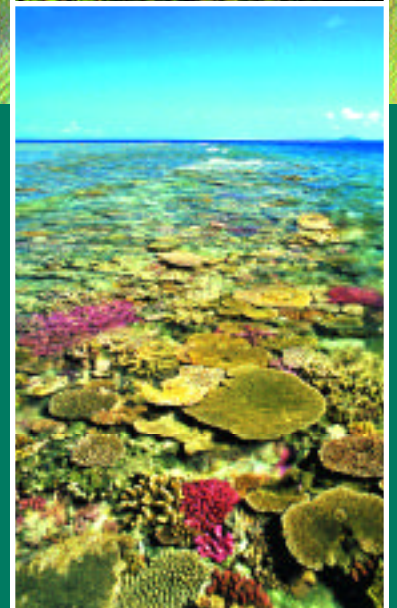




WWF's Global Conservation Programme

2001/2002



WWF's Global Conservation Programme 2001/2002

Compiled, edited and designed by:

Tim Davis
DJEnvironmental
Berrynarbor
Devon EX34 9TB
UK

Picture research:

Tim Davis and the WWF-Canon Photolibrary

Printed by:

Toptown Printers Ltd, Barnstaple, Devon, UK

Cover photos:

Main photo: Wing feathers of a Cuban parrot,
Los Indios Ecological Reserve, Cuba
(WWF-Canon/Michel Roggo)

Top: Atlantic rainforest in Itatiaia National Park,
Brazil (WWF-Canon/Michel Gunther)

Bottom: Coral reef
(WWF/UNEP/TOPHAM/Ezequiel Bece)

Back: A freshwater pool at the heart of the
Chihuahua Desert, Mexico (WWF-Canon/Edward
Parker)

Inset: Bayel tribes-people pole mokoros along the
channels in the Okavango Delta, Botswana
(WWF-Canon/Martin Harvey)

Published in October 2001 by WWF–World Wide Fund For Nature (formerly World Wildlife Fund), Gland, Switzerland. Any reproduction in full or in part of this publication must mention the title and credit the above-mentioned publisher as the copyright holder.

No photographs from this publication may be reproduced on the World Wide Web without prior authorization from WWF.

The material and the geographical designations in this report do not imply the expression of any opinion whatsoever on the part of WWF concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries.

© text 2001 WWF



contents

Introduction ii

WWF’s Global Conservation Priorities 1

Forests 7

Freshwater 19

Oceans and Coasts. 29

Species. 39

Climate Change 49

Toxic Chemicals 55

Financial overview. 60

WWF around the world 61



*The view from here —
birdwatchers atop a dune in the
Chihuahua Desert, Mexico, a
WWF Global 200 Ecoregion.*
WWF-Canon/Edward Parker



introduction

Shortly before publication of this report, WWF celebrated the 40th Anniversary of its founding on 11 September 1961. Four decades on, WWF has become one of most respected names in environmental conservation, with an impressive record of success.

But what does ‘success’ really mean in conservation terms?

In September 2000, we produced the third *Living Planet Report*, a review of the state of the world and the human impact upon it. The additional data and refined analysis presented in the report confirms the fact that our planet has lost approximately one-third of its natural wealth in the last 30 years — during three-quarters of WWF’s life.

Conservation is a high-risk business. Not every biome or habitat, or species of animal or plant we deal with can be saved, and often the degree of urgency has to be assessed to decide where to place scarce resources and effort in the face of sometimes insurmountable obstacles. And just when everything seems to be going in the right direction, events beyond one’s control can suddenly change and put everything at risk again.

This sounds fairly disheartening, and sometimes it is. However, one of WWF’s founders, the late Sir Peter Scott once wrote: *“We shan’t save all we would like to, but we shall save a great deal more than if we had never tried”*. This dogged spirit lives on within the 3,700 staff that WWF now employs around the world — people who are used to a life where two steps forward can often be followed by one or even two frustrating steps backwards.

I would like to think that the present-day WWF matches the vision of those great names who, along with Peter Scott, laid our foundations — Sir

Julian Huxley, Max Nicholson, Guy Mountfort and others. No doubt WWF has not achieved all the successes they may have hoped for, but by following Peter Scott’s maxim for perseverance, the organization has nonetheless contributed significantly to some impressive achievements over the years.

Huxley and his colleagues launched what they called ‘a New Ark’ based on four pillars:

- to preserve before it is too late as much as possible of what survives of this natural heritage
- to feed the hungry in spirit and the undernourished in mind and to hand down our natural world intact
- to learn more about the environment, and
- to gauge and promote any potential economic gain from conservation.

These were indeed far-reaching ideals which still influence the organization today. Some of the earliest work focused on species conservation, using powerful icons such as African rhinos to mobilize public support to fight the environmental declines that Huxley and his colleagues were witnessing. WWF has not saved as many species as we would have wished, and the past 40 years has sadly seen many extinctions. However, there are a few notable animals that now have a much brighter future as a result of WWF’s support and work with partner organizations:

- **African rhinos.** There are now more rhinos in the wild in Africa than at any time since the early 1980s — just over 13,000 in 1999, up from 8,300 in 1992.
- **Mountain gorillas.** Despite war in Rwanda and the pressures of shifting refugee populations, recent reports show numbers of mountain gorillas have increased by more than 10 per cent, growing from 320 to 355 individuals in the wild.

- **Siberian tigers.** In the 1930s, Siberian tigers were almost extinct; now there are just under 500. Still an endangered species, the major threats to them are loss of habitat and poaching for use in traditional Asian medicines.
- **Iberian lynx.** Now found only in fragmented habitat in Spain and Portugal, this is the world's most endangered cat species. In 1995, WWF and partner organizations in 17 European countries launched a Large Carnivore Initiative to secure the survival of the brown bear, Eurasian and Iberian lynx, wolf, and wolverine. The initiative's action plans have been approved by the Council of Europe and the Bern Convention.
- **Golden lion tamarin.** This is one of the best-known forest conservation efforts in Brazil. A strikingly beautiful, squirrel-sized primate that exists only in the lowland Atlantic forest of the state of Rio de Janeiro, the tamarin has significantly increased in number since 1984 due to protection, expansion of habitat, a reintroduction programme, and the support of landowners. Early 2001 marked the birth of the 1,000th golden lion tamarin. However, the species remains one of the most endangered animals on earth.

In order to survive, however, species require their habitats to remain intact. This is why WWF's global conservation priorities focus attention on the planet's three most important biomes: forests, freshwater ecosystems, and oceans and coasts. It is in these areas that WWF has made significant contributions over the years.

In 1975, WWF launched its first Tropical Rainforest Campaign which raised funds and helped establish several dozen new national parks or reserves in Africa, Asia, and South America. Since then WWF has helped many forest conservation areas around the world, supporting their establishment, maintenance and protection. Only 8 per cent of the world's forests are currently under protection and WWF's goal is to reach 40 per cent by 2050.

But as long as the world needs wood, simple protection is

not enough. Over the past decade WWF has established and now supports the work of the Forest Stewardship Council (FSC) to oversee the independent certification of wood and wood products that come from well-managed forests. To date more than 200 forests covering at least 20 million ha in 35 countries have been independently certified under the FSC scheme and more than 20,000 products worldwide carry the FSC label. In addition, the Global Forest and Trade Network, coordinated by WWF, brings together some 700 companies, including B&Q, IKEA and Home Depot, committed to producing and purchasing forest products from well-managed forests and to supporting independent certification. These members range from forest owners and timber processors to architects and home improvement chain stores.

One of the earliest freshwater conservation initiatives that WWF engaged in was a grant of US\$574,000 to purchase 65km² of land near the Guadalquivir River in Spain which later led, under the guidance of another WWF founder and now Vice-President Emeritus, Dr Luc Hoffmann, to the establishment of one of the world's best known wetland protected areas — Doñana.

As with forests, mobilizing the right level of political and public support for freshwater conservation is also important. WWF was a major supporter of the Ramsar Convention — the Convention on Wetlands of International Importance — when it was created in 1971. Since then, WWF has been working closely with governments under the framework of the convention to conserve wetlands worldwide. Today, 127 nations are Contracting Parties to the Convention, and more

than 1,000 wetlands totalling over 81 million ha around the world have been designated for inclusion in the Ramsar List of Wetlands of International Importance. In May 1999, WWF started a special push to protect at least 25 million ha more.

Undoubtedly one of the longest running battles for conservation of the oceans and their resources has centred upon the world's great whales. WWF's vigorous lobbying culminated in virtually the whole Southern Ocean being declared a whale

Siberian tiger.

WWF-Canon/Jean-Louis Klein



sanctuary in 1994. The sanctuary's boundary abuts the Indian Ocean Sanctuary's southern extremity, together covering around 100 million square kilometres and protecting about one-third of the world's oceans from whaling. Sperm whales and all Southern Hemisphere baleen whales, with the exception of the tropical Bryde's whale, migrate to the Southern Ocean around Antarctica in summer to feed. The declaration of the ocean as a whale sanctuary was crucial for allowing the recovery of these populations, originally the most abundant in the world, after being decimated by whalers.

WWF is also looking (as the authors of the 'New Ark' recommended) at the economic aspects of marine conservation. In February 1996, WWF and Unilever formed a partnership to create economic incentives for sustainable fishing by establishing the now independent Marine Stewardship Council (MSC). Capitalizing on the vast surge of consumer concern about the state of the planet, the MSC developed the first-ever global certification standards and labelling scheme for sustainable seafood products. The MSC label provides real market incentive for well-managed fisheries all over the world, and at the same time gives consumers the chance to use their purchasing power to favour a healthy, well-balanced marine environment. To date, four fisheries have earned the MSC label.

When WWF refined its global conservation priorities to meet the challenges of the new millennium, two of the most all-pervasive and insidiously invisible threats to the future of the Earth were included: the spread of toxic chemicals, and the long-term impacts of climate change. In fact, WWF has been working on both issues for a few years, with some success.

In 1997, WWF acted as a key force in the creation and subsequent improvement of the Kyoto Protocol, an international agreement to reduce greenhouse gas emissions to curb global warming. Recently, WWF has worked hard to attempt to ensure both the environmental integrity of the protocol and its ratification. Despite the political threats to the treaty presented by the withdrawal of the US government, it is now in place and ready for final ratification by those governments who have signed the accord.

Similarly, WWF has been involved, through lobbying and consultation, in the completion of a

global treaty that calls for the elimination of eight synthetic chemicals that are toxic to both wildlife and humans. Severe restrictions on the production and use, with the ultimate aim of elimination, of a further four are also included in the treaty. The Stockholm Convention is now in the process of ratification.

Here then are a few successes to which WWF can claim to have been a significant contributor during its 40-year lifetime. They have all only been made possible through the cooperation and collaboration with a wide range of partners.

Will they all hold for a further 40 years? One thing is sure, we cannot rest on our laurels. Even with many successes under our belt we must work hard to achieve our goals. Continued effort, working closely with partners, leveraging our outreach and influencing corporate giants will build on past successes. We cannot afford to relax our guard. We thought the Kyoto Protocol was safe until a change in US politics undermined it; we thought Donaña was secure until a mine reservoir spilled toxic waste there in 1998; the ongoing 'scientific' whaling by Japan in the Southern Ocean Whale Sanctuary is a continuous threat; we thought that Galapagos was protected until demand for sea-cucumbers in Asian food markets led to overfishing of its waters, while in January 2001 a tanker ran aground there spilling a large amount of diesel fuel.

It is for these reasons that we view 'success' with caution when assessing the impact of our work.

In this year's report you will find other examples of recent achievements by WWF around the world. None would have been possible without the help and support of the many thousands of donors, supporters, collaborators, and partners who have worked with us and helped us in a myriad of different ways. To each and every one of you, WWF is immensely grateful. With your help we will persevere in our efforts to leave our children a Living Planet.



Chris Hails
Programme Director
WWF International

WWF's global conservation priorities

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable, and
- promoting the reduction of pollution and wasteful consumption.

WWF works to conserve nature and ecological processes through a combination of action on the ground, national and international advocacy work to establish appropriate policies, and international campaigns to highlight and demonstrate solutions to crucial environmental problems, through linking field and policy work.

WWF is a network organization with almost 5 million regular supporters, over 50 country or regional offices and 4 Associate Organizations. By careful application of its resources and expertise, and through strategic partnerships with governments, different sectors of business and industry, civil society groups and indigenous peoples across the world, WWF conducts those activities which are necessary to fulfil its aspirations and attain its mission.

Through conservation successes in a few well-chosen areas, and effective communication of the results, WWF aims to create the momentum necessary to challenge the root causes of the degradation of our planet's environment.

Global issues

To maximize its impact, WWF has chosen a set of global priorities for its work. These priorities cover six globally important issues, and some of the most important places in the world for biodiversity



Black rhino.

WWF-Canon/Martin Harvey

conservation (ecoregions), where WWF will apply its effort and support.

Firstly, there is the conservation of the three biomes of **Forests, Freshwater Ecosystems, and Oceans and Coasts**. These contain the bulk of the world's biodiversity and provide the environmental goods and services upon which all life ultimately depends.

Secondly, WWF has identified a small number of flagship **Species** whose conservation is of special concern and which act as powerful icons for the conservation of other species and habitats.

And thirdly, WWF has targeted two of the most globally pervasive and insidious of the threats to biodiversity: the spread of **Toxic Chemicals** and the phenomenon of **Climate Change**. Both of these have grave and often invisible impacts upon the security of all life on Earth.

For each of the six global issues WWF has established programmes with clear conservation targets that identify those actions required for WWF to achieve its ambitious mission.

The Global 200 Ecoregions

Biodiversity is not spread evenly across the Earth but follows complex patterns determined by climate, geology and the evolutionary history of the planet. These patterns are called 'ecoregions'. WWF has identified the most valuable and sometimes vulnerable ecoregions in the world which best represent the breadth of biodiversity and ecological processes. The list of priority

ecoregions identified by WWF scientists is known as 'The Global 200 Ecoregions' (see map opposite).

The Global 200 recognize the fact that, whilst tropical forests and coral reefs harbour the most biodiversity and are the traditional targets of conservation organizations, unique manifestations of nature are found in temperate and boreal regions, in deserts and mountain chains, which occur nowhere else on Earth and which risk being lost for ever if they are not conserved.

WWF has selected a subset of the Global 200 where it is best placed to carry out conservation programmes at an ecoregional scale. WWF encourages others to tackle the challenges of conserving the remaining priority ecoregions.

Relationship between the global issues and ecoregions

There is a clear synergy both between and amongst these two sets of priorities. The six global issues are a set of globally important processes which are WWF's priorities for conservation action; the Global 200 identify those large landscapes WWF has prioritized for broad-based conservation action.

Work on the global issues both inside and outside ecoregions, for example in the area of sustainable forest management or improving the way in which fresh water is used in agriculture, will support the conservation of ecoregions. Conservation of the Global 200 will address the long-term security of their biodiversity by

integrating the six issues with other conservation approaches, addressing the full range of socio-economic factors which are the root cause of biodiversity loss, leading to concrete conservation solutions.

Global conservation targets

Forests

WWF's vision for forests is for the world to have more extensive, more diverse and higher quality forest landscapes which will meet human needs and aspirations fairly, while conserving biological diversity and fulfilling the ecosystem functions necessary for all life on Earth.

To achieve this, WWF's Forests for Life Programme aims to halt and reverse the loss and degradation of forests and all kinds of woodlands worldwide. This will require the establishment of forest protected areas; sustainable management of unprotected forests; restoration of degraded forests; minimizing forest loss due to climate change and pollution; and responsible trade in forest products.

Three global targets have been set:

- By 2010, the establishment and maintenance of viable, representative networks of protected areas in the world's threatened and most biologically significant forest regions
- By 2005, 100 million ha of certified forests, distributed in a balanced manner among regions, forest types and land tenure regimes

- By 2005, at least 20 forest landscape restoration initiatives underway in the world's threatened, deforested or degraded forest regions to enhance ecological integrity and human well-being.

Freshwater Ecosystems

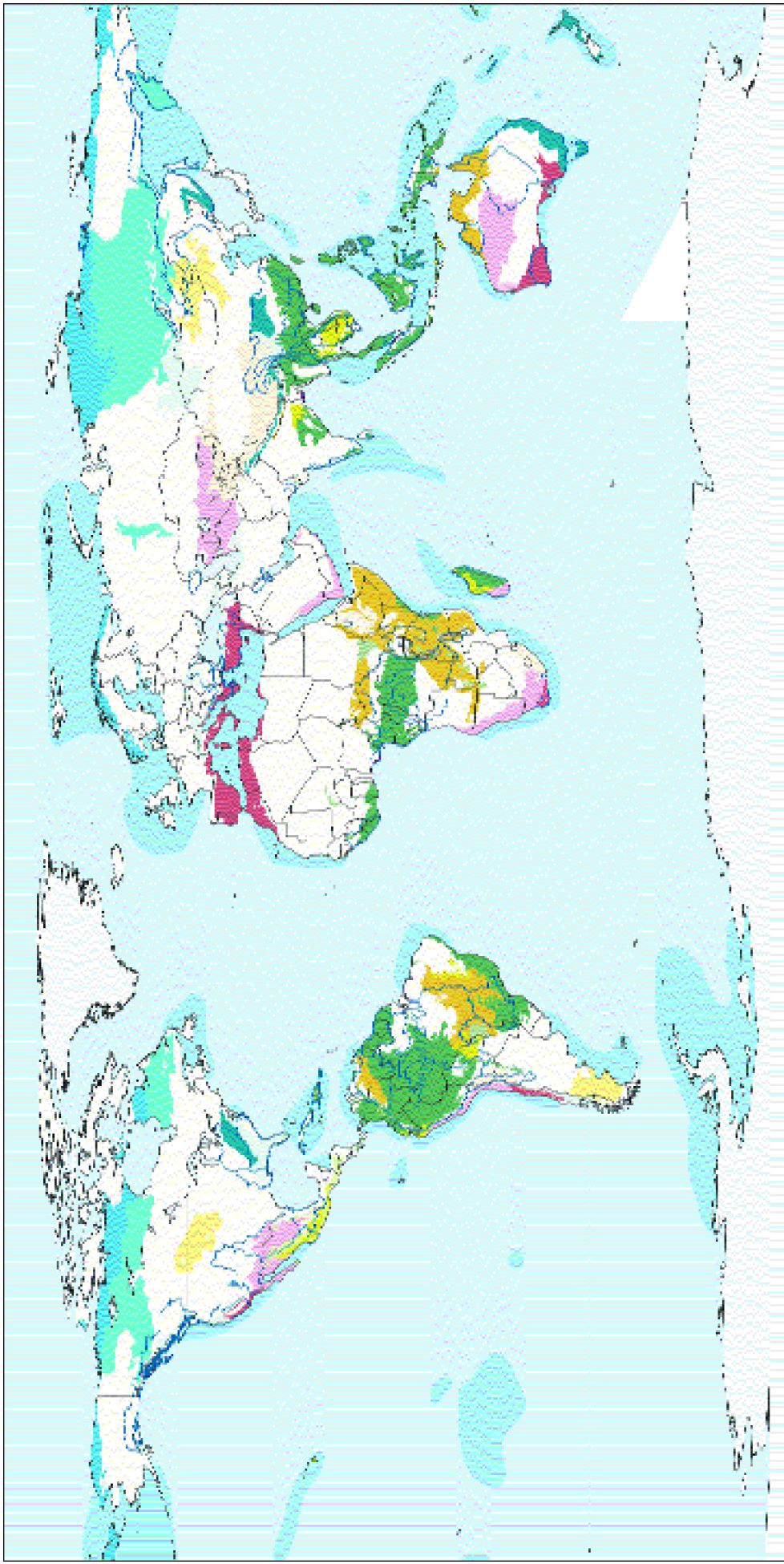
All life on Earth is dependent upon water, yet as a resource water has been treated thus far as having unlimited supply. Many places, however, are now water stressed, where demand outstrips annual supply. Healthy freshwater wetlands the world over will enhance the quality of life, but this will only be achieved when nature is recognized and valued as the source of water.

The goal of WWF's Living Waters Programme is to conserve and restore freshwater ecosystems and their processes for the benefit of people and wildlife. To achieve this requires a holistic approach to freshwater management through integrating ecological concerns with basic human needs and cultures; promotion of the conservation of freshwater ecosystems and their processes by emphasizing management of entire water catchments; and maximizing beneficial impacts and minimizing detrimental impacts on freshwater resources and ecosystems.

Three global targets have been set:

- By 2010, 250 million ha of high-priority freshwater ecosystems worldwide are protected and/or sustainably managed

The Global 200 Ecoregions



Terrestrial Major Habitat Types

- Tropical & Subtropical Moist Broadleaf Forests
- Tropical & Subtropical Dry Broadleaf Forests
- Tropical & Subtropical Coniferous Forests
- Temperate Broadleaf & Mixed Forests
- Temperate Coniferous Forests
- Boreal Forests/Taiga
- Tropical & Subtropical Grasslands, Savannas & Shrublands

- Temperate Grasslands, Savannas & Shrublands
- Flooded Grasslands & Savannas
- Montane Grasslands & Shrublands
- Tundra
- Mediterranean Forests, Woodlands & Scrub
- Deserts & Xeric Shrublands
- Mangroves

- Marine Ecoregions
 - Freshwater Ecoregions
 - No Data
 - International Boundaries
 - - - Disputed Boundaries. Lines of control or alignment unconfirmed
- (Boundaries based on UN sources)*

- By 2010, ecological processes are maintained or restored in at least 50 large catchment areas of high biodiversity importance
- By 2010, private sector practices and related government policies concerning key water-using sectors are established and/or changed in order to sustain the integrity of the freshwater ecosystems on which they depend and/or impact.

Oceans and Coasts

To keep and restore the enormous riches of the world's oceans, governments, communities, environmentalists, industries and other interest groups around the world must work closely together. It is essential that we use our oceans and coasts wisely for the benefit of current and future generations.

Through its Endangered Seas Programme, WWF approaches the conservation of oceans and coasts by promoting globally the establishment of a system of marine protected areas, and by the introduction of measures to ensure that fishing is carried out in a sustainable manner.

Two global targets have been set:

- By 2020, the establishment and implementation of a network of effectively managed, ecologically representative marine protected areas covering at least 10 per cent of the world's seas
- Maintain the status of all fish stocks that are currently



Mountain gorilla.
WWF-Canon/Martin Harvey

exploited sustainably and, by 2020, halve the number of fish stocks that are overexploited or depleted, as currently categorized by FAO.

Species

WWF's vision is a world in which the intrinsic, aesthetic, economic and ecological values of species are recognized and respected worldwide and that, as a result, environmental degradation and unsustainable use no longer threaten the survival of wild plants and animals and their crucial habitats.

WWF's Species Conservation Programme seeks to conserve viable populations of selected species that are of particular conservation concern. Whilst important in their own right, species are also critical for the maintenance of fundamental

ecological processes, and as indicators of the health of natural places.

The species and species groups which form the focus of this programme are: African and Asian elephants, African and Asian rhinoceroses, the giant panda, great apes, great whales, marine turtles, and the tiger.

Two global targets have been set:

- By 2010, populations of key species of global concern are stabilized or increased and their critical habitats safeguarded
- By 2010, at least ten species of global concern are no longer endangered by overexploitation.

WWF articulates its species conservation work through Species Action Plans and influencing the decisions made by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the International Whaling Commission (IWC). At the heart of this work lies the concept of species viability and the corresponding need to conserve wildlife in managed landscapes large enough and varied enough to ensure their long-term well-being within contexts increasingly dominated by social and economic concerns.

An issue of wide concern in species conservation is the international commercial trade in endangered species. Jointly with IUCN-The World Conservation Union, WWF runs the TRAFFIC (Trade Records Analysis of Flora and Fauna in Commerce) programme whose

mission is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.

Toxic Chemicals

Within one generation, by 2020, WWF would like to see an end to threats to the Earth's biological diversity from toxic industrial chemicals and pesticides, especially endocrine disrupting, bioaccumulative, or persistent chemicals.

In pursuit of this vision, WWF's Toxic Chemicals Programme investigates toxic chemicals and their relationship to biodiversity and human health; works to phase out and ban chemicals that threaten life; and seeks to identify and promote safe, effective, and affordable alternatives.

Two global targets have been set:

- By 2007, eliminate or reduce at least 30 of the most hazardous industrial chemicals and pesticides, with special emphasis on persistent organic pollutants (POPs) and endocrine disrupting chemicals (EDCs)
- By 2007, scientific, educational and regulatory initiatives will be firmly in place, enabling decision-makers (governments, industry, consumers) to make informed choices about toxic chemicals and their alternatives.

These targets will be integrated into WWF's work on the other global issues, as well as the Global 200 Ecoregions. In all cases the 'precautionary

principle' will be used as the basic approach.

Climate Change

WWF's hopes that, by 2030, the supply and use of energy and raw materials will have been transformed, and that policy-makers, the private sector, and investors — driven by pressure from civil society — will have taken action to reduce carbon dioxide emissions and curb human-induced global warming. Only in this way can serious damage to the world's most important areas from climate change be avoided.

WWF's Climate Change Programme aims to ensure that industrialized nations achieve a permanent downward trend in their domestic emissions of carbon dioxide as a first step towards substantial reductions in emissions.

Three global targets have been set:

- By 2010, a 10 per cent

reduction below 1990 emissions in industrialized country carbon dioxide emissions

- By 2010, initiatives should be underway in thirty developing countries to implement solutions leading to a significant reduction in carbon intensity, in particular from the combustion of fossil fuels
- By 2010, fifty countries are implementing adaptation strategies in key ecoregions/biomes and sectors of their economies on the basis of national plans for the reduction of vulnerability to climate change.

Ecoregion action programmes

In addition to the six programmes outlined above, WWF has identified and chosen to work in a subset of 77 individual or combined ecoregions. To guide this work WWF will follow the principles established for ecoregion conservation (see box on page 6). Our ultimate goal is to conserve the full array of biodiversity of each of these special areas. Using current information, and in conjunction with partners, each ecoregional action programme will establish a vision for the long-term conservation of the ecoregion's biodiversity, and a set of targets which need to be achieved to reach that vision. These targets will address the full range of socio-economic change necessary within the ecoregion and will also contribute to the achievement of the targets of the six globally important issues.



Delivering conservation — how WWF works

The principles which outline the rationale of ecoregion conservation will be the principles which guide and direct WWF's ecoregional action plans. These plans will employ the tried and tested methods that WWF has used over the years — e.g. protected area establishment, environmental education, capacity building, advocacy for policy change — but on a geographically larger scale and engaging a broader range of issues and partners than ever before. In addition, as we analyse the pressures bearing upon ecoregions, certain 'common' problems will emerge, such as adverse trade rules, perverse subsidies which drive agricultural expansion or resource depletion, and other socio-economic issues. WWF, together with its conservation partners, will address these problems on a global basis as they occur.

In addition to the work undertaken in these geographically specific activities, short-term campaigns will be carried out to help the programme focusing on the global issues to reach their targets. These campaigns will be an integrated set of innovative and high-profile international activities carried out to achieve a specific conservation target within a defined timeframe.

Principles of Ecoregion Conservation

1. WWF's primary purpose is the conservation of biodiversity, which is the foundation for a future where humans live in harmony with nature.
2. Ecoregions are the appropriate geographical unit for setting conservation goals; they represent an ambitious and visionary scale necessary for biodiversity conservation.
3. Sharing ideas, promoting learning processes at different scales, and practising adaptive management are critical to rapid success.
4. WWF must be flexible in its outlook and be willing to adapt its own structures and operations to the needs of conservation in the ecoregion.
5. Ecoregion conservation programmes should develop a vision for an ecoregion, which is bold, engaging and ambitious to set directions and arouse support. This vision should contain an inspirational message to motivate and engage stakeholders and partners.

Principles related to implementation

6. Ecoregion conservation plans must be flexible and allow for sound judgement when a change of course or tactic is necessary.
7. Operationally, implementation may take place at levels below the ecoregional scale, or outside the ecoregion, depending on the issue under attention. Threats analysis is an essential filter for figuring out the scale at which we should act.
8. Personal initiative and effective, empowered leadership are vital. Appropriate emphasis must be placed on training and capacity building.
9. Knowing who and when to engage in strategic partnerships throughout the entire ecoregion process is crucial to realize the vision. This may include partnerships with stakeholders who represent a critical constituency but who may not normally be seen as conservation allies.
10. An inspiring vision must be combined with up-to-date reporting and transparency of goals, actions and achievements in order to build the commitment and ownership of partners to stay actively engaged.
11. Clear objectives and precise conservation targets are needed to guide, focus and monitor progress.
12. Long-term flexible financing must be focused at an ecoregional level (rather than site level) to give the programme a confident start and to maintain it. Novel and ambitious financial mechanisms that go beyond traditional WWF support must be actively pursued.
13. All conservation activities must be conceived and implemented in relation to the social and political realities in which they take place.
14. Appropriate institutional development is necessary to strengthen advocacy at several scales. This includes the harnessing of the full power of the WWF Network and key partners to make the most of political and high publicity opportunities.

forests

Despite the significant achievements made by WWF in forest conservation over the past 40 years, the world's forest landscapes continue to deteriorate. More than ever we need to reach out to new and existing partners to form a powerful, global alliance to reverse the trends that are bringing the world's forests to the brink of ruin.

In addition to our current partners, such as the World Bank, IUCN–The World Conservation Union and the Forest Stewardship Council (FSC), we need to work with other NGOs, labour unions, and consumer groups if we are to succeed in tackling the threats to forests posed by ineffective or inadequate government policies and the disastrous practices of some irresponsible members of the timber industry.

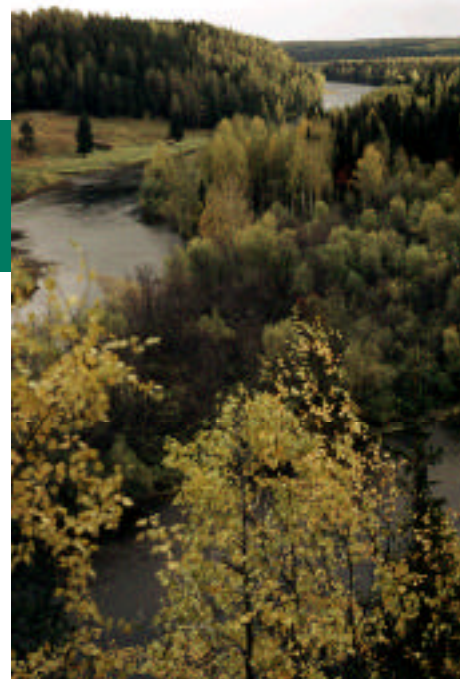
WWF's new targets for protecting, managing, certifying and restoring forests will help to bring together the people and resources needed for effective long-term action.

In particular, our work on forest landscape restoration brings the opportunity to work with people and aid agencies in the fight against poverty.

Chris Elliott
Director, WWF Forests for Life Programme

WWF's vision for forests

WWF's vision for the world's forests (developed jointly with IUCN–The World Conservation Union) is for a world with more extensive, more diverse and higher quality forest landscapes that will meet human needs and aspirations fairly, while conserving biological diversity and fulfilling the ecosystem functions necessary for all life on Earth.



Mixed boreal forest along the Pechora River, Komi State, Russia.

WWF-Canon/Hartmut Jungius

Global highlights

- Following Romania's decision to move towards certification of its forest landscapes, Bulgaria, Croatia, Estonia, Hungary, Latvia, Russia and Slovakia are also set to pursue FSC certification of their managed forests.
- Turkey committed to increase its protected areas network by 50 per cent, announcing the Kure Mountains National Park and, by 2005, protection for eight other priority forest areas totalling 250,000 hectares.
- The government of Cameroon committed more than US\$10 million to an Emergency Action Plan focusing on the control of illegal exploitation of forest and wildlife resources, involvement of local communities in forest management, and cross-border initiatives.
- The government of Bhutan designated 12 biological corridors, totalling 3,828km², linking several of the country's forest protected areas.
- The government of Georgia pledged to protect 15 per cent of its forests by 2010, representing a 50 per cent increase in the area of forest currently protected.
- The area of FSC-certified forest in the Brazilian Amazon rose to 870,511 hectares.

Targets

To achieve its vision for forests, WWF's Forests for Life Programme has set three global targets:

- By 2010, the establishment and maintenance of viable, representative networks of protected areas in the world's threatened and most biologically significant forest regions
- By 2005, 100 million ha of certified forests, distributed in a balanced manner among regions, forest types and land tenure regimes
- By 2005, at least 20 forest landscape restoration initiatives underway in the world's threatened, deforested or degraded forest regions to enhance ecological integrity and human well-being.

These targets are a challenge to the world. WWF cannot achieve them alone, but needs to inspire and mobilize multiple partners, using a diversity of tools. While WWF's aim will remain constant, the approach will vary from region to region to respond to local realities, with a particular effort to protect, manage and restore forests in focal Global 200 forest ecoregions.

The targets can also be interpreted in the context of reducing the ecological footprint of developed countries on the rest of the world. Certification of tropical timber imports to improve forest management (target 2) and a reduction of conversion of forests to agricultural uses for export

markets (target 3) are examples of this.

Particular attention will be paid to issues which cut across the targets, whether they are threats (forest fires, illegal logging, climate change), policy issues (subsidies, trade barriers, investment flows) or opportunities (community forest management).

Forest conservation highlights

Overview

WWF has developed the most widely utilized management assessment tool in the world. The 'Rapid Assessment and Prioritization Methodology' is being used in Russia to assess over 200 protected areas, while in South Africa, the well-respected KwaZulu Natal Nature Conservation Service is using the system to assess 110 protected areas. Plans are well advanced to assess the natural reserve, regional and national parks in France and protected areas in China.

An analysis by WWF of forest protection in Global 200 ecoregions showed that the majority of these important areas — rich in habitats and rare species, and natural processes that support life — remain vulnerable to deforestation and degradation. The study highlighted the world's ten most vulnerable forest ecoregions as: Southern Pacific Islands (currently with only 0.2% protection); Naga-Manapuri-Chin Hills (0.8%); Solomons-Vanuatu-Bismarck moist forests (1%); Cameroon Highlands (1%); Gulf of Guinea mangroves (1.1%), Madagascar mangroves

(1.3%); Palawan moist forests (1.4%); Philippines moist forests (1.8%); Southern Mexican dry forests (2.1%); and East African mangroves (2.2%). The results were derived by calculating the proportion of the current area of forest protected within each Global 200 ecoregion.

Gifts to the Earth, developed by WWF as a means of receiving and recognizing conservation commitments by governments, business and industry, organizations or individuals, continues to prove an effective means of achieving protection of the Earth's forests. At a high-level event hosted by HRH The Duke of Edinburgh at St James's Palace in London in April 2001, two significant new Gifts were announced. Mrs Nino Chkhobadze, Minister of Environment for Georgia, received a Gift to the Earth certificate on behalf of President Eduard Shevernadze for committing his government to protect 15 per cent of existing forest cover in Georgia by 2010. This will represent a 50 per cent increase in the area of forest currently protected in the country. At the same event, the Turkish government announced the declaration of the Kure Mountains as a National Park and also made a commitment to protect eight other priority forest areas (totalling 250,000ha) by 2005. This Gift increased the protected areas network in Turkey by 50 per cent.

WWF and the Certified Forest Products Council (CFPC) gave enthusiastic backing to the Xylem Rainforest Fund (XRF) after it stated its commitment to invest in certified forest management companies recognized by the Forest

Stewardship Council (FSC). The Xylem Rainforest Fund is a new investment vehicle targeting forest management companies throughout the tropics and subtropics. To ensure that its investments meet the highest international standards for responsible business practice, XRF has committed to the strict environmental, social and economic criteria laid down by the FSC. The target fund size is US\$500 million. With this commitment, XRF joins the Global Forest and Trade Network coordinated by WWF. The network now boasts more than 700 member companies or organizations worldwide. These groups are dedicated to sourcing, producing and investing in independently certified products from well-managed forests.

If the ten global companies that dominate the timber industry were to adopt FSC management processes, the growing demand of the world's consumers for wood products could continue to be met from as little as 600 million ha of forest — an area about twice the size of India, or one-fifth of the world's forests. This is the assessment of a WWF report launched in March 2001 entitled *The Forest Industry in the 21st Century*. Such support for the FSC approach would provide the critical mass necessary to change forestry practices worldwide, and bring to a halt the destruction of old-growth forests and the degradation of fragile forest ecosystems. Among the ten companies listed by WWF are International Paper, Georgia Pacific, Weyerhaeuser, Stora-Enso, and Smurfit Stone Container, which

Conserving ecoregions

Tropical forests in the Greater Annamites

The chain of mountains that extends along the border between Laos and Vietnam marks the eastern boundary of the final stages of the Mekong River and characterizes the Greater Annamites ecoregion. The forests and rivers support a rich diversity of animals and plants, such as tiger, Asian elephant, gibbons, the highly endangered Javan rhinoceros, and several species discovered only in recent years, like douc langur, one of the world's most beautiful and endangered primates.

For people, the forests are an important natural resource for two countries recovering from years of social turmoil and economic collapse. Areas are converted for agriculture, forests are felled for timber, and dams are constructed to provide energy. Such activities are putting increasing pressure on the region's natural wealth. However, the governments of both Laos and Vietnam are committed to sustainable development and are making efforts to ensure economic growth does not take place at the expense of the natural resource base.

Among the greatest threats to the richness of the Greater Annamites are the exceptionally high levels of hunting, wildlife trade and plant collection. Traditional use of the forests for food, medicine and shelter have become increasingly commercialized, with many plants and animals taken to supply large markets in China and elsewhere. Unless control measures are taken, Asiatic black and sun bears, elephants, pangolins, tigers, turtles and other species risk becoming extinct in the wild in the Annamites within the current generation.

To address these threats, the two countries have established protected areas throughout the Greater Annamites. The management of these areas is now under extensive review to ensure that they are providing effective shelter. To further halt the loss of forests, the Vietnamese government has also placed a ban on the export of timber and launched an ambitious programme to establish an additional five million ha of forest landscapes. WWF is assisting with the development of a conservation programme for the entire ecoregion, in partnership with both governments and other stakeholders.

An old woman collecting firewood in the Central Annamites. WWF/Tran Viet Duc



To date, major assessments have been made of the biological importance of the ecoregion and the socio-economic threats and opportunities for conservation success. These planning exercises have been matched by field projects aimed at improving management of natural resources by local communities and promoting practices that will not exhaust the forest resource.

between them process around 20 per cent of the world's industrial wood. The five largest wood buyers are Home Depot, Lowes, IKEA, Kimberly-Clark, and Proctor & Gamble. Home Depot, Lowes, and IKEA already actively support FSC and Stora-Enso has FSC certification for its forests in Sweden. WWF is calling on the remaining processors and buyers to seek full FSC certification and to take the lead in saving the world's forests. (A copy of the full report is available on www.panda.org/forestandtrade)

In addition to its targets for forest *protection* and *management*, WWF has adopted a third target that concentrates on the *restoration* of lost or degraded forests. Forest landscape restoration brings a new approach to the conservation of the world's forests: restoring forest functionality for the benefit of a vast range of stakeholders, including future generations. Restoration is not only about tree-planting but about restoring the goods and services that forests provide. It will include natural regeneration, managing and enriching 'non-productive' secondary forests, improving the quality of degraded forests, in some situations by encouraging the use of beneficial agroforestry systems, and planting trees when appropriate. The new approach will be particularly beneficial to WWF's conservation efforts in ecoregions.

A network of forest landscape practitioners across a range of partner organizations has been set up. These include the World Bank, which, in its new Forest Strategy, explicitly refers to the joint WWF/IUCN



The first ever FSC-certified tree to be felled in Austria, in Freibach Forest, Corinthie, in October 2000.
WWF-Austria

project 'Forests Reborn': *"Under its new strategy, the Bank will support ... and make significant contributions to forest landscape restoration. The Bank can take advantage of the vast experience accumulated... and further develop the concept through the emerging Forests Reborn initiative developed jointly with bilateral donors, WWF, IUCN, and other organizations"*. WWF is also seeking close collaboration with institutions such as the Centre for International Forestry Research (CIFOR) and the UK's Overseas Development Institute (ODI).

Forest landscape restoration projects are already underway in two freshwater ecosystems: the Kinabatangan Floodplain in Sabah, Malaysia, and the Lower Danube Islands in Bulgaria. In both cases the entire watershed is the 'landscape' being used for planning purposes. WWF is taking the landscape approach in its forest restoration work in China, East Africa, and the Mediterranean.

Africa and Madagascar

Thirty-four percent of WWF's conservation investment in Africa is spent on forests, focusing on protected area management, policy and advocacy work, sustainable forest management, and local community initiatives. The past year has been one of concentrated and sustained conservation effort in forest work, resulting in significant conservation achievements in all sub-regions.

Forest conservation activities in Central Africa continued to be scaled up through implementation of the Western Congo Basin Moist Forest ecoregion action programme, the most important activity for which was the development of a vision for the future. The vision covered the entire Congo basin forests, taking in not only the Western Congo Basin ecoregion, but also three other ecoregions: the NE Congo Basin Moist Forests, Central Congo Basin Moist Forests, and the Congolian Coastal Forest. The biological vision resulted from a scientific analysis of patterns in plant and animal life, ecological requirements, and trends in biodiversity loss in the Congo Basin carried out by biologists, conservation specialists, government representatives, local NGOs and other stakeholders. It represents the first step towards the development of a conservation action plan for the entire complex of ecoregions.

A significant achievement following on from this was the adoption at an Experts' Meeting in Cameroon of the principle of

ecoregion conservation and of WWF's biodiversity vision map for the Congo Basin. This decision was taken to prepare the agenda for the first Ministerial Meeting to evaluate progress since the 'Yaoundé Declaration' of March 1999. The concept of ecoregion conservation for the Congo Basin's forests has therefore become not only WWF's agenda, but also that of Central African governments.

The Permanent Evaluation Committee, established by the government of Cameroon to ensure that conservation commitments are followed up within the country, adopted an Emergency Action Plan to address issues in the forestry and wildlife sectors. A highly positive initiative to which the government has committed an estimated US\$10.8 million, the Plan focuses on the control of illegal exploitation of forest and wildlife resources, involvement of local communities in forest management, and cross-border initiatives.

Cameroon has also gazetted two new National Parks — Campo-Maan (254,964ha) and Mbam et Djerem (416,964ha) — bringing the total of forest protected areas to 1,651,400ha (some 3.5% of the national territory or 8.25% of the humid forest zone). The government has also agreed to merge Boumba Bek and Nki forests to protect the corridor between them, forming a single protected area of 750,000ha.

Arguably the most important development in Cameroon resulting from the Yaoundé Declaration is the very positive reforms in the forest and wildlife sectors. Anti-poaching

patrols and enforcement have been strengthened, and external audits of the logging sector have led to fines and suspension for companies not conforming to their licence requirements. Some 20 new forest concessions attributed in a clearer and more transparent process give hope for change from past practices in Cameroon.

Significant progress was also made on the development of a tri-national park between Lobeke in Cameroon, Nouabalé-Ndoki in the Republic of Congo, and Dzanga-Ndoki in the Central African Republic, with the

possibility of merging the three protected areas into a single Sangha National Park covering some 2 million ha.

The current focus of WWF's forest work in West Africa is on advocating for conservation action in the Guinean Moist Forest ecoregion in partnership with the region's governments and other international NGOs such as Conservation International, BirdLife International, and Flora and Fauna International (FFI).

In Madagascar, WWF maintained support for the government's strategy to strengthen the country's

Protecting larger landscapes in Gabon

By linking landscapes across national frontiers, protected areas can contribute to effective forest conservation at a much larger, ecoregional scale. The DGIS-WWF Tropical Forest Portfolio is contributing to developing this approach in three countries: Gabon, Cameroon, and Congo.

The 30,000km² Minkébé Forest in north-east Gabon is probably the largest intact rainforest block left in the Western Congo Basin Moist Forests ecoregion in Central Africa. In 1997, the Gabonese government made a Gift to the Earth by designating 6,000km² of this wilderness stronghold as a forest reserve, prohibiting logging. For the reserve to be seen to conserve natural processes in a global context, an ecoregional approach is being pursued that will link conservation efforts across national borders. This requires coordinated efforts at national, landscape and site levels.

At the national level it will mean knowing that key policy decisions are made in the national and provincial capitals; the project is actively engaging partners in these strategic places. At the landscape level, DGIS-WWF and its partners ECOFAC ('Ecosystèmes Forestiers d'Afrique Centrale' — a regional programme of the European Union) and PRGIE ('Programme Régional de Gestion de l'Information Environnementale' — a regional programme of the World Bank), in collaboration with the various government agencies, are currently creating a trans-border complex of protected areas and management zones in the Gabon-Congo-Cameroon border region, where Minkébé is one of the cornerstones. And at the site level, an effective patrolling service has been established in which teams led by well-qualified people are able to discuss knowledgeably issues with resource users and authorities, as well as collect biological and socio-economic information.

protected area network, backed by public environmental awareness programmes. During the past year, WWF supported development of village forest management plans involving local communities. Six of these have since been approved by the Madagascan Forest Service, and project staff and the villagers are currently working on contracts to transfer management of village forests to local people.

Training in selective logging will be given, with the first monetary returns from the sale of selectively harvested wood expected within a year. The legal transfer of management responsibility and the economic benefits derived should help to convince other villages of the potential benefits of the forest, and lead to a decrease in forest clearing.

In East Africa, WWF continued to support ongoing projects within the Albertine Rift Montane Forest ecoregion, while exploring opportunities to scale up and integrate individual protection activities into a single conservation plan for the whole ecoregion. In the coming year, activities will be scaled up within the Inhambane Coastal Forests ecoregion, which extends over the four countries of Somalia, Kenya, Tanzania, and Mozambique.

Interventions by the International Gorilla Conservation Programme (IGCP) — a partnership between WWF, the African Wildlife Foundation and FFI — saved 5 per cent of the 'Parc des Volcans' in Rwanda (the home of the mountain gorilla) from imminent conversion to farmland for smallholders. IGCP

Conserving ecoregions

Temperate forests in the Caucasus

Located where the continents of Europe and Asia meet, the Caucasus ecoregion forms a strip of land between the Black and Caspian Seas covering 440,000km² and five countries: Armenia, Azerbaidzan, Georgia, Russia, and Turkey. Here, plant and animal species from Europe, Central Asia and the Middle East, and North Africa mingle with endemics found nowhere else. Some 1,600 plant species are unique to this part of the world. Among fauna are curiosities such as the long-clawed mole-vole and the rare Caucasian leopard. Widespread throughout the Caucasus a century ago, this big cat is now near extinction.

From a biodiversity standpoint, forest landscapes are the most important feature of the Caucasus, covering approximately 20 per cent of the ecoregion. They range from broadleaf, dark coniferous, pine, and open woodlands, to floodplain forests. Formerly widespread in the lower mountain slopes and lowlands, they have receded as land has been cleared for agriculture and grazing.

Since the collapse of the Soviet Union a decade ago, the people of the Caucasus have faced severe economic crises, resulting in an expansion of illegal logging and trade in timber and other resources, and a dependence by local communities on firewood for fuel that is between 200 and 300 per cent higher than in the 1980s. Poaching has increased significantly, affecting animals such as leopard, brown bear, bison, red deer, and ibex.

WWF's vision is to improve the protected areas network in the Caucasus ecoregion in order to conserve the remaining populations of plants and animals. New protected areas have been established and existing ones extended. The successful establishment of the Borjomi-Kharagauli National Park has been the result of a long-term cooperation between Georgia's Department of Protected Areas, the German aid agency

'Kreditanstalt fuer Wiederaufbau' (KfW) and WWF's Georgia Project Office in Tbilisi.



Ibex. WWF-Canon/Helmut Diller

From its base in the Georgian capital, WWF conducts its ecoregional operations. Activities include promotion of FSC certification, the conservation of cultural and natural heritage, promoting environmental awareness in schools and education centres, and training programmes for journalists, teachers and decision-makers.

undertook sensitive lobbying at the highest level in Rwanda, highlighting the ecological and economic importance of the park at national and international levels. IGCP was also successful in preventing the construction of a road that would have bisected the park.

In Tanzania, WWF supported the development of management plans for three forest reserves, including the newly gazetted Zaraninge Local Authority Forest Reserve — the biggest stretch of coastal forest in the country, covering 17,869ha. Three new sacred (*kaya*) forests covering about 447ha were designated as National Monuments in Kenya during the year. This brings the total number of protected *kaya* forests to 43, covering a total area of 3,000ha.

Despite the unsettled political situation in Zimbabwe, 2,500,000ha of wildlife areas in the Campfire districts were maintained, while 900,300ha of Zambezian woodlands and miombo forest were established as new communal conservancies in the Caprivi province of Namibia. This brings the total area of conservancies in Namibia to 2,253,700ha.

WWF's work in southern Africa also takes in the Fynbos ecoregion (see page 42). Here, the major achievement in the past year has been the completion of the Cape Action Plan for the Environment (CAPE). The Plan is the result of two years of analysis, consultation and planning, coordinated and managed on behalf of the South African government by WWF-South Africa and involving a wide range of stakeholders.



Quiver tree and wildflowers in the Geogab Nature Reserve, Western Cape, South Africa.

WWF-Canon/Martin Harvey

Asia and the Pacific

Over the last 30 years, the Asia/Pacific region has lost 30 per cent of its forest cover. Given this high rate of forest loss, it is perhaps appropriate that WWF concentrates a higher percentage of its Asia/Pacific resources on forest conservation (45%) than it does on the other issues of global importance. The forests of Indochina, Malaysia, Indonesia, and the South Pacific form the principal focus.

In Indochina, WWF has heightened the awareness of and interest for FSC standards among policy-makers, local authorities and industry, contributing also to proposed national standards for forestry in Vietnam. Several new enterprises are now interested in acquiring FSC certification.

WWF-Malaysia has been very active in its forest certification efforts, striving to promote FSC in the country and harmonizing FSC standards with the national certification standard (MC&I) for greater market acceptance, as well as

preparing assessment and chain of custody documents for field inspections.

Elsewhere, WWF-Japan helped the 1,070ha Hayami Forest, south-east of Osaka, to become the first Japanese forest to earn FSC certification. It also assisted with the training of certification assessors. WWF-New Zealand is currently working on fundraising, standards development, and expanding industry interest in the FSC. In China, WWF co-hosted the first-ever international certification conference, while in Hong Kong WWF has been working on the market side of forest certification, attempting to create a forest trade network. And in Vietnam, community involvement in conservation was stepped up through forest projects focusing on enrichment planting, buffer zones, and resource mapping.

Within the Philippine Moist Forests ecoregion, the DGIS-WWF Tropical Forest Portfolio project on Sibuyan Island is focusing its efforts on community organizing to bring about sustainable alternative livelihoods for thousands of disgruntled islanders who have lost access to land due to the creation of the Mt Guiting-Guiting Nature Park. Indigenous communities consisting of over 400 families reside in and around Mt Guiting-Guiting. A key aspect to providing these communities with sustainable alternatives to illegal forest cutting and clearing is defining and delineating their ancestral domains and obtaining legal rights over them. WWF, in collaboration with Anthropology Watch, the Legal Assistance Centre for Indigenous Filipinos

and the Philippine Association for Intercultural Development, has assisted the *Sibuyan Mangyan Tagabukid* in their application for a Certificate of Ancestral Domain Title and the formulation of their Ancestral Domain Sustainable Development and Protection Plan.

Local communities in Malaysia became involved in WWF work to develop ecotourism in the highland forests of Ulu Padas. WWF-Indonesia meanwhile focused efforts to improve people's livelihoods and economic outlook in several national parks, and in developing Village Conservation Agreements in dozens of villages in Sumatra and Kalimantan. And in Papua New Guinea, WWF involved communities in the development of a community-based forestry and conservation project.

Increasingly, WWF offices are playing a significant role in the conservation decision-making of governments and major donors. The Asian Development Bank, for instance, asked the WWF Indochina office to take part in the Forestry Sector Review in Cambodia. In Malaysia, WWF was appointed to the country's National Timber Certification Council, assisted the Economic Planning Unit in developing an integrated land-use plan in the Peninsular's Main Range, and was invited by government to help identify national conservation priorities for the next ten years. In Indonesia, WWF's Wallacea Programme was made a member of the Provincial Steering Committee for integrated coastal management in Bali.

In Nepal, the government

declared a 900 sq km extension to the Royal Bardia National Park as a Gift to the Earth. The extension will afford more protection to wildlife and better watershed management in the fragile Churia Hills. Also in Bardia, which lies within the Eastern Himalayas ecoregion complex, community-managed schemes at 12 sites helped regenerate 568ha of natural forests, while community user groups protected 1,400ha of

forest in Dhorpatan Hunting Reserve.

In Pakistan, the DGIS-WWF Tropical Forest Portfolio has been primarily focusing its efforts on replanting mangroves and bringing these forested areas under sustainable community management. However, it became apparent by analysing the root causes of biodiversity loss in Pakistan's mangrove ecosystems that the greatest impacts were from

Conserving and valuing places where nature, culture and people meet

One of the most recurrent preoccupations of conservation organizations and protected area managers has for a long time been how to reconcile nature conservation with meeting the needs of people living in or around protected areas, or in other fragile, important ecosystems. As poverty strikes most of the priority conservation areas within the Global 200 Ecoregions, this becomes even more pressing, because long-term conservation is not possible where people have no security of meeting day-to-day survival challenges.

Ecotourism has been promoted as a primary tool for addressing the conservation-and-people interface at the community level in those areas. For more than a decade, WWF has been monitoring ecotourism and nature-oriented tourism developments, and has more than once drawn attention to the threats and impacts they pose to nature when not properly planned and implemented. However, under certain circumstances, tourism can be a positive tool for conservation and sustainable development.

Over the last few years, community-based ecotourism has become an increasingly important facet of WWF's projects the world over, for example in the Arctic, southern Africa, Brazil, Central and Eastern Europe, and Malaysia. In all these places, WWF has become a visible player in the drive towards ecologically sustainable and socially beneficial ecotourism with local communities. Realizing the relevance of this issue for the conservation of forests, freshwater ecosystems, and marine and coastal areas, as well as the growing relevance it has as a component of ecoregion conservation plans, WWF has developed a database on worldwide expertise on ecotourism, and a set of guidelines on community-based ecotourism. In addition, a series of tourism policy papers addresses such fundamental subjects as climate change and tourism; tourism certification; and trade, tourism and the environment. Training approaches and other materials are also in the pipeline.

activities ‘upstream’ from where the project is working. Pollution, the diminishing supply of freshwater due to agriculture, and overexploitation of fish stocks were identified as the constraining factors. Currently, efforts to conserve the mangrove forests of Balochistan, and the livelihoods that depend on them, are being negatively impacted by these factors. WWF-Pakistan is now working with local and national government authorities to address the issues of pollution, agricultural policy and illegal fishing while continuing with its work at the community level, effectively linking its field-based programme with regional and national policy initiatives.

The government of Bhutan announced as a Gift to the Earth the designation of 12 biological corridors, totalling 3,828km², linking several of the country’s protected areas.

Australia’s Federal Taxation Law Amendment Act No. 8 was enacted, providing substantially greater tax incentives for the donation of land of conservation importance to conservation organizations. Additionally, the New South Wales government adopted a proposal for a statutory conservation trust to dramatically accelerate vegetation conservation on private land. WWF-Australia’s proposal for multi-species recovery planning and integration of threatened species recovery into regional and national planning and implementation processes was adopted by the Australian government and incorporated into the new Recovery Planning Guidelines.

Within WWF’s Asia/Pacific

‘Forest Futures Programme’, launched in September 2000 to promote changes in policies and practices for sensitive management of timber-producing woodlands, campaigns will be carried out to promote FSC certification and fight against

certification scheme currently available at a global scale.

Whilst other certification schemes have been developed in Europe, especially the Pan-European Forest Certification scheme (PEFC), they are mainly supported by representative



The WWF wetlands centre at Sandspit, Sindh, Pakistan, helps to raise awareness of the importance of mangrove forests.

illegal logging. Also on the agenda is development of a Forest Trade Network for the Asia/Pacific region. Regional efforts will also focus on decreasing Asia’s ‘footprint’—its impact on the Earth and its natural resources — particularly timber consumption in China and Japan.

Europe and the Middle East

WWF has been placing strong emphasis on certification with its ‘European Certification Initiative’. Working in partnership with other major European NGOs, WWF has promoted the Forest Stewardship Council (FSC) as the only environmentally appropriate, socially beneficial, and economically viable forest

organizations of European private forest owners who fear that stronger FSC guidelines could interfere with their members’ usual forestry practices. Through in-depth analyses and regional reviews, WWF has countered PEFC claims of guaranteed good forest management.

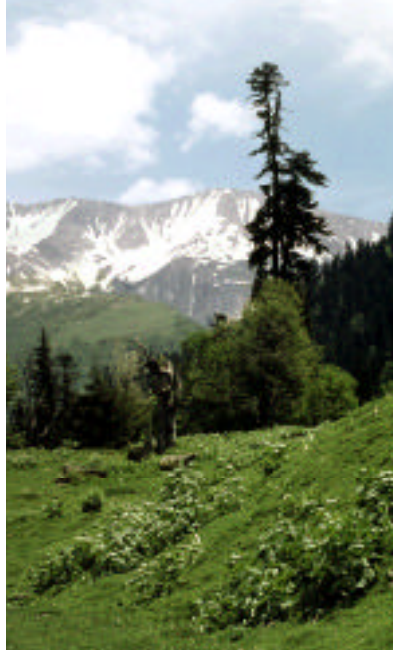
To encourage small forest owners to join the FSC, WWF has developed a group certification kit designed to help groups of forest owners and managers with the application and control procedures necessary for attaining FSC certification at low cost.

Over 15 million ha of forests in 17 European countries are now certified according to FSC standards. Existing partnerships have been strengthened — e.g. with AssiDomän, one of

Europe's leading forest products companies — and new ones started. More companies are joining the Global Forest and Trade Network, including giants like IKEA, B&Q in the UK, OBI in Germany, Decospan in Belgium, and Castorama in France. A poster campaign featuring James Bond actor Pierce Brosnan promoting the FSC brand continues to appear widely across Europe, while in the UK *BBC Wildlife* now prints its magazine on FSC-certified paper.

In April, Romania's president, Ion Iliescu, announced at the Summit on Environment and Sustainable Development in the Danube-Carpathian region that Romania will soon initiate FSC certification. A trial area of 32,000ha is to be assessed according to FSC principles and criteria for responsible forestry. Romania's woodlands cover 6.2 million ha and include some of Europe's last remaining virgin forests. By mid-2002, WWF estimates that up to 120,000ha of Romania's forests could be certified.

Other countries in Central and Eastern Europe, such as Bulgaria, Croatia, Estonia, Hungary, Latvia, Russia and Slovakia are also set to pursue the first FSC certifications of their forests and forest products. The Latvian government, for example, has already announced its commitment to FSC standards on public lands, representing two-thirds of all forested land in the country. WWF will also track the implementation of national FSC standards in Georgia and Armenia, countries with valuable forests in the Caucasus ecoregion, and in the



Forests, grazing land and snow-covered peaks in the central Caucasus, Georgia.

WWF-Canon/Hartmut Jungius

Danube/Carpathians ecoregion where at least five countries have indicated a desire to adopt FSC standards.

During 2001, WWF launched the 'European Forest Scorecards' report, giving an assessment of how 19 European countries treat their forests. Even though some countries scored highly, and Switzerland did particularly well in its social and cultural care of forests, the overall impression was that each country must improve its stewardship of forests if they are to meet commitments made at the Rio Earth Summit in 1992 and the 1993 Helsinki Pan-European Ministerial Conference on the Protection of Europe's Forests. Out of a possible maximum score of 100 points on forest protection, even the highest-scoring country, Slovakia, scored only 66 points, the average being just 45. Only Greece, Latvia and Poland have made clear commitments to retain and increase the area and quality of forest protected areas to a level needed to sustain viable populations of plant and animal life.

WWF was successful in protecting a few key forests in the Mediterranean, where the original forest cover has been reduced to 16 per cent. In addition to the legal protection of 35,000ha of virgin forest habitats in Turkey's Kure mountains, in Croatia joint efforts by the Croatian Ministry of Environment, the NGO Green Action (Friends of the Earth-Croatia), the Croatian Forest Research Institute Jastrebarsko, and WWF resulted in an agreement to improve the protection of the Velebit forests which host some of the few remnant old-growth forests in the Mediterranean. Threats to the forests, which extend over 200,000ha, come from water pollution, forest fires, and transboundary air pollution, as well as excessive road construction and tourism.

Other forest protected area projects in process include an exciting trans-boundary reserve planned by the governments of Turkey and Georgia. Set in a remote region which has suffered conflict in past centuries, this bilateral initiative will be a significant step towards further protection of the Global 200 Caucasus ecoregion. In Hungary, WWF has set up a conservation research project for the Euro-Siberian steppe oak woods, which exemplify the natural richness of the countries looking to accede to the European Union.

To counter possible threats from the increasing volume of tourists visiting forest reserves and protected areas in Europe, WWF's innovative PAN Parks scheme is working to reduce the impacts of tourism in

European protected areas. A pilot project carried out in Bialowieza forest in eastern Poland highlighted the touristic values of Europe's largest remaining lowland primary forest, which also hosts Europe's oldest and strongest population of bison.

WWF will continue to influence decision-making in European forest policy. WWF wants to see forest legislation improved to guarantee more environmentally friendly wood production, improved natural quality of forests, increased forest protection and reduced pollution.

Latin America and the Caribbean

Nearly one billion hectares of natural forest blanket the continents of the Latin America and Caribbean region. WWF continues to champion forest conservation projects from the dry forests of Mexico's Chihuahuan Desert to the temperate rainforests of southern Chile and Argentina. Despite these efforts, agricultural expansion, cattle raising, unsustainable timber exploitation, and harmful construction projects continue to threaten the biological and landscape diversity of the region's forests.

In order to reduce these threats, WWF has collaborated with a large and diverse group of partners, from the smallest community organization to the largest international aid and development agencies. In the realm of forests, these collaborations have focused on protected areas, sustainable forest management through

Conserving ecoregions

The Valdivian forests

The Valdivian forests of southern Chile and Argentina are one of the world's five temperate rainforests and house some of the most rare and unique species of plants and animals on the South American continent. The long isolation of this region from other tropical or temperate forests has led to the development of extraordinary levels of endemism, making the ecoregion a veritable biogeographic island and one of the rarest forests on the planet.

Unusual species derive in large part from those of the ancient supercontinent, Gondwanaland. Chief among them is the remarkable alerce (*Fitzroya cupressoides*), a tree that frequently reaches more than 100 metres in height and surpasses 3,000 years in age. The stands of alerce, like the neighbouring stands of monkey puzzle and southern beech of the Valdivian ecoregion, shelter both the endangered pudu deer and the Andean deer.

An estimated 72,000km² of Valdivian forest blanketed both slopes of the southern Andes at the time of the European arrival in South America. Conversion to exotic plantations and pasture, logging for firewood and woodchip, infrastructure projects, burning, and overgrazing have reduced this figure by 60 per cent.

WWF has helped reverse this trend of forest destruction and degradation by tackling threats from local to national levels. For example, WWF has successfully promoted the sustainable harvest of the Chilean hazelnut by local women's groups, effectively diminishing the pressure on less-renewable forest resources. At the same time, WWF and local NGOs and stakeholders have moved the Valdivian ecoregion to the top of the national conservation agenda in Chile and Argentina. By helping mould the Non-timber Forest Products Network, the Working Group on Private Conservation, and the Coastal Coalition, WWF and its partners have successfully spearheaded a progressive conservation programme that will ultimately conserve the remaining forests and improve the social and economic conditions of the ecoregion's local indigenous and *mestizo* communities.



Monkey puzzle trees in the Valdivian forest. WWF-Canon/Edward Parker

voluntary certification, and forest restoration.

WWF continues to be a leader in supporting and developing protected areas in the region, and has made significant strides away from the traditional model that perceives human beings as threats to conservation. In Colombia, for example, WWF has been essential in helping to further the concept of private reserves and has been instrumental in supporting the establishment of seven new private reserves in the Central Andes.

WWF-Brazil, supported by WWF-US, continues to move toward the eventual approval of the Amazon Region Protected Areas Project (ARPA). This US\$270 million dollar project, financed in part through the GEF, will represent an achievement of global importance: the promulgation of 28.5 million ha of new protected areas and the improved management of 12.5 million ha of existing parks and reserves.

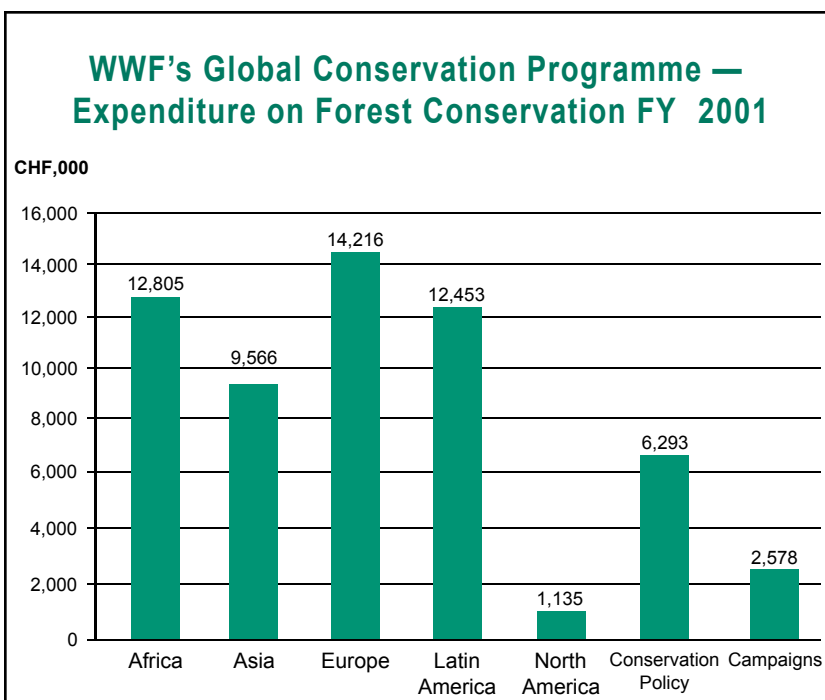
Bolivia continues to lead the way in terms of forest certification, with nearly one million ha of certified forests representing almost 35 per cent of the regional total of 2.8 million ha. WWF's Bolivia office has provided project coordination for the strengthening of community certification efforts in Bolivia, Brazil, Colombia, Ecuador, Guatemala, and Mexico.

The FSC certification of 140,658ha of native forest located in the municipal district of Paragominas, in the state of Pará, Brazil, has increased by 20 per cent the certified forest area in the Brazilian Amazon. The contribution, by forest owners Cikel Brasil Verde SA, brings the total in Brazil as a whole to 870,511ha. Some 50 timber-providing tree species are managed in Cikel's new certified forest and the company plans to have the rest of its forests (another 65,753ha) certified by 2003. The company annually produces 120,000 cubic metres

of sawn wood, plywood and other products.

WWF's Central American office continues to pioneer the improvement of community certification with the indigenous and *mestizo* communities of northern Guatemala and southern Mexico.

Forest restoration, the newest of WWF's three targets, has significant potential in the Latin America and Caribbean region, especially in the Valdivian forests of Chile and Argentina, the Interior Atlantic Forests of Brazil, Argentina, and Paraguay, and the many degraded landscapes throughout the Central American Isthmus. Far more than simply tree planting, forest landscape restoration aims to regain complete ecological integrity and enhance human well-being by improving representation of forest species and communities, increasing forest resilience to climate change, and connecting forest habitats outside protected areas.



freshwater

Conserving the world's freshwater environment and its wildlife is one of society's most challenging tasks. And yet, despite the growing awareness of the value of wetlands and fresh water to our very survival, we continue to destroy, pollute, and degrade this fragile and precious resource at a frightening rate.

Faced with declining water availability and quality, many governments and industries have resorted to engineering solutions, such as the construction of large dams for water storage and canals for carrying water to areas suffering shortages or drought. WWF's challenge is to convince the world's leaders to work with nature rather than against it.

WWF's priorities will be the protection and sound management of wetlands, changing the laws, policies, and practices associated with dams, dikes, and rivers, and influencing the way in which water is used by industry and agriculture as well as in people's daily lives.

Jamie Pittock
Director, Living Waters Programme

WWF's vision for freshwater

WWF's vision for freshwater ecosystems is that healthy wetlands around the world will enhance the quality of life and people will be convinced as to the value of nature as the source of water.

Targets

To achieve its vision for freshwater, WWF's Living Waters Programme has set three global targets:

- By 2010, 250 million hectares of high-priority



White pelicans and lesser flamingos at Lake Nakuru, Kenya.

WWF-Canon/Donald Miller

Global highlights

- Launched in May 1999, WWF's Living Waters Campaign exceeded its global target to protect 25 million hectares of freshwater wetlands over three years one year ahead of schedule.
- Niger became the first of the four Lake Chad basin countries in Africa to designate its part of Africa's fourth largest lake as a Ramsar site.
- In the Mediterranean, WWF worked closely with the MedWet Initiative to secure the designation, on World Wetlands Day, 2 February, of ten wetlands covering nearly 2 million ha.
- WWF contributed to the World Commission on Dams' new guidelines to improve the technical, social and environmental performance of dams.
- The Pantanal, the world's largest wetland, shared by Brazil, Bolivia and Paraguay, was declared a UNESCO Biosphere Reserve in Brazil in November 2000, with the Bolivian part (3 million hectares) designated a wetland of international importance under the Ramsar Convention in September 2001.
- WWF's report on bottled water sparked a new debate on all continents on the implications of the bottled water market for tap water supplies and the environment.

freshwater ecosystems worldwide are protected and/or sustainably managed

- By 2010, ecological processes are maintained or restored in at least 50 large catchment areas containing high-priority freshwater ecosystems.
- By 2010, private sector practices and related government policies concerning key water-using sectors are established and/or changed in order to sustain the integrity of the freshwater ecosystems on which they depend and/or impact.

To address these targets, WWF has identified three themes with which to engage the widest possible diversity of people and decision-makers to make strategic shifts in the use of freshwater ecosystems and resources:

- ‘Web of Life’ — conserving networks of representative freshwater ecosystems and biodiversity
- ‘Rules of the Game’ — changing the direction of conventional approaches to water resources management
- ‘Markets and Lifestyles’ — improving resource use in water intensive products.

By focusing on these themes and targets, WWF aims to halt and reverse the loss of freshwater plants and animals and the wetlands in which they occur, and to prevent the disruption of natural processes that support life in rivers, lakes

and groundwaters. WWF will also contribute to economic and social well-being by promoting environmentally sound management of freshwater resources that improves access and availability to water for drinking, food production, energy generation, and other social uses.

Freshwater conservation highlights

Overview

Floods, drought, and conflicts over water increasingly dominate the headlines in many countries. Although not as immediately dramatic, the long-term loss of freshwater ecosystems may result in equal hardship for people in many parts of the world. Conserving wetlands is therefore being recognized as the right approach to responding to the needs of people, as well as wildlife. In 2001, WWF played a strong role in keeping attention on these issues.

WWF’s ‘Living Waters Campaign’ worked worldwide to make the year a significant turning point in how freshwater places and resources are managed for people and nature. Through campaigning activities like those outlined below and literally hundreds of projects around the world to conserve and restore natural wetlands, WWF operated at all levels to tackle the growing freshwater crisis:

- The EU’s new Water Framework Directive, the Danube ‘Heads of State’ Summit, and the Bonn Water Conference in advance of the

World Summit on Sustainable Development all pointed to promising, potentially exciting new developments.

- With over 10 million ha of wetlands committed for protection during the year, WWF exceeded its global target for the protection of 25 million ha one year early.
- The Pantanal, the world’s largest wetland was declared a UNESCO Biosphere reserve in Brazil in November 2000, with its Bolivian part (covering 3 million ha) designated a wetland of international importance under the Ramsar Convention in September 2001, as well as a Gift to the Earth.
- During the first-ever international ‘World Wetlands Week’ — a new concept launched by WWF in February 2001 — Algeria provided a highpoint with ceremonies to mark the protection of wetlands, including rare desert ecosystems such as gueltas and oases, totalling nearly 2 million ha.
- Of the four countries — Cameroon, Chad, Niger, and Nigeria — that share Lake Chad, Niger became the first to designate its part of Africa’s fourth largest lake as a Ramsar site, honouring a commitment made in N’Djamena in July 2000 at the Heads of State summit of the Lake Chad basin countries. The other countries are expected to follow

Conserving ecoregions

Lake Malawi

Lake Malawi/Niassa/Nyasa is home to one of the richest freshwater fish faunas in the world. The lake falls within the national territories of Malawi (Lake Malawi), Mozambique (Lake Niassa), and Tanzania (Lake Nyasa) and although overfished and subject to increasing silt deposition in parts, it is largely unspoiled. The lake probably holds more species of fish than any other lake in the world — about 14 per cent of the world's freshwater species (99% of which are endemic to the lake).

The deterioration of natural resources within the lake and its catchments, particularly in Malawi, are of increasing concern and several policy and legislative measures have been put in place to conserve the resources. The lake's exceptional fish fauna is at particular risk from fishing pressure which is concentrated in the shallow waters where most of the fish congregate. Pollution and sedimentation of the lake are associated with nutrient influxes, reduced light penetration, and changes in algae.



Catch of the day — an eel taken from Lake Malawi.

WWF/Anthony Ribbink

WWF's approach to conserving the lake is founded on earlier collaborative initiatives. Since 1998, WWF has been developing a common vision among stakeholders, and better coordination of efforts to conserve the lake and its catchments. For example, in 1999 WWF's southern Africa office in Harare, Zimbabwe, in conjunction with the Peace Parks Foundation, co-funded a trilateral meeting at which participants from the three countries concluded that the lake is a shared ecosystem. They agreed that a much wider area than just the lake needs to be protected, that tourism should be enhanced, and that jobs should be created to contribute to poverty alleviation.

All three countries have since adopted similar environmental policies and laws. However the institutional capacity to implement them remains weak. As one innovative solution to this issue, Malawi has adopted a National Fishery and Aquaculture Policy that is attempting to place the management and control of the fisheries resources in the hands of local communities. Recognizing the need to control and monitor the management of all resources in the lake basin in a coordinated way, the concept of a 'Transfrontier Natural Resources Management Area' is now firmly on the policy agenda of the three riparian countries.

Niger's example by the next World Wetlands Week in February 2002.

- The importance of mountain wetlands to water supply and river basin management were amongst topics discussed at a symposium organized by WWF and the Ramsar Convention Bureau in Evian, France in March 2001. The meeting endorsed a set of draft guidelines for the conservation of mountain wetlands, which will be submitted for adoption at the 8th Conference of Parties to the Ramsar Convention in November 2002.
- A report on bottled water received unprecedented television, internet, radio and print media coverage on all continents, and demonstrated that bottled water was not a sustainable alternative to careful management of tap water supplies and the environment upon which it depends.
- On World Water Day, 22 March 2001, WWF launched a website highlighting globally important 'Rivers at Risk' and inviting people to take action, such as reducing their consumption of water in the home, that would benefit freshwater ecosystems.
- WWF contributed and gave strong backing to the recommendations of the report of the World Commission on Dams — *Dams and Development* — released at the end of 2000. This was underscored by

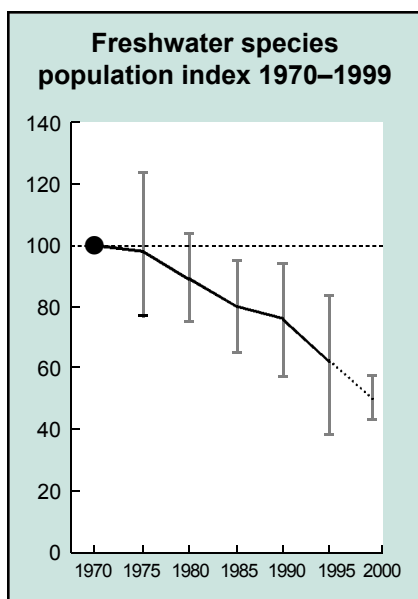
Consuming the Earth's natural capital

Globalization is creating vast opportunities and benefits for many countries, industries and individuals worldwide. But it is also bringing new and enormous challenges that are cultural, economic, environmental, and political in nature, as well as growing unease and discontent. The benefits of globalization are not evenly shared, and many people are being left behind.

Globalization, and the expansion of the world economy — driven by increases in trade and investment flows — are also having dramatic implications for the quality of the environment: marine life in the oceans, forests in tropical countries, and drinking water supplies all over the world that are being depleted at faster and faster rates.

According to WWF's *Living Planet Report 2000*, the natural wealth of the Earth's forests, freshwater ecosystems, and oceans and coasts decreased by about 33 per cent between 1970 and 1999. The current pattern of globalization, driven by trade liberalization and the expansion of the world economy, is set to further environmental destruction unless markets are geared to serve sustainable development outcomes and environment is put at the heart of trade liberalization efforts.

During the 1970s, humanity as a whole passed the point at which it lived within the global regenerative capacity of the Earth. Since then, the world economy has been running at an ecological deficit: natural capital — resources such as natural or managed forests, oceanic fisheries, and agricultural land — is being depleted at a faster rate than the interest — the goods and services (crops, fish, meat, wood, energy, etc.) — they provide. Hence we are witnessing a decline in the wealth of the Earth's forest, freshwater and marine ecosystems as we attempt to squeeze more from them than they can produce. But for how long? Economic growth and expansion of world trade can only last for as long as the Earth's natural systems can sustain a depletion of their capital stock.



WWF's Living Planet Index shows that freshwater biodiversity is declining at a rate faster than life in marine and terrestrial ecosystems. Over half the world's wetlands were destroyed during the 20th century. Today, half of the world's population lacks adequate sanitation, a fifth cannot access clean drinking water, and two-thirds will face serious water shortages by 2025.

Source: Living Planet Report 2000

follow-up studies on dams and flooding, the economics of water diversion projects, and on renewable — non-hydropower — energy sources.

The ongoing loss of wetlands and their dynamic natural processes are among the main causes of the steep decline in the health of freshwater systems worldwide. To ensure future supplies of freshwater, food and other materials that wetlands provide on a daily basis requires improved protection for and management of wetlands. At present, 65–70 million ha of freshwater ecosystems have formal protection under the Ramsar Convention or as UNESCO Biosphere Reserves. This figure probably represents less than 10 per cent of the global freshwater ecosystem resource. (The global total under Ramsar was 81 million ha in June 2001 but this includes marine/coastal wetlands).

Over the past two years WWF has made remarkable progress in adding more than 30 million ha to the global total of wetlands committed for protection. WWF will build on this with the aim of achieving protection for a further 40 million ha by 2005. This can only be achieved by continuing the effective partnerships developed with the Ramsar Convention Bureau and its 125 signatory governments, and with leading companies in the private sector, as well as private landowners. WWF will give special attention to securing protection for networks of wetland sites in key ecoregions, promoting better management of these areas, and reducing threats

to them from harmful activities in upstream catchments.

The creation of dams, river diversions and other construction projects have all had serious impacts on ecoregions and their freshwater components. The new guidelines presented by the World Commission on Dams provide an opportunity to change practices on the ground. The challenge for all those involved is to use the guidelines to improve the technical, social and environmental performance of dams everywhere. WWF is working with partner organizations, governments and relevant sectors in business and industry to put the guidelines into practice. Partnerships are being explored with, for example, the Mekong River Commission, the Niger Basin Authority, and stakeholders involved in the 'Nile Basin Dialogue', as well as with key countries, to work towards adopting best practices for river basin management. WWF is also advocating that international financial institutions — among the main sources of funding for dams in developing countries — sign up to a verifiable 'code of conduct' as part of their commitment to social and environmental issues.

Many industrial sectors use, treat, or pollute water in the course of manufacturing their products. Water supply and drinks companies are a sector of special relevance since their product is water, albeit in diverse forms following treatment, processing or bottling. Manufacturing processes that use large amounts of water or which result in polluting effluents have the



Women mixing mortar for a cistern at Lake Nakuru, Kenya.

WWF-Canon/Donald Miller

greatest impacts on freshwater wetlands and their life forms. In extreme cases such as the Aral Sea, they have led to the economic and environmental collapse of an entire region. WWF is initiating dialogue with several major companies with the aim of promoting practices that respect natural water sources and at the same time provide better services or products to consumers. It is hoped that partnering with the private sector may lead to market-led approaches that put pressure on all water users to improve their practices, increase the efficiency of water use, and reduce pollution.

Africa and Madagascar

In Africa, WWF continued to focus on four main freshwater ecosystems: Lake Bogoria and Lake Nakuru in Kenya; and Kafue Flats and Bangweulu Wetlands in Zambia. In addition, the process for conserving the Lake Malawi section of the Rift Valley Lakes ecoregion got underway.

Notable targets met during the year under the Lake Bogoria Nature Reserve and Saiwa Swamp National Park project included the completion of the Saiwa education centre, publication of the management

plan for the National Park, and furnishing of the education centre at Lake Bogoria.

The Nakuru project continued to make great strides despite many obstacles, such as inadequate rainfall, extensive use of restricted pesticides, and encroachment on natural forest cover. A positive step forward was the assumption of responsibility by 24 village communities for planning and coordinating their own consensus-based environmental action plans. A further 16 villages are currently engaged in the process and more are expected to follow. Other successes at Nakuru were the upswing in water conservation with the excavation of 101 new earthen dams by farmers to contain run-off, the training of 3,000 women in conservation skills, and the production of 15kg of assorted tree seeds by the first community-managed seed orchards. Despite adverse weather conditions, 108 self-supporting tree nurseries raised 115,000 seedlings. Lesser flamingos returned to Lake Nakuru after a two-year absence. On the negative side there were poor indications of the health of the local environment when the long-term study on the flamingos confirmed the build-up of heavy

metals and algal toxins in tissue samples, and further revealed that liver damage in the birds was widespread.

In Tanzania, WWF worked with the Tanzania National Parks authority to complete the first survey of the Tarangire/Manyara basin, resulting in a draft action plan for the wetlands. The focus of future efforts will be support for the practical conservation work in Lake Manyara and Tarangire National Parks, and on influencing policy decisions affecting the parks. Elsewhere, WWF worked closely with the Journalists Environmental Association of Tanzania to increase both journalists' and the general public's understanding of the importance of wetland systems across the country. The first of three training workshops for print and broadcast journalists was completed and dozens of articles and broadcasts were produced.

In Zambia, the final draft of the Zambia Wetlands Conservation Strategy and Action Plan was produced and now awaits the formal announcement by the government of the Wetlands Policy for Zambia. Activities under the WWF-Netherlands-sponsored Partners for Wetlands project at Kafue Flats included development of a detailed bibliography and documentation of the hydrology of the Kafue River and Flats, and a base map for the proposed conservation area in Mazabuka. The project also worked with communities in the Mazabuka conservation zone and completed an assessment for the reintroduction of wildlife species. Rapport with the communities in the Bangweulu

wetlands was enhanced by Community Development Unit meetings and a new proposal to monitor and conserve animal populations, in particular the lechwe. Elsewhere in Zambia, WWF is promoting further conservation commitments by the government, with planned designations of parts of the upper Zambesi floodplain and Lake Tanganyika as new Ramsar sites.

In the Niger River basin, a basin-wide initiative has been developed by WWF in partnership with Wetlands International and the Nigerian Conservation Foundation (NCF). The 'Niger Basin Initiative' includes actions at national and local levels, such as formal wetland protection, the establishment or reinforcement of 'wetland reference groups', and support to field projects. As a result of this approach, in June Niger designated a major area of the Niger floodplain, near the border with Benin and Nigeria, as a Ramsar site. A field demonstration project has subsequently been initiated there in partnership with the Swiss Development Cooperation.

During 2002, WWF's Eastern Africa office will explore opportunities for adopting an ecoregion approach to conserving the Eastern Rift Valley Lakes. The ecoregion covers ten African states: Burundi, Ethiopia, Kenya, Malawi, Mozambique, Uganda, Democratic Republic of Congo, Rwanda, Tanzania, and Zambia. To capture people's imagination and promote the ecoregional concept, flamingos will serve as a 'pink thread' linking the disparate lakes spread across these countries. This initiative

seeks to build on lessons from WWF's earlier work and will promote a more integrated approach to species and habitat conservation. Work will also start to develop ways of incorporating freshwater concerns into WWF action programmes for forest ecoregions.

Asia and the Pacific

WWF's *Living Planet Report 2000* indicated that the state of freshwater systems in the Asia/Pacific region have deteriorated considerably since 1980. In spite of this, there are currently only three countries in the region that have significant freshwater conservation programmes: China, Malaysia, and Australia. Given that species declines, river pollution, drinking water shortages, and water catchment destruction are prevalent in almost every country of the region, an increased focus on freshwater issues is crucial.

Most of the recent conservation gains in the region have been in achieving Ramsar status for wetlands. In India, ten sites covering nearly 1.1 million ha were added to the Ramsar list, more than doubling the number of the country's protected wetlands. Designations of more than 2 million additional ha of wetland are planned, enabling India to meet the commitment made during the May 1999 Conference of Parties to the Ramsar Convention. In Australia, national legislation championed by WWF now conserves Ramsar sites by regulating upstream developments to prevent significant impacts. The use of

Conserving ecoregions

The Amur River

Situated in the Russian Far East, the Amur River, at 4,400km, is the world's eighth longest river. It rises in the mountains of Inner Mongolia and curves through seemingly endless forests and taiga towards the Sea of Okhotsk. The river divides Russia and China, and is only bridged in two places.

The Amur's catchment contains a unique mix of sub-tropical and northern hemisphere flora and fauna, including 2,800 vascular plant species (of which 800 are endemic), and about 40,000 insect and 473 vertebrate species. Big cats like the famous Amur tiger and far-eastern leopard stroll through the virgin forests adjacent to the river, and birds such as oriental white stork, red-crowned and white-naped cranes nest in the Amur valley. The riverbanks and adjacent wetlands provide crucial stopovers for millions of migrating waterbirds.

Among almost 100 fish species, the famous Kaluga sturgeon can reach weights up to 1,000kg, while important populations of migratory salmon still occur, although their numbers are dwindling. Declines in the number of fish are affecting the lives of the Nivkhi, Nanai, and Ulchi indigenous peoples, who are struggling to continue their traditional ways of life.

The wetlands of the Amur River basin are being drained and converted into agricultural land, and the surrounding forests are being felled or burned for the same purpose. On the Russian side 40 per cent of the forest has gone; on the Chinese side only 47 per cent remains. Huge amounts of polluting effluent from industry and agriculture wash into the river from northern China to such an extent that the water is no longer fit for drinking and fish become poisonous to eat. Hydropower stations and dams are planned, with one dam built already on a tributary river. The impacts of these activities on the health of the ecoregion are truly dramatic.

Following calls by WWF for urgent action to protect the unique wetlands of the Amur, two new nature reserves and two wildlife refuges have been established to protect wildlife over an area of nearly 5,000km².

In partnership with IUCN, WWF has developed a conservation strategy for the oriental white stork, and scientific research into the conservation requirements of other flagship species, including Kaluga sturgeon and Amur river turtle, is underway. Other activities include the establishment of a protected areas network with trans-boundary reserves, restoration of the Amur floodplains, and the development of ecotourism opportunities.

By linking its resources in Russia, Mongolia, and China and working with a full range of stakeholders and partner organizations, WWF is working to overcome cultural differences and economic difficulties for the benefit of the Amur and its indigenous people and wildlife.

Ramsar to conserve privately owned wetlands was entrenched with the voluntary listing of 583ha of the Macquarie Marshes complex.

In China, more than 1,600ha of cultivated land were restored as wetlands, resulting in the return of migratory birds and fish. This achievement was accompanied by a strengthening of the national policy on restoring wetlands for flood mitigation. In addition, over 1.5 million ha of wetlands, including in the Yangtze basin, are in the process of being designated as Ramsar sites, hopefully by the time of World Wetland Week in February 2002. And in Hong Kong, new freshwater habitats were developed at the Mai Po Marshes Ramsar site.

In other developments, agreement was reached with local oil palm plantation owners to reforest parts of the Lower Kinabatangan Floodplain in Sabah, Malaysia. The state government designated 27,000ha of wetlands in the Lower Kinabatangan floodplain as a protected area. The area is an important refuge for orang utan, proboscis monkey, and Asian elephant, as well as being a vital source of freshwater for over 200,000 people. In Vietnam, the government recognized the importance of wetlands conservation for the country, and 71 freshwater bodies were nominated for potential protected area status.

Several major activities for freshwater conservation are currently under development. They include an initiative for Asian rivers which will define WWF's role in the Mekong, Yangtze, and Indus river basins;



The Danube River — five Eastern European countries committed to work together to prevent toxic spillages.

WWF-Canon/Michèle Dépraz

conservation projects along the Mekong River in Indochina and Thailand; activities under the Sepik freshwater conservation plan in the South Pacific; wetland conservation work in three territories in Australia; a multi-million dollar freshwater programme in Pakistan, involving WWF in protecting wetlands in the Indus delta; and more work in China following the government's approval of the National Wetland Conservation Action Plan. All of these are expected to translate into appreciable gains in 2002.

Europe and the Middle East

Arguably WWF's biggest success in Europe in 2001 was the Heads of State summit in the Romanian capital of Bucharest in May when leaders from 14 countries of the Danube-Carpathians region gathered to confirm and strengthen their commitment to sustainable development. The highly successful Summit marked a milestone for WWF, opening many doors to ensure that economic development in the region does not take place to the detriment of the region's natural wealth. Outcomes included: a commitment to a process of formalizing ecoregion

conservation in the Carpathian mountains; agreement among the five countries of the Tisza River basin to work together to prevent further toxic spillages into the river basin (badly damaged by the major cyanide spill in 2000); and the specific actions taken by the Romanian, Bulgarian, Moldovan, and Ukrainian governments to fulfil commitments made under the 'Lower Danube Green Corridor' agreement signed in June 2000.

As a consequence of the Tisza cyanide incident, WWF has started a number of restoration projects, as well as using the catastrophe to raise awareness and promote the importance of maintaining vibrant natural river systems. Hopes are high that, with the numerous side-arms, oxbow lakes and inundation zones along the length of the Tisza, the river and its wildlife will recover. Also in Hungary, WWF has been running a campaign entitled 'Hungary enriches the EU'. The campaign promotes the fact that at least 500 species and sub-species of plants that occur in Hungary are either extinct or are not found in EU member countries. In view of Hungary's application to join the EU, the initiative has been enthusiastically supported by the Hungarian Foreign Ministry.

In Poland, another of the 'first wave' EU accession countries, WWF is vigorously pursuing its vision for an alternative development for the Vistula and Odra Rivers. The rivers are currently threatened by plans to build hydropower stations, and canalization for shipping lanes. WWF maintains that additional hydropower stations along the Vistula are uneconomic and a waste of much-needed investment capital in Poland. Channelling and dredging of the Odra River for shipping will increase the risk of major floods. WWF research in the areas worst hit by the flooding showed that the Polish government had done little to modernize flood protection strategies since the major floods of 1997 (serious flooding occurred again in 2001). Dykes viewed as being largely responsible for the 1997 floods were rebuilt in the same areas, rather than allowing more space for floodwater. WWF is urging the Polish government to adopt EU standards for management of its rivers.

Existing European Union subsidies for economic development and intensive agriculture have potentially severe and negative effects for nature in those countries seeking to accede to the EU. With this in mind, WWF, over the next year, will focus even more strongly on the EU's Common Agricultural Policy (CAP). Work on reforming the CAP aims at a reduction in environmentally damaging subsidies, particularly those affecting freshwater areas. Instead, WWF would like to see funds channelled into expanded agri-environment programmes,

supporting Less Favoured Areas and rural development, leading to better implementation of the EU's nature conservation network, Natura 2000.

In a new initiative, WWF launched a Europe-wide 'Water & Wetland Index' which assesses the quality and management of freshwater ecosystems and resources in 17 countries, including EU accession countries.

Assessments of government performance against a common set of indicators will be used as a basis for developing national objectives and activities for freshwater conservation.

In the Mediterranean, WWF worked closely with the MedWet Initiative to secure the designation, on World Wetlands Day, 2 February, of ten wetlands covering nearly 2 million ha. Following the encroachment of sand dunes into one of these wetlands, the Ouled Saïd oasis in Algeria, WWF, together with the Ramsar Convention Bureau and the UN Convention to Combat Desertification, is undertaking a restoration project to rehabilitate the oasis.

Horses left to roam wild cause impacts on both regenerating plants and the edges of the fragile pools of wetlands in the Chihuahua Desert, Mexico.

WWF-Canon/Edward Parker



WWF's first ever conservation success was to help in the establishment of the Doñana National Park in Spain. Today, WWF is helping to shape the future of the Doñana area by seeking to ensure that major hydrological and wetland restoration projects are based on a catchment approach. As part of its five-year Action Plan for Doñana, WWF will evaluate all relevant projects in the Huelva-Seville-Cádiz triangle, support conservation strategies, and develop new projects in collaboration with local and international partners. This will include the development of alternative agricultural systems that use less water and fewer pesticides.

WWF has identified three groups of freshwater species and habitats — threatened amphibians, migratory salmon and sturgeon, and riverine forests — the status of which serve to highlight the problems facing Europe's freshwater resources. By linking its work in freshwater areas, forests, and oceans and coasts, WWF will collaborate with partner organizations to counteract the damaging impacts of agricultural change on wetlands and to reconcile the restoration of rivers with the increasing need for navigation and flood defence.

Latin America and the Caribbean

The Latin America and Caribbean region, particularly South America, contains large river systems that feed huge floodplains and wetlands; six of the ten most biologically diverse rivers in the world occur here.

Learning for conservation

The job of a conservationist is increasingly complex. In addition to strong technical skills, we need a number of other key skills to be better equipped to deliver on our conservation priorities. WWF has established a 'Learning Initiative' aimed at building the skills and competencies we need to achieve our conservation goals. Part of this learning is carried out through the WWF College for Conservation Leadership, an 18-month learning programme for senior field staff that combines learning via the Internet with traditional face-to-face workshops. This programme builds expertise in four theme areas: Leadership & Management, Strategy & Planning, Communications & Networking, and Campaigning & Advocacy.

Freshwater run-off from these systems represents about 30 per cent of the world's total. Outstanding examples are the Amazon, the Orinoco and the Paraguay-Paraná rivers. In more arid areas, such as the Chihuahuan Desert in Mexico, smaller river and lake systems harbour some of the world's highest numbers of endemic freshwater species.

These systems are totally dependent on the maintenance of the hydrological flow of water. For example, in South America, the annual pulse of flooding generates the habitats and species richness found in most

rivers and wetlands. Hydrological changes resulting from deforestation, flow regulation, or other man-made changes may affect the intensity and periodicity of flooding, thus destroying habitats.

In its work to conserve the region's freshwater riches, WWF has achieved several advances over the past year, working on its own or in partnership.

In Brazil, UNESCO ratified the 25 million-hectare Pantanal Biosphere Reserve (nearly 14 million ha of which are freshwater wetlands), protecting a major part of the world's largest flooded grassland. Colombia designated La Cocha Lake and surrounding wetlands as a Ramsar site, protecting high Andean paramo wetlands which are some of the most unique and threatened wetland areas in the world. In Mexico, the Huichol Indians and the governor of San Luis Potosi expanded the Huiricuta State Reserve from 183,000 to 346,000ha to encompass the Sierra de Catorce mountain range — a watershed

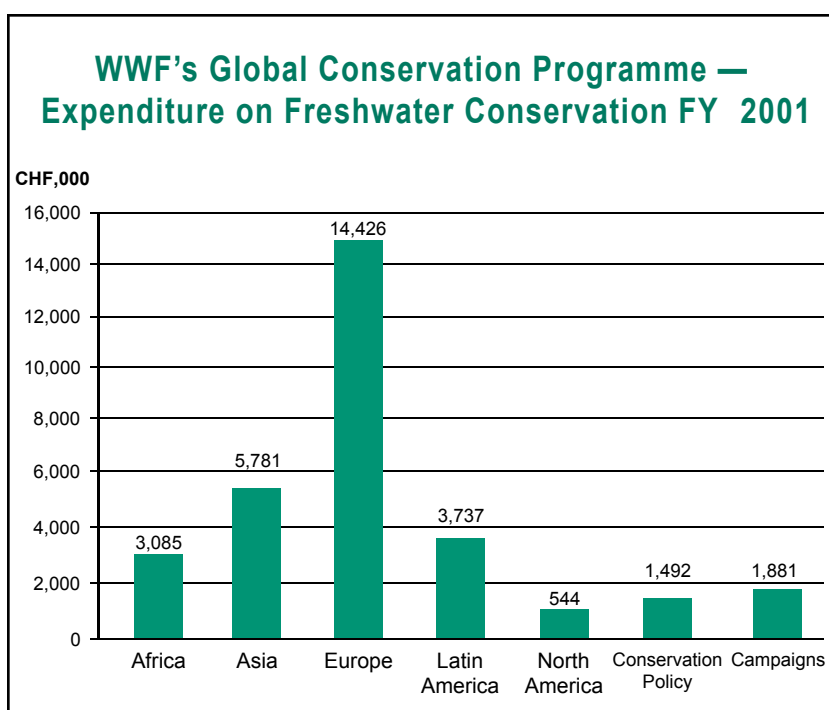
for desert streams and wetlands important for both plant and animal life and the local indigenous community.

Further north in the floodplain of another of South America's large river systems, FUDENA, an associate organization of WWF in Venezuela, is working to protect another huge flooded grassland. Known locally as the Llanos, this area is home to numerous aquatic and terrestrial species that depend on annual inundations of freshwater for their survival. Since most of the grassland is privately owned, FUDENA is working with local landowners and governments to establish a network of private nature reserves.

Within the Amazon River and Flooded Forest ecoregion, WWF has identified several priority sub-regions. One of these is the 'Abanico de Pastaza' — a geological depression located on the upper Pastaza River in the extreme north-west part of the ecoregion, in Peru. Many rare and threatened

aquatic species, including the river otter, pink dolphin, and Amazonian manatee thrive in this area, and numerous species of fish that make up an important part of the diet of local communities are also present in large numbers. However, in recent years the human population has increased considerably, bringing threats to nature in the form of oil exploitation, overfishing, and illegal logging. Growing populations are demanding larger harvests of timber, game and fish for metropolitan areas. WWF will provide data and technical and financial assistance to INRENA — the Peruvian government agency in charge of protected areas — to establish the Abanico del Pastaza protected area. INRENA has embraced this initiative because it complements its plans to establish a protected area that benefits from land-use planning and sustainable natural resource use.

The Cienaga de Zapata in Cuba, at 450,000ha, is the largest wetland in the Caribbean. Home to several threatened endemic birds and a small population of manatees, the wetland was Cuba's first Ramsar designation in April 2001. The Cienaga de Zapata is part of a joint effort by WWF and the Canadian International Development Agency (CIDA) to conserve and sustainably manage some of the richest wetlands in the Caribbean.



oceans and coasts

Unustainable fishing, insensitive coastal development, pollution, and climate change are threatening the health of seas around the globe, putting at risk people's livelihoods, local economies, and future food supplies.

Only a tiny fraction — less than 1 per cent — of the Earth's seas are fully protected from exploitation. Moreover, the majority of these marine protected areas are not yet adequately managed.

To address the threats facing the marine environment, WWF's Endangered Seas Programme is focusing on one of the common causes — large- and small-scale industry. Whilst industries are not all necessarily bad, they may have different priorities and not always take into account their full impact on the environment. WWF aims to move conservation to the forefront of their agenda.

WWF will promote wise-use policies and influence decisions affecting marine resources by creating new market incentives and penalties, influencing legislation and leadership, and applying pressure where appropriate. WWF will encourage industries, particularly those concerned with fishing, petroleum, tourism, shipping, aquaculture, the investment sector, and polluting land-based activities, to adopt practices which are both profitable for business and beneficial to the marine environment.

By creating a 'ripple effect' that will engage new partners and provide greater momentum in the battle to conserve and restore our seas, WWF can turn the tide on the escalating degradation.

Simon Cripps
Director, Endangered Seas Programme



Mangrove tree — above and below the waterline. WWF-Canon/Jürgen Freund

Global highlights

- In the Tortugas, Florida, WWF teamed up with recreational and commercial fishermen, scientists and business people to establish the largest no-fishing zone to date in US waters.
- Alaska salmon and New Zealand hoki became the latest fisheries to receive Marine Stewardship Council certification.
- The new law for the Banc d'Arguin, Mauritania, accepted by WWF as a Gift to the Earth, clarifies its legal status as a restricted fishing zone, and grants fishing rights to the indigenous Imraguen population.
- The government of Vietnam approved WWF's proposal for the establishment of a national marine and coastal protected area system covering 495,000 hectares.
- Creation of the tri-national Ligurian Sea Sanctuary in the Mediterranean by France, Italy and Monaco gives greater protection to the region's whales and dolphins.
- A WWF report revealed that wild Atlantic salmon have disappeared from more than 300 rivers in Europe and North America, and that catches in the North Atlantic have fallen by more than 80 per cent since 1970.

WWF's vision for oceans and coasts

WWF's vision for the future of the world's oceans and coasts is to see that governments, communities, environmentalists, industries and other interest groups around the world work closely together to keep and restore the treasures of the sea. People use oceans and coasts wisely for the benefit of current and future generations. All marine life is respected and has the right and the space to survive.

Targets

To achieve its vision for oceans and coasts, WWF's Endangered Seas Programme has set two global targets:

- By 2020, the establishment and implementation of a network of effectively managed, ecologically representative marine protected areas covering at least 10 per cent of the world's seas
- Maintain the status of all fish stocks that are currently exploited sustainably and, by 2020, halve the number of fish stocks that are overexploited or depleted, as currently categorized by the Food and Agriculture Organisation (FAO).

To address these targets,

WWF will work to maintain the biodiversity and ecological processes of marine and coastal ecosystems; ensure that any use of marine resources is both sustainable and equitable; and restore marine and coastal ecosystems where their functioning has been impaired. WWF will use its global reach, credibility and capacity to engage the public, decision-makers, and partners in the two areas where WWF can and has already made a real difference: marine protected areas (MPAs) and sustainable fisheries.

WWF will seek to establish networks of MPAs that are representative of a range of biodiversity and which are well managed. This will require greater protection for major, threatened habitat types such as coral reefs, sea-mounts, saltmarshes, coastal brackish and freshwater wetlands, and mangroves to ensure that the networks of MPAs are truly representative.

To tackle the overexploitation of the world's remaining fish stocks, WWF will seek new market incentives (such as the certification of salmon, shrimp and tuna fisheries); the elimination of the ten worst EU subsidies contributing to overfishing; an end to damaging fishing practices and a ban on by-catches; access agreements that govern the operation of distant-water fishing fleets; and measures to reduce illegal, unregulated and unreported fishing.

By working internationally, WWF's Endangered Seas Programme will address issues that are also of importance to many ecoregion conservation programmes, but which are

outside their reach (e.g. lobbying the EU to reduce the impact of distant-water fishing fleets on non-EU countries).

Marine conservation highlights

Overview

To combat the global crisis that is engulfing marine and coastal areas, WWF is creating a 'ripple effect': engaging partners, developing model initiatives and building coalitions to conserve the oceans and protect precious marine resources. During the past year, WWF has expanded its work on marine protected areas to include the high seas, battled against government payments that exacerbate overfishing, and promoted new solutions to restore the seas' natural balance.

For example, in May 2001, WWF and IUCN teamed up with concerned governments to issue a new report and call for action to protect the natural riches of the deep seas from overexploitation. The report, *The Status of Natural Resources on the High Seas*, confirms that these areas are increasingly threatened by unregulated fishing, oil exploration, dumping of carbon dioxide, biotechnology, and the exploitation of gas hydrates and hydrothermal vent minerals or organisms. WWF will continue to press for international agreements to regulate the protection and use of these vital marine areas.

In Mauretania's Banc d'Arguin National Park, WWF joined its partner organizations FIBA ('Fondation Internationale du Banc d'Arguin'), IUCN and

several donor agencies to celebrate new legislation that protects one of the most threatened fisheries in the world. Located in the biologically and nutrient rich waters of the Sahellian Upwelling ecoregion, the Banc d'Arguin is a popular fishing ground for artisanal fishermen and distant-water fleets from various countries. The new legislation, designed to help combat illegal fishing in the park and include local communities in its future management, serves as an example to neighbouring countries (see also below under 'Africa and Madagascar'). As a result, Senegal and Guinea Bissau have also agreed to build a network of marine protected areas throughout this important marine ecoregion.

In the Tortugas, 110km west of the Florida Keys, WWF has teamed up with recreational and commercial fishermen, scientists and business people to design and establish the largest no-fishing zone to date in US waters. Working with partners is also the theme of WWF's Great Barrier Reef Campaign in Australia. The campaign seeks to protect the world's largest living entity from destructive fishing practices, climate change, and pollution pressures.

Other work to reduce natural threats and the human footprint on these vital marine ecosystems is underway in the Lomaiviti and Kadavu waters of Fiji. There, donors, businesses, non-governmental organizations and the University of the South Pacific sponsored a scientific expedition to determine the level of coral bleaching caused by warming temperatures. These coral reefs, which serve as

Conserving ecoregions

Sahelian Upwelling

The Sahelian Upwelling ecoregion includes the marine and coastal waters of four countries: Guinea Bissau, Mauretania, Senegal, and The Gambia. Some 13 million people live within the boundaries of the ecoregion, mostly in, and dependent on, coastal areas.

The Sahelian upwelling is renowned for its high productivity — especially its extensive deep sea fisheries. Among a number of threatened species are five types of marine turtle and the critically endangered monk seal. Vast concentrations of overwintering and breeding waterbirds occur, with areas such as the Banc d'Arguin in Mauretania among the most important wintering places for birds migrating between southern Africa and northern Europe.

Human pressure on the marine and coastal environment is increasing, especially artisanal fishing which in recent times has seen motorization of 'pirogues' (fishing boats) and the introduction of damaging new techniques (dynamite fishing) and fishing gear (fine-meshed beach seines, turning seines). However, the greater threat comes from commercial fishing — both by national fleets and distant-water fleets. Heavily subsidized European fleets are guaranteed access to West African waters through fishing agreements negotiated with the EU with little regard for sustainability concerns. Destruction of the fisheries will inevitably impact on the livelihoods of local people who rely on these resources in some of the world's least developed countries.

To counter the escalating threats, WWF has promoted the creation and improved management of marine protected areas in Senegal, The Gambia and Guinea Bissau; put the spotlight on fisheries subsidies and agreements through a series of regional workshops on sustainable and equitable fisheries agreements; collaborated with the regional fisheries association, the 'Commission Sous Régionale des Pêches', to promote sustainable fisheries management at all levels; and initiated a reconnaissance of the ecoregion.

Two significant advances have come in Mauretania, with new legislation for the Banc d'Arguin National Park (see under 'Africa and Madagascar'), and in Guinea-Bissau, with the creation of the João Viera/Poilão National Park — a 500km² MPA in the southern part of the Bijagos Archipelago, including Poilão Island, the largest green turtle nesting site on the Atlantic coast of Africa. Meanwhile in Senegal, four potential MPAs have been identified and are currently being surveyed.

Achieving increased commitments to marine conservation simultaneously in three of the four countries of the ecoregion provides a foundation for a continued regional approach. Each country has recognized the importance of a concerted regional effort to conserve their precious natural resources, and the livelihoods which depend on them.

essential physical barriers and income to Pacific island states, are also threatened by overfishing and destructive fishing practices.

In the North East Atlantic, WWF is advising inter-governmental organizations and lobbying for the protection of key offshore habitats. In Latin America, WWF is working closely with local and regional authorities to designate a network of protected areas on the Mesoamerican Caribbean Reef. On Mafia Island in Tanzania, WWF staff are working with fishermen in local communities to better manage their resources and provide alternative livelihoods to reduce the pressure on reef fish stocks. Off the West African coast, WWF is talking to the fisheries industry and the emerging oil industry to try and guide developments so that they are sensitive to community and environmental needs.

WWF also continued to promote new market incentives as a tool for conservation. As one of the founding members of the Marine Stewardship Council (MSC), WWF witnessed more fisheries earn the MSC's eco-friendly label, thus providing consumers with the opportunity to purchase seafood from well-managed fisheries. Alaska salmon and New Zealand hoki were among a few of the big commercial fisheries certified. Further small- and large-scale fisheries are expected to complete the certification process soon.

Africa and Madagascar

In 2001, WWF launched a new marine conservation initiative

The effects of trade liberalization on tourism

As part of its work to assess the impacts of international trade on responsible tourism, WWF's Trade & Investment Unit undertook a study entitled *Preliminary Assessment of the Environmental and Social Effects of Liberalization in Tourism Services*. This showed that trade liberalization is one of the major factors driving tourism development.

Many of the key impacts are demonstrated by tourism development in the Belek area of Turkey following liberalization of the Turkish tourism sector. Belek, which is an important area for marine turtles, has been the focus of international investment in luxury beach hotel developments aimed at foreign tourists. Amongst the issues identified have been:

- damage to fragile dune ecosystems
- lack of re-investment of profits in waste-water treatment and other environmental services
- anti-competitive practices
- lack of consultation and involvement of local people
- barring of local producers from marketing their goods in hotels
- distortion of the local employment market.

The study, which has been presented to the World Trade Organization and the World Tourism Organization, recommends focusing on:

- the tourism industry's international responsibilities and commitments to sustainable practices
- the need for greater transparency
- the need for greater social and environmental responsibility
- promotion of 'good practice' (such as environmental impact assessments and use of environment-friendly technologies)
- building local capacity, including staff training.

The report also advocates raising the awareness of local communities and stakeholder groups with the aim of activating local grass-roots support for responsible tourism. This may include encouraging small-scale tourism-related activities and community-based tourism. Over the next year, WWF's Trade & Investment Unit will be working with partners inside and outside WWF to take forward these findings.



Malindi Marine Park and Reserve, Kenya — a prime ecotourism site.
WWF-Canon/Mauri Rautkari

for Africa. Its focus will largely be on three outstanding African ecoregions: Sahelian Upwelling, Western Indian Ocean Islands, and Eastern Africa Marine. Each of these ‘jewels’ take in a number of protected areas across different countries. For example, Mafia Island Marine Park and the Menai Bay Conservation Area in Tanzania, Kiunga National Marine Reserve in Kenya, and the Bazaruto Archipelago in Mozambique all come within the Eastern Africa Marine ecoregion. WWF has continued its support for these and other marine parks which form part of WWF’s long-term vision for the continent’s ecoregions.

WWF’s support to the 12,000km² Banc d’Arguin National Park in Mauretania resulted in better control of illegal fishing within the park and better protection for marine turtles. Efforts by the newly created Surveillance and Conservation Department led to a 70 per cent increase in reported cases of infraction. The good collaboration between the park’s officials and local communities resulted in a significant reduction in marine turtle captures. The new law for the Banc d’Arguin, passed by the Mauretanian parliament in December 1999, and celebrated as a Gift to the Earth in March 2001, underlines the importance of the park and clarifies its legal status as a restricted fishing zone, allowing only fishing by the indigenous Imraguen population.

In West Africa, WWF initiated a new marine project around the ‘Parc National des Iles Ehotilés’. The park is part of the Aby lagoon system situated

in the coastal zone of south-eastern Côte d’Ivoire. The project will work with the surrounding communities to address the current pressures on the park arising from overexploitation of natural resources, intensive fishing, agriculture, and tourism.

Conservation action continued in the Eastern Africa Marine ecoregion, with the completion of the initial plans for an ecoregion-wide programme. Activities included an in-depth reconnaissance study, an analysis of the

policies in 11 villages within the park, and a study on the effects of fishing pressure on the local octopus population (currently the single most important fishery in Mafia). The project also won government approval for revenue from fisheries and tourism to be collected in the park, and initiated a permit system for both resident and visiting fishermen which will also keep a close eye on fishing intensity.

The Menai Bay Conservation Area project in Zanzibar seeks to



Yellow mullet is salted and dried for export locally and beyond — Banc d’Arguin, Mauretania.

WWF-Canon/John Newby

ecoregion’s plant and animal life, and extensive consultations with stakeholders and partners. Within the Mafia Island Marine Park project, WWF collaborated with the government of Tanzania and local communities to develop and manage the country’s first marine national park. The aim is to enable local people to use both land-based and marine resources without exhausting them. Activities during the year included a major survey of resource-use patterns and attitudes towards marine park

enhance the management of the bay’s biological resources. Among the activities during the year were monthly monitoring of fish catches by local communities, development of a turtle recovery action plan for Zanzibar, and an assessment of tourist visits to the Menai Bay area. The exercise found that about 12,000 tourists visit Menai Bay annually, the revenue from which will help to sustain local conservation work. A tree nursery for the Hiari ya Moyo Women’s cooperative group of Bwaleo village was also established.

In Kenya, WWF supported the Kenya Wildlife Service in finalizing the first draft of the Kiunga Reserve management plan. A lobster survey formed part of the long-term monitoring of the species and a study on the status and utilization of mangroves was completed with UNESCO support. The project also recorded the first ever release of a dugong after a female became entangled in a fisherman's net — this is a big step forward since such catches would normally have been taken for consumption. Survey work in the park revealed the first record of the Red Sea angelfish for Kenya.

Asia and the Pacific

Poverty alleviation and the impacts of unsustainable livelihoods on marine resources were the focus of much of the marine work by WWF in the Asia-Pacific region in 2001. Projects in Cambodia, the Philippines, Vietnam, and in the Yangtze basin in China all dealt with finding solutions to enable people to use coastal and marine resources in a sustainable manner. Greater enforcement of regulations to control adverse impacts, such as illegal or harmful methods of fishing, also helped, notably in the Turtle Islands Wildlife Sanctuary in the Philippines.

Across the region, WWF established new partnerships — with research institutes, national government agencies, local government bodies, local communities, other NGOs, and business and industry. A feature of many partnerships was capacity building, strengthening marine law enforcement,

Conserving ecoregions

The Great Barrier Reef

Australia's Great Barrier Reef is an exceptional area of biodiversity and an ecoregion of outstanding beauty. It is the largest of the world's 552 World Heritage Sites, stretching for over 2,000km between tropical and sub-tropical zones.

The Marine Park contains more than 2,900 reefs, globally significant populations of endangered species (including six of the world's seven species of marine turtle and one of the world's most important dugong populations), as well as regionally important seagrass beds and mangrove forests. It is home to over 1,500 species of fish, 350 types of coral and more than 5,000 mollusc varieties.

The Barrier Reef is also a profitable resource sustaining tourism (worth AU\$1 billion annually) and fishing industries (AU\$250 million), as well as providing recreational pleasure for thousands of divers, anglers and naturalists.

Tragically, this natural wonder is rapidly collapsing under ever increasing pressure on its resources. Currently only 4.5 per cent of the Park is fully protected under designated 'green zones'. The main threats to its survival are unsustainable fishing — particularly bottom trawling by the prawn industry; pollution from agricultural, industrial and urban sources; coral bleaching caused by rising sea temperatures; and coastal development — impacts from land clearing, wetland destruction and urban and tourism developments.

Launched in September 2000, WWF's Great Barrier Reef Campaign combines awareness-raising initiatives with advocacy work. Amongst progress to date, an interactive campaign website has been created (www.gbr.wwf.org.au); reports have been produced on prawn and scallop trawling, line fisheries, aquaculture, land clearing, shipping safety, highly protected areas, and marine pollution, as well as a status report on the Barrier Reef to UNESCO's World Heritage Committee; dates have been set for the mandatory use of turtle excluder and by-catch reduction devices, plus a 15 per cent reduction in trawling; the Marine Park has been extended by some 6,000km²; a government review of shipping safety in Reef waters is underway; military target practice in one of two areas of the Marine Park are to be phased out; and oil seismic surveys adjacent to the World Heritage site have been stopped.



Dugong.

WWF-Canon/Jürgen Freund

environmental monitoring, park governance, and turtle conservation.

Although still in its infancy, certification of marine fisheries continues to grow. WWF-Philippines continued its steps toward certification of the blue crab industry, carrying out stock assessment, a socio-economic and market analysis, and the development of a blue crab management plan. If successful in its bid for the MSC certificate, the blue crab industry will become the first artisanal, rather than commercial, fishery to receive the label. In New Zealand, where the hoki fishery was certified by the MSC during 2001, WWF has applied to the government for funding to prepare a guide to fisheries certification, focusing on the Marine Stewardship Council.

Market incentives were also to the fore in the Philippines' Tubbataha Reefs National Marine Park (part of the Sulu-Sulawesi Marine ecoregion), where a park 'conservation fee' was estimated to have generated US\$40,000 in just three months. The funds raised will help contribute to the independence and long-term viability of the 33,200ha national park. Already recognized by UNESCO as a World Heritage site, the park has now also been declared as a Ramsar site. Greater efforts at law enforcement have helped to reduce the encroachment of commercial fisheries in Tubbataha and at two other marine sites, Mabini and Tingloy.

Other marine conservation successes came in Vietnam where the government approved WWF's proposal for the



Award-winning activity — volunteers recording derelict fishing nets and debris at Cape Arnhem, Northern Territory, Australia.

WWF

establishment of a national marine and coastal protected area system covering 495,000ha. Also in Vietnam, the authorities in the province of Con Dao accepted WWF's proposals for environmental management and tourism plans, as well as the country's first ever marine zoning plan for a coastal area. In the Solomon Islands, a national moratorium was declared on the poisoning and exporting of live fish. And in Fiji, WWF's collaboration with local communities in seven villages on Ono Island led to the creation of a pilot marine protected area. An immediate benefit was noticed in better management and regulation of fishing activities.

In New Zealand the industry sector helped to develop plans to save the endangered North Island Hector's dolphin, following WWF's efforts in promoting the plight of the species.

In Australia, WWF was appointed to the country's National Oceans Advisory Group. And WWF-Australia's Tropical Wetlands of Oceania Programme won the 2001 Banksia Environmental Award for environmental excellence. The award, given to WWF and

its partners, the Dhimurru Land Management Aboriginal Corporation, Australia Conservation Volunteers, and the Northern Territories Department of Primary Industry and Fisheries, was made for the group's efforts to combat marine debris washed ashore on Australia's northern beaches.

Looking ahead, WWF's major focus in 2002 will be on promoting the MSC standard for commercial and artisanal fisheries, and conservation of coral reef systems through the 'CoralWeb' initiative.

Europe and the Middle East

One of the greatest challenges to WWF in its marine work is the elimination of harmful EU fishing subsidies which are doing untold damage to global fish stocks. In November 2000, in collaboration with the European Policy Centre, WWF opened the discussion on European fishing subsidies amongst a wider public of decision-makers, scientists, lawyers and journalists in a two-day symposium entitled 'Fishing in the Dark'. Aimed at promoting transparency and accountability in fishing

subsidies, WWF hopes the discussion will influence further debates in national capitals, as well as in relevant fora such as the Organisation for Economic Cooperation and Development (OECD), the World Trade Organization (WTO), and FAO.

The need for greater transparency was already evident when, in July 2000, WWF tried to obtain specific information about fishing subsidies from ten European countries. The responses were, with rare exceptions, far from satisfactory. This showed that public access to information about fishing subsidies is not sufficient to guarantee either accountability or good policy. A recent report commissioned by WWF, *Reforming EU Fisheries Subsidies*, authored by the Institute for European Environmental Policy, highlights further the need for accessible information on EU funding to the fishing sector.

WWF is also pressing for reform of the European Common Fisheries Policy and a move towards more sustainable fishery practices. By mounting a



Loggerhead turtle swimming in Langan Bay, Zákynthos, Greece.
WWF-Canon/Michel Gunther

campaign on fisheries subsidies, WWF is highlighting the desperate situation facing fish stocks in European waters and in other parts of the world where

European subsidies enable their fishing fleets to drop their nets (see box on page 31: Sahelian Upwelling). Already, increasing pressure from WWF and other NGOs has encouraged European fishing ministers to announce reductions in fishing quotas for several commercial species. The decision was taken after warnings that valuable fish stocks, such as Irish Sea cod, were in imminent danger of collapse.

WWF is calling for strict protection of the wild Atlantic salmon which has disappeared completely from at least 309 river systems in Europe and North America. Salmon catches in the entire North Atlantic fell by more than 80 per cent between 1970 and the end of the 1990s. Commercial ocean harvesting of the species and the impacts of industrially farmed salmon on wild salmon populations are among the issues of concern to WWF. Using the scientific data in a report released in May 2001 — *The Status of Wild Atlantic Salmon: A River by River Assessment* — WWF is targeting decision-makers in European capitals, as well as urging angling associations and others to apply pressure for action. The report reveals that the species has disappeared from rivers in Germany, Switzerland, the Netherlands, Belgium, the Czech Republic, and Slovakia, and is on the brink of extinction in Estonia, Portugal, Poland, the United States, and parts of Canada.

The network of marine protected areas in Europe has grown with the establishment in the Mediterranean of the tri-national Ligurian Sea Sanctuary. The treaty, ratified by France

and Monaco, with Italy still to sign, will strengthen efforts to protect the area's whale and dolphin populations from threats from fishing, pleasure vessels and commercial sea-going traffic. Work will start in summer 2002 to map the movements and areas in which the whales and dolphins spend most of their time.

WWF is looking to establish more marine protected areas and no-fishing zones in the Mediterranean, a complex challenge in a region of many countries and cultures. Negotiations are already in progress in Croatia, Libya, Morocco, Spain, Tunisia, and Turkey. The recent creation of the 100km² Zákynthos National Park in Greece was a major achievement for WWF's European marine programme.

Tourism is also a prime focus of WWF work in the Mediterranean region, which attracts many millions of visitors each year. Mass tourism has ever increasing impacts on nature, requiring appropriate and sensitive responses from the tourism industry. To raise awareness on the issue, WWF attended the tourism industry's main international event in Berlin in March 2001. The future will see WWF work in collaboration with some of the main stakeholders in the industry to develop a scheme that promotes the natural values of the Mediterranean Sea, and draws commitments from the tourism industry to help protect it.

Latin America and the Caribbean

The oceans surrounding Latin America and the Caribbean span

the spectrum from polar to tropical. Thirteen per cent of the world's corals reefs occur in the Caribbean, while off the coast of Peru an upwelling of nutrient-rich waters generates the most productive fisheries in the world. The Humbolt current pushes these waters north to the Galapagos where they meet up with warm tropical currents from the western Pacific, generating an amazing assemblage of marine habitats and species on the equator that includes penguins as well as tropical fish.

Fisheries throughout the region have traditionally provided employment and income for coastal residents. In recent decades however, a steady increase in the size of fishing fleets has led to overfishing, outstripping the productivity of many stocks and leading to their depletion. This in turn has driven many fishermen out of work. In addition, some fisheries are catching many other, non-target species (by-catch), the ecological repercussions of which are spreading throughout the marine food web and threatening other fisheries and endangered species such as turtles.

Well-managed marine protected areas (MPAs), including species-rich estuaries, mangroves, seagrass beds, and coral reefs, help to increase the productivity of fisheries. MPAs are also important economically as they contribute to the creation of jobs and services, particularly in the tourism and recreation sectors. Well over 135 MPAs exist in the Latin America and Caribbean region. However, this number still represents only a

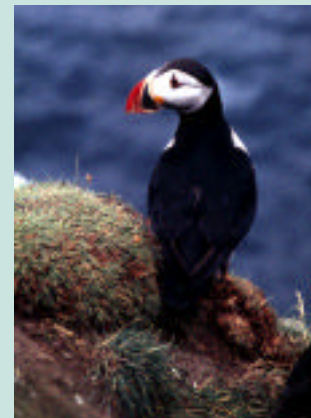
Conserving ecoregions

North-East Atlantic Shelf

Eight different European countries border the North-East Atlantic Shelf ecoregion: Belgium, Denmark, France, Germany, Ireland, The Netherlands, Norway, and the United Kingdom. The marine resources along the coasts of these countries have long sustained human livelihoods, but it is only in recent decades that the exploitation of fisheries, oil and gas reserves, and tourism have grown to unsustainable levels.

The ecoregion is rich in the wide array of habitats and plant and animal species it contains. Offshore there are cold water coral reefs, kelp forests, and deep-water fish, as well as seals, whales, dolphins, porpoises, sharks and turtles, and ocean-going seabirds. Intertidal mudflats and saltmarshes, such as those of Europe's largest coastal wetland, the Wadden Sea, provide millions of migratory birds with essential resting and feeding places. Shallow offshore features such as the Dogger Bank provide crucial reproduction and migration places for large numbers of marine invertebrate and fish.

Threats to the ecoregion are numerous and come from both land and sea. Toxic industrial chemicals, pesticides and nutrients enter the sea from land-based sources via rivers and the atmosphere. This pollution is exacerbated by discharges of oil and chemicals from offshore platforms and merchant shipping. Fish stocks and marine ecosystems have come under heavy pressure from overfishing, by-catch, discards, and destruction of reefs, sandbanks and coral reefs by bottom trawling. Then there are the risks from shipping and disturbance to sensitive areas by mass tourism, as well as growing offshore industrial installations.



Puffin.

Canon-WWF/Michèle Dépraz

To safeguard the ecoregion, WWF is focusing on the creation of a network of marine protected areas, sustainable fishing policies, and the cessation of toxic pollution by hazardous chemicals.

Conservation successes to date include protection for the shallowest cold water coral reef in Norwegian waters, up to 200 metres below the ocean's surface, and Marine Stewardship Council certification of the Thames herring fishery in the UK, the first to carry the MSC logo. Fifteen NE Atlantic governments extended the list of hazardous chemicals requiring priority action from 15 to 27. Currently, WWF is campaigning for the use of biocide-free antifouling paints by the shipping industry, and pressing the offshore oil industry on environmental standards and habitat conservation in Ireland, Norway, and the UK.

small fraction of the 20 million km of marine area under the national jurisdiction of the region's governments, and many of them are poorly managed.

Several advances were made during the year. WWF was the first international conservation organization to respond to the *Jessica* fuel spill in the Galapagos, establishing an emergency fund of US\$340,000 and spearheading with the Galapagos National Park Service the rescue and rehabilitation efforts of the islands. WWF continues to play a leading role in influencing fisheries management within the reserve.

One of WWF's priority ecoregions is the Mesoamerican Caribbean Reef which extends some 700km from the northern tip of the Yucatan peninsula in Mexico to the Bay Islands off the coast of Honduras. It contains the largest coral reef system in the Atlantic. WWF is working in the reef to shape economic development and strengthen local conservation efforts. This includes support to



Research being carried out into the impact of crab pots on the fragile sea grasses of the Gulf of California, Mexico.

WWF-Canon/Edward Parker

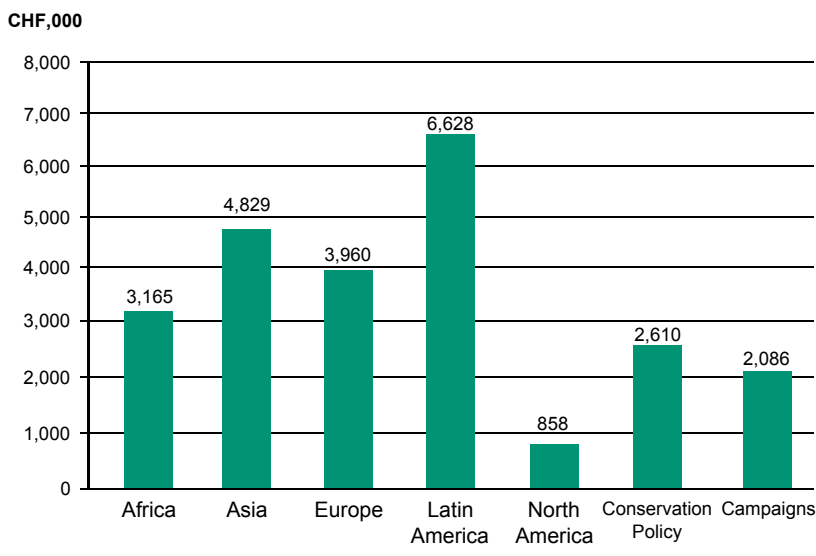
sustainable tourism and fisheries while helping to establish and effectively manage new and existing marine protected areas. To assure long-term support for conservation of the ecoregion WWF is collaborating with the four national conservation trust funds — in Belize, Guatemala, Honduras, and Mexico — to discuss the development of an ecoregional funding mechanism. Conservation of the reef depends upon WWF's diverse

and extensive network of regional and international partnerships.

Fundación Vida Silvestre Argentina (FVSA), WWF's Associate organization in Argentina, purchased the Monte León Ranch on the southern coast of the Patagonian Santa Cruz province. The property covers 60,000ha of Patagonian steppe and includes more than 30km of South Atlantic coast, with sea lions, cormorants, guanacos, and penguins. In the near future, FVSA will work with government officials to protect some of the adjacent marine areas.

The Gulf of California is one of the largest and most diverse semi-enclosed bodies of water in the world. WWF has selected this rich sea as one of its priority ecoregions. Within it, WWF's Gulf of California team has worked with scientists from Mexico and the Scripps Institute of Oceanography to develop a scientific method for selecting the most biologically important sites to make up a network of marine protected areas. These areas contain critical spawning aggregations of commercially important fish and shellfish species, as well as critical habitats for whales, turtles and birds. From this work the priorities for biodiversity conservation were defined in a planning workshop sponsored by WWF, Conservation International and a coalition of local academic and government partners in Mexico. The next steps are to win protection and introduce sensitive management of the areas for the benefit of threatened and endangered species, as well as the important local fishing industry.

WWF's Global Conservation Programme — Expenditure on Marine Conservation FY 2001



species

*I*t is estimated that only about one-tenth of the 15 million species thought to live on Earth has been described. For each beetle, mollusc, or fungus identified, there are at least ten yet to be discovered. Each of these myriad plants and animals plays a vital part in the intricate web of life on our planet.

In geological terms extinction is normal. What isn't are the current rates. And the loss of any species is especially tragic when due to human activities that could have been averted. Scientists estimate that about 7 per cent of the approximately 50,000 vertebrate species (mammals, birds, reptiles, amphibians, and fish) are threatened with extinction over the next 20 years, including a staggering 25 per cent of all mammals and 12 per cent of all birds.

In order to maximize its impact and inspire people to support nature conservation, WWF has chosen to focus its efforts on a small number of well-known, charismatic species. These include giant pandas, tigers, elephants, rhinos, great apes, marine turtles, and whales.

Over the next few years, WWF will work with its many partners to secure the long-term survival of these key species. Successful conservation of these animals and their habitats will also benefit the thousands of lesser known plants and animals with which they co-exist and are interdependent.

There are many factors threatening species, including habitat loss, overhunting, invasive alien species, pollution, climate change, and unintentional by-catch. WWF's Species Programme has chosen to place special emphasis on both habitat loss and wildlife trade.

Susan Lieberman
Director, Species Programme



Successful anti-poaching efforts are helping African elephants to increase their numbers. WWF-Canon/Martin Harvey

Global highlights

- Twelve poachers-turned-law enforcers are now employed in the anti-poaching units in Bukit Tigapuluh National Park in Sumatra, Indonesia, putting their knowledge to good use for the conservation of tigers.
- With the Thai Elephant Conservation Centre and Royal Forestry Department, WWF helped develop Thailand's first ever conservation action plan for the Asian elephant.
- The Russian government has set the commercial fishing quota for beluga sturgeon at zero in an urgent attempt to prevent the famous fish from becoming extinct.
- No serious upsurges in elephant poaching were reported in any of the key areas in which WWF operates across the range of the African elephant.
- A survey of the blind Indus river dolphin in Pakistan revealed that some 1,000 individuals live in the lower reaches of the river. Habitat fragmentation and drought are the main threats to its survival.
- The 1,000th golden lion tamarin was born in Brazil's Atlantic forest, the result of successful conservation action dating back to 1984.

WWF's vision for species

WWF's vision for its Species Programme is a world in which the intrinsic, aesthetic, economic and ecological values of species are recognized and respected worldwide and that, as a result, environmental degradation and unsustainable use no longer threaten the survival of wild plants and animals and their crucial habitats.

Targets

Continuing its 40-year work to conserve key plant and animal species representative of the Earth's biological diversity, WWF's Species Programme is structured around two inter-related targets: the first focused on species of global concern and their habitats, and the second on the cross-cutting issue of wildlife trade:

- By 2010, populations of key species of global concern are stabilized or increased and their critical habitats safeguarded.
- By 2010, at least ten species of global concern are no longer endangered by overexploitation.

The species chosen by WWF for species action plans are: giant panda; tiger; black and white rhinos of Africa; Javan, Sumatran and greater one-

horned rhinos of Asia; African elephant; Asian elephant; leatherback, loggerhead, green, hawksbill, Olive Ridley, Kemps Ridley, and flatback marine turtles; gorilla, chimpanzee, orang utan, and bonobos; and endangered cetaceans including most of the 'great' baleen whales and smaller cetaceans such as vaquita, harbour porpoise, and river dolphins. The action plans for these species will differ depending on the focus and size of the group. Whilst panda and black rhinos, for example, will be quite specific, direct and substantial, marine turtles and endangered cetaceans may well focus on issues that target a number of species in a more generic sense.

In implementing these action plans at field and global levels — both of which rely on strong public, political and institutional support — WWF and its partners will complement the work with critical interventions in market research, law enforcement assistance, advocacy, campaigning, and on-the-ground actions, as well as encouraging consumers to avoid the use of species or products subject to overexploitation. Global threats, in particular unsustainable wildlife trade, will be tackled through close collaboration with the TRAFFIC network.

To support conservation work in the Global 200 Ecoregions, the Species Programme will also help in implementing conservation strategies for threatened plants such as big-leafed mahogany, and threatened mammals such as snow leopard, large carnivores and herbivores, river dolphins, porpoises, and important fish species including the blue fin tuna and whale shark.

Species conservation highlights

Overview

The world's fauna and flora lie at the heart of WWF's mission to conserve biodiversity. For four decades, WWF has been conserving the global 'web of life', combating habitat loss, unsustainable use and species extinction, focusing particular attention on globally important flagship species. Despite many successes, such as bringing the polar bear and the Bengal tiger back from the brink of extinction, the challenge in keeping species safe from a growing number of threats is becoming increasingly difficult. IUCN's latest 'Red List' warns that at least 12 per cent of all plants and birds, and a massive 25 per cent of all mammals face extinction in the near future. The main risks to their survival are from loss of habitat and its fragmentation, illegal wildlife trade, overuse, loss of prey base, pollution, and climate change.

The animal for which WWF is best known is the giant panda, the symbol of the organization and for conservation globally. Published to coincide with WWF's 40th anniversary, the report *Giant Pandas in the Wild* states that the disappearance and fragmentation of the panda's rugged mountain forest home are the major dangers facing pandas in the wild. In Sichuan Province in China, where the greatest number of giant pandas struggle for survival, suitable habitat occupied by pandas shrank by 50 per cent between 1974 and 1989. A survey in 1999 in one county in Sichuan revealed that since

Turtles swimming against the tide

Marine turtles in the northern Caribbean have, over the centuries, been devastated by overexploitation, bringing some populations to the brink of extinction and severely threatening others. A report by TRAFFIC — the wildlife trade programme of WWF and IUCN — revealed that demand for turtle meat, eggs and other products remains strong in many parts of the region, despite efforts to restrict hunting. To stem the tide of destruction, greater cooperation between the countries of the Caribbean is urgently needed.

The report, *Swimming Against The Tide*, reviewed the exploitation, trade, and management of the six species of marine turtles that occur in 11 countries and territories of the northern Caribbean. Sea turtle meat and eggs are regularly consumed, and products made from turtle oil, cartilage, skin and shell continue to be sold at tourist centres, including international airports, in violation of domestic legislation.

The management and control of turtle exploitation varies greatly across the region. Some countries have allocated significant resources to manage and conserve marine turtles, while others have done little. Legislation is excellent in some countries but incomplete and outdated in others. Enforcement of controls and regulations is strict in some countries, but nearly non-existent elsewhere.

Lack of information is a severe problem. In addition to further research on the distribution of turtle populations and migration patterns, more intense efforts are needed to compile data on harvesting of turtles and eggs, as well as levels of poaching and illegal trade, incidental catch, and product seizures. Greater information exchange is also needed between countries. TRAFFIC proposes the establishment of a regional repository for such information, as well as a centralized database of seizures and prosecutions to assist authorities in assessing trends in law enforcement, trade routes, levels of illegal trade, values of products, and smuggling methods.

Countries in the Caribbean need to work closely together to reduce the threats to shared marine turtle populations. Regular dialogue and bilateral or multilateral agreements and management plans are essential. Much more needs to be done to build regional cooperation in areas such as information exchange, legislation, enforcement, training, capacity building, and public awareness. Only then can the strong demand for turtles and turtle products be curbed, and marine turtle populations in the northern Caribbean rebuilt and conserved.

Leatherback hatchling, Guyana, South America.

WWF-Canon/Roger Leguen



1987 there has been a 30 per cent decrease in panda habitat.

Today, there are around 1,000 giant pandas remaining in the wild. The results from the three-year National Giant Panda Survey started in 1999, in which WWF is helping the Chinese government, will set the trend for future conservation efforts. WWF believes that urgent action is required to identify and establish corridors to link isolated panda populations. In addition, the Chinese government needs to set up a permanent fund to combat chronic financial shortages in panda reserves.

The world's most endangered whale is the northern right whale, which occurs in the North Atlantic. WWF has forged partnerships with the International Maritime Organisation, the New England Aquarium and IUCN's Cetacean Specialist Group in efforts to save it. The cornerstone for securing the future of the whale is WWF's recently developed whale conservation programme and action plan. The most serious threats that need to be overcome are collisions with vessels and entanglement in fishing nets, both of which are common causes of injury and death.

WWF's campaign in the International Whaling Commission (IWC) to end uncontrolled commercial whaling is part of the broader effort to minimize human impacts on all cetaceans, whether from commercial exploitation, marine pollution, climate change, or a growing array of other human-induced threats. As completely international, migratory species,

whales are the only one of WWF's 'flagship species' to have their own international convention, so this is a crucial forum for WWF advocacy. However, the IWC is currently failing to establish control over whaling by Japan and Norway which is still taking place in spite of the global moratorium. The IWC is facing deadlock between the pro-whaling and non-whaling member states, and this is threatening its very existence. WWF has been vigorously lobbying key IWC members, both whalers and non-whalers, to agree acceptable solutions to the impasse, so as to do everything possible to prevent whaling once again becoming a threat to the most endangered whales. Such solutions need to include new safeguards — including highly precautionary catch limits and provisions on monitoring, surveillance, and control — that would bring the whalers back under full IWC control. WWF's past successes in the IWC, including the 1986 global moratorium and the 1994 Southern Ocean whale sanctuary, were all achieved by working with other large NGOs as partners. In the current complex situation this is more difficult, but is still being done wherever possible.

At both the Climate Summit in Bonn and the IWC meeting in London, WWF called on governments to take action to ensure a future for blue whales. The blue whale population in the Antarctic was drastically reduced by commercial whaling, from 250,000 a century ago to probably below 1,000 today. The population has shown little sign of recovery since blue whales were officially protected

Conserving ecoregions

The Cape Floral Kingdom

There are only six floral kingdoms in the world. Of these, the Cape Floral Kingdom, at the southern tip of Africa, is the only one found entirely within one country. Extending over 90,000km², it is home to more indigenous plant species than any other similar sized area on Earth, and at least 70 per cent of the 9,600 species occur nowhere else.

The characteristic vegetation type is 'Fynbos', the most famous species of which include a wealth of cut flowers and garden plants such as proteas, window-box geraniums and sweet-scented freesias. Plants used traditionally as herbal teas, perfumes and roofing thatch now contribute to job creation and the region's economy. This is boosted by the millions of visitors who visit the Western and Eastern Cape provinces each year.

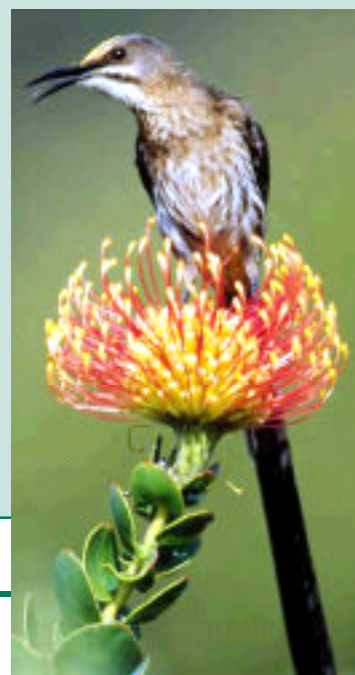
Surrounding the Cape Floral Kingdom are important marine, coastal and freshwater environments. More than 11,000 species of marine animals and 800 sea-weeds have been recorded. These resources provide income and employment for coastal communities involved in commercial and subsistence fishing and the tourism industry.

Due to a number of factors, at least 1,400 plant species are now endangered or close to extinction. Stocks of some marine fish and shellfish, in particular abalone, are now dangerously low, and 14 of the 19 species of freshwater fish are facing extinction. The direct threats to biodiversity are symptoms of a deeper set of problems relating to people's perceptions and political will. These are the fundamental challenges to address if the biodiversity of the Cape Floral Kingdom is to survive and to continue supporting local livelihoods.

The Cape Action Plan for the Environment (CAPE) was initiated to develop a long-term strategy to conserve biodiversity in the Kingdom's terrestrial, marine and freshwater ecosystems. Managed on behalf of the South African government by WWF-South Africa, after two years of analysis, consultation and planning, the Action Plan was presented to public and potential donors in September 2000.

The CAPE project has provided the people of South Africa, in particular those who live within the boundaries of the Cape Floral Kingdom, with tremendous hope, and has inspired the conservation community with vision and energy to turn plans into action.

Cape sugarbird, endemic to the Fynbos region and the main pollinator of Proteaceae flowers. WWF-Canon/Martin Harvey



from whaling more than 35 years ago. Following a study released by the British Royal Society, WWF warned that the main food source for Antarctic blue whales, krill, is under threat due to melting polar ice, linked to climate change. If this decline continues it will seriously affect the entire ecosystem of the Southern Ocean and could lead to the extinction of the blue whale in the Antarctic. The study concluded that the demand for krill now exceeds supply. Compounding the threat of climate change to krill populations is the interest shown by several countries to step up the commercial krill fishery, possibly to unsustainable levels. WWF fears that this activity could be the final nail in the coffin of the blue whale.

Africa and Madagascar

The African continent contains animals which come under four of WWF's 'flagship' species groups: African Elephant, black and white rhinos, great apes, and marine turtles. Full programmes are in place for work on elephants and rhinos. Programmes for apes and turtles are currently in preparation. To help WWF assess its overall conservation impact, a number of other species are also being monitored.

Preparations for the 11th CITES Conference of Parties included the Fourth African Range States Dialogue in Nairobi. This meeting was devoted to relieving the tension between the four range states (Botswana, Namibia, South Africa and Zimbabwe) that were proposing further limited trade



Blue whale — climate change and commercial fishing is seriously affecting the supply of krill in Antarctic waters, adding to the pressures on this giant of the seas.
WWF-Canon/Pieter Lagendyk

in ivory, and Kenya, which along with India had proposed the return of all elephant populations to CITES Appendix 1. Whilst the dialogue was unable to achieve agreement on the proposals, it certainly paved the way to the compromise solution that was agreed during the CITES conference: Kenya's resolution was withdrawn; South Africa's elephants were downlisted; trade in non-ivory products was given the green light; and no populations were returned to Appendix 1. Two WWF staff members — Dr Holly Dublin and Dr Martin Tchamba — were subsequently appointed to the CITES Technical Advisory Group established for the international system to monitor illegal killing of elephants (MIKE).

African rhinos have been reported to be stable or increasing in all but one of the populations that WWF is supporting. Kenya's 420 black rhinos were reported to be increasing at a rate of 4 per cent per year. Seventeen rhinos were successfully translocated from Nairobi National Park and Oljogi Ranch to Tsavo East National Park. WWF's southern Africa office joined a consortium of agencies to begin implementation of the SADC (Southern Africa Development

Community) Rhino Conservation Programme, with funding from the Italian government. In Zimbabwe, black rhino births increased the population in reserves from 194 to 209, while in Kwazulu-Natal and Kruger National Park in South Africa, rhino numbers have increased at between 6 and 7 per cent over the last five to seven years.

All of WWF's rhino field projects are carried out through partnerships with range state wildlife management authorities and/or private custodians or landowners. Two obstacles continue to impede progress: declining range state budgets for rhino conservation, and major staffing turnovers. WWF's Zimbabwe Rhino Conservancy faced the greatest challenge over the past year as a result of still unresolved land issues leading to a large number of people moving onto and settling on the conservancies.

Elephant conservation moved a technological notch higher under a joint WWF/North Carolina Zoo project in Cameroon when three animals were fitted with satellite collars to track movements in the Waza Logone, Kalamaloué and Benoué National Parks. No serious upsurges in elephant poaching were reported in any

of the range areas in which WWF operates. Cross-border efforts to tackle poaching are being made in Cameroon, Central African Republic, Congo and Gabon. And successful anti-poaching efforts continued in the Selous Game Reserve in Tanzania, which now has one of the largest elephant populations in Africa at nearly 65,000 animals — almost twice what it was twelve years ago. The Zimbabwe and Namibia populations, estimated at 84,000

and 7,684 respectively, are also reported to be increasing.

One of the main threats to Africa's great apes is the escalating bushmeat trade. Despite this, no losses of mountain gorillas were reported during the year by the WWF-supported International Gorilla Conservation Programme, and the 620 mountain gorillas in the Virunga mountains and Bwindi National Park all continue to survive. In Central Africa, the successful habituation to human

presence of a group of western lowland gorillas, composed of an adult male silverback, a female and a one-year old baby, should allow limited gorilla-based tourism in the Dzanga-Sangha Forest reserve.

Asia and the Pacific

Tigers featured strongly in the past year's long list of conservation successes for WWF's species work across the Asia/Pacific region. Activities in Bhutan, India, Indochina, Indonesia, Nepal, and Thailand included increased protection, anti-poaching, initiation of community-based tiger conservation, monitoring of population sizes, and tracking the illegal trade in tiger parts. In Indonesia, WWF completed the training and recruitment of anti-poaching units in Bukit Tigapuluh National Park in Sumatra, where at least six tigers were reported to have been killed in 1998-1999. Twelve poachers-turned-law enforcers are now employed in the team. In Bhutan, the first photographic evidence came of tigers living above 3,000 metres, while the first ever photographs were taken in Cambodia of tigers in the wild.

There was considerable activity during 2001 under WWF's Asian Rhino and Elephant Action Strategy (AREAS) programme, launched in 1998. In Nepal, 21 rhinos have now been translocated from Royal Chitwan National Park to Royal Bardia National Park, raising the number of rhinos there to over 75. The US Fish and Wildlife Service co-funded the operation, which was carried out by the Nepalese Department

People and Plants

Since 1997, the People and Plants Programme, a joint initiative of WWF, UNESCO and Royal Botanical Gardens Kew, in collaboration with the Nepalese Department of National Parks and Wildlife Conservation, has worked with the people of Dolpa in a remote area of Nepal close to the Tibetan border to conserve medicinal plants — the vital basis of traditional healthcare.

Trade in medicinal plants from the Himalayas has been growing rapidly — between 40–80 tonnes being exported annually from Dolpa alone. The building of a small airstrip 20 years ago resulted in greater access and increased pressure on vulnerable species. Selling medicinal plants is also an attractive proposition in this poor area, where few income-generating opportunities exist.

Over the past four years the People and Plants team has tried to gain a holistic understanding of the ecological, social, economic, cultural, and religious dimensions of conservation and sustainable use at Dolpa. Surveys revealed the breadth of knowledge among local healers ('amchis'), with up to 375 plants used in treatments in the lower Dolpa alone. The amchis know where the plants grow and how to harvest them properly. A survey found 18 species to be traded in large quantities and judging by the continuing growth in herbal medicine worldwide, the number of species traded and quantities may well rise.

Two major targets for further work were identified as a result of these surveys: development of a community-based model for medicinal plants management and enhancement of the capacities of the amchis and women to improve local healthcare. The inauguration of a Traditional Health Care Centre in June 2000 represented a milestone in this work, and another centre is planned. Efforts will also be made to create awareness of this project elsewhere in the Himalayas, given the great need in the whole region to improve ways in which medicinal plants are managed for the benefit of local communities and beyond.

of National Parks and Wildlife Conservation and the King Mahendra Trust for Nature Conservation. An experimental translocation of four rhinos to Royal Sukhlaphanta Wildlife Reserve also took place.

Efforts to boost anti-poaching patrols in Indonesia's Ujung Kulon National Park, the jewel in the country's network of protected areas, were successful in that no Javan rhinos have been lost during the last twelve months. A steady growth in ecotourism in the park is also boosting the livelihood of local communities. In Vietnam, rhinos have returned to the Phuoc Son salt lick after successful negotiations with local people to stop farming the area. To improve protection for rhinos and other animals in the park, three guard stations have been built and kitted out with radios and motorbikes, and a high-speed boat provided for patrolling the adjacent Dong Nai River.

Following intense lobbying by WWF in Indonesia, the Governor of Riau province made a recommendation to the federal government that the Tesso Nilo area be set aside as an elephant conservation area. However, influential timber companies and logging groups are fighting the proposal and the outcome is far from certain. If WWF fails, the entire forest may be completely logged over within the next seven years. WWF now needs to demonstrate how protecting the area can benefit both local communities and government.

In Thailand, WWF helped the Thai Elephant Conservation Centre and Royal Forestry Department develop the



One of 21 rhinos translocated from Nepal's Royal Chitwan National Park to Royal Bardia National Park, raising the number of rhinos there to over 75.

WWF Nepal

country's first ever conservation action plan for the Asian elephant. In addition, 16 elephants were reintroduced into the wild in three areas, and further releases are planned. Further surveys of Asian elephants have taken place in north-east Cambodia to determine the species' distribution, seasonal movements, preferred habitat, seasonal water sources, salt licks, and food sources. Much of the research effort to date has also helped build capacity among Cambodian conservationists to plan and conduct surveys on their own and share their findings with the international community.

A recommendation by the Vietnamese Vice Prime Minister to redraw the boundaries of Cat Ba Marine National Park and allocate the park's buffer zones for commercial aquaculture could have adverse consequences on plant and animal life, especially the golden-headed langur. This critically endangered primate is only found in the wild on Cat Ba Island in Halong Bay. Its population is believed to number as few as 100 individuals. WWF is looking to engage in dialogue with government to find a

balance between economic needs and those of conservation without damaging the integrity of the park. To date, WWF, with support from the Dutch government, has been instrumental in establishing an environmental education centre which provides schoolchildren and visitors with information about the park and involves them in educational activities along the park's nature trails.

In June 2001, an agreement on the conservation of albatrosses and petrels was signed at Australia's Parliament House by representatives of all southern hemisphere nations surrounding the Southern Ocean (the home range of the birds) and by nations with interests in the region. WWF-Australia has previously advocated successfully for the listing of albatrosses on the country's Endangered Species Act (1992) and for the listing of commercial long-line fishing as a main cause of seabird mortality.

A seven-week survey of Indus river dolphins along the entire 1,370km length of the Indus concluded that some 1,000 individuals inhabit its lower reaches. The data collected by a team of biologists from WWF and the government of Pakistan

will enable conservationists to secure a future for this peculiar, blind species. Described as a 'living fossil', the Indus river dolphin is one of only five species that have, over a period of millions of years, adapted to living in fresh water. It uses high-frequency sound to navigate, socialize and locate its prey in much the same way as a modern submarine uses sonar. A serious threat to the survival of the dolphin is entrapment in narrow irrigation canals. The population has been fragmented into different sections of the river by construction of barrages that divert water into the world's largest irrigation system. These small populations have slowly dwindled due to inbreeding or as animals wash downstream during floods. Recent extreme droughts in South Asia have made the situation worse as water levels drop to record lows, drastically reducing the areas of river available to the dolphins.

In other highlights, two rare dolphin species — the Irrawaddy dolphin and the Indo-Pacific humpback dolphin — were found in the waters of the Kikori reserve in Papua New Guinea. The remains of an unidentified species of deer were discovered in Bhutan's Thrumshingla National Park. Scientists have yet to establish whether it is a species new to science or that of the extinct Bhutan Shou deer. In Vietnam,

This Indus river dolphin was found trapped in an irrigation channel and released back into the river.



Siamese crocodile — subject of a reintroduction programme in Vietnam.

WWF/B Hayes

private breeders and research institutes collaborated with WWF to develop a plan to reintroduce the endangered Siamese crocodile. And a WWF survey of wild orchids in Papua New Guinea's Moro and Lake Kutubu areas recorded 345 species, including at least 20 new to science.

In 2002, the AREAS programme will focus on issues of poaching, human/wildlife conflict, and habitat fragmentation. A regional tiger conservation action plan will also be launched, as will the Asia/Pacific component of the global marine turtle species action plan. Preparations will also get under way for the 12th CITES conference.

Europe and the Middle East

The EU Habitats Directive — the most important nature conservation legislation in Europe — entered into force in 1992. However, its implementation has been at best disappointing. WWF is campaigning vigorously to speed up realization of the 'Natura 2000' network which, when complete, will comprise thousands of sites of outstanding importance for both habitats and species across EU Member States.

WWF has produced a 'shadow list' of Natura 2000 sites which have yet to be designated by national governments. Within a year of publishing this list, the number of candidate sites officially proposed by Member States had increased by nearly a quarter. Simultaneously, WWF has been lobbying governments and working with the European Commission to influence the way in which the EU's vast expenditure on agriculture and regional development is applied. WