth. The WWF owes the increasing success and impact of its three last major campaigns for the Flamingos of Lake Nakuru in Kenya, for the Tiger in India and other countries of Asia, and for the Rain Forests of the Tropics to the young people in the campaign countries.

It is with particular pleasure that I welcome the initiative of the Wildlife Society of Southern Africa to hold in parallel with this "main" Symposium a special Conservation Education Symposium here at Skukuza, and, on behalf of the World Wildlife Fund, I wish the organisers and participants a flying start and full success in their most important endeavours. I take this opportunity to make an appeal to the participants of the Education Symposium and through them to the youth of the world: be alert to learn from the mistakes we have made in the past; be aware of the threats to the natural world today; and be prepared to work for conservation and the enhancement of this natural heritage with all your enthusiasm and vigour – the future is yours!

Returning to WWF and its activities: up to 31 August 1976 it has allocated grants world-wide to 1 566 individual projects to the tune of 19,2 million Rand. Out of this total a fair share – though not quite the lion's share – went to Africa. In the countries of southern Africa 32 projects received grants totalling approximately 0,56 million Rand.

Providing money to finance conservation action is only part of its endeavours. The WWF has also achieved substantial conservation results and action by means of official representations to world authorities, governments and decision-makers at large. Although difficult to evaluate and to express in terms of money, there is no question that these results not only match, but probably exceed many times the impact of the project grants. In this respect, it will suffice to refer to one example from southern Africa: the representations repeatedly made by the WWF and the SA Nature Foundation in the last couple of years which may finally result in the addition of new conservation zones in Damaraland and Kaokoland to the existing Etosha National Park and Skeleton Coast Park in South West Africa and thus to the establishment of one continuous area of 72 000 km² – more than one and a half times

the size of Switzerland and which would constitute the largest nature reserve in the world.

The past 15 years have seen a multitude of new initiatives and international programmes which are of great significance to world conservation. The IUCN and WWF have been concerned to a greater or lesser extent with each of them, and have been greatly heartened to see powerful partners increasingly involved in conservation endeavours.

The 1960's brought the International Biological Programme (IBP), operating within the auspices of the International Council of Scientific Unions (ICSU). Its objective was the "integrated study throughout the world of the biological basis of productivity and human welfare". A world-wide network of research projects was established – more than 1 500 projects in about 60 countries – providing a valuable source of basic knowledge required for practical conservation work, both terrestrial and marine.

In 1962 the General Conference of UNESCO adopted a major resolution drawing attention to the importance of the conservation of natural resources, flora and fauna, in connection with economic development. This led to an intergovernmental conference of experts on the Scientific Basis for the Rational Use and Conservation of the Resources of the Biosphere in Paris in 1968, and, as a result, to the launching of the programme on Man and the Biosphere (MAB) in 1970. Within the framework of the Programme, MAB projects were initiated in a great many countries and efforts to establish a world-wide network of Biosphere Reserves are still under way.

The FAO also became involved with conservation and has carried out a great number of projects financed by UNDP which focus on the wise use of land, including the establishment of national parks and the rational use of wildlife resources. It has paid special attention to the training of personnel for wildlife conservation.

The major event in world conservation in the intergovernmental sector came with the Stockholm Conference in 1972 and the establishment later that year, of the United Nations Environment Programme (UNEP), with headquarters in Nairobi. With the arrival of UNEP, conservation found itself lifted to the level of permanent government attention and concern in most countries, and it is no exaggeration to say that 5 June 1972, the opening day of the Stockholm Conference, which has since been established as World Environment Day, constitutes a landmark not only in the history of conservation, but in the history of mankind.

Efforts in the field of world conservation are now co-ordinated through the Ecosystem Conservation Group which links UNEP, FAO, UNESCO and IUCN (the Secretariat lying with the IUCN) planning world conservation activities on the basis of scientific knowledge and establishing priorities as a joint venture.

It is extremely difficult to assess the outcome of these many activities,

both at the international and national level. They have undoubtedly been stimulated by the growing awareness of the stark reality of the global situation. The question remains as to whether they will be effective in stemming the tide of destruction or even in providing the nucleus for re-establishing natural environments when ecodevelopment policies are adopted as national goals by the countries of the world.

In a first attempt at such an assessment we may review two indicators: the conclusion of international treaties on conservation and the establishment of new national parks and equivalent reserves. Conservation is of such importance that it is the subject of a considerable number of international agreements, many of them concluded in very recent times. Apart from the African Convention of 1968 to which I have already referred, I will mention three of particular importance world-wide.

In chronological order the first in the "Convention on Wetlands of International Importance, especially as Waterfowl Habitat", adopted at Ramsar, Iran in 1971 and referred to as the *Ramsar* or *Wetlands Convention*, which came into force in December 1975. Up to the present, 13 countries have become parties to the Convention. Several others have signed indicating their intention to adhere, amongst them only one country from southern Africa, the Republic of South Africa.

The second, the "Convention concerning the Protection of the World Cultural and Natural Heritage" (in short: the *World Heritage Convention*) was adopted at the General Conference of UNESCO in Paris in 1972. This Convention has 25 contracting parties, but none of them are from southern Africa. The Convention equates the conservation of the world's natural heritage with that of its cultural (or "man-made") heritage and will stimulate and underpin the protection of outstanding natural areas.

The third is the "Convention of International Trade in Endangered Species of Wild Fauna and Flora" (the *Washington* or *Endangered Species Convention*) adopted in Washington, DC, USA, in 1973. In all 57 countries signed the Convention and it has 32 contracting parties. The Republic of South Africa is the only country from the region to be bound by the Convention, although Lesotho is amongst the signatories. I hope that the other countries will soon adhere to the Convention as a manifestation of their determination to save their endangered fauna and flora and also a gesture of international solidarity and of cooperation with the other nations of the world.

National parks and reserves are of special importance in nature conservation, protecting habitat and providing sanctuaries for endangered plants and animals. The IUCN and WWF have strongly advocated action to ensure that representative samples of the world's ecosystems, both terrestrial and marine, are included in national parks and reserves and hope that this will be accomplished through enlightened international cooperation.

Action in this field is monitored through the United Nations List of National Parks and Equivalent Reserves prepared by IUCN, which was

first published in 1967 and which since 1973 has been revised annually. The list now distinguishes and groups three different categories of conservation areas: National Nature Reserves, National Parks and Related Reserves, and Provincial Parks, which for the sake of convenience I consider together hereafter. As already mentioned, the first national park – Yellowstone in the United States – was created in 1872, and by the end of the last century there were 21 parks in all, including four in South Africa. By 1920 the number of parks and reserves had increased to 89 – of which six were in South Africa and two in South West Africa; by 1940 to 380; and by the end of 1961 to 928. In the last 15 years, however, this number has increased again by 428 to a total of 1 356 parks and reserves, which in terms of sheer numbers means an increase of almost one third whilst in terms of area the net gain is probably even more important. What is particularly rewarding to note here is that this progression has not only been followed, but rather led, by Africa in the past “African Decade”. The countries of southern Africa together in the last 15 years have established 35 new parks and reserves with a total area of 118 538 km², about four times the size of Lesotho or about the size of Malaŵi. This is a most encouraging record and a promise for the future.

Nevertheless much requires to be done both in extending the range of protected areas to cover adequately the ecosystems of the regions and to develop and properly protect the areas already established. The IUCN and WWF stand ready, within the limits of their resources, to assist governments and conservation organizations in their own endeavours concerned with parks and reserves. Action is needed particularly in setting up marine parks and reserves, a field which has as yet received inadequate attention. The IUCN and WWF have formulated a world programme for marine conservation to support national efforts to this end, and intend to focus on this programme during the next two years.

Conclusion

The review I have just presented of the conservation situation of our one Earth leaves us no room for complacency. We, as conservationists may be proud of the achievements of our movement but we cannot relax our endeavours, for it has rightly been said: “It is later than you think!”. We have much work before us but we may take heart in knowing that, to a good extent due to the pioneering efforts of private conservation organisations and conservationists in many countries, more and more governments and nations of the world are already joining with us in our common goal of the conservation and enhancement of *all life on earth*.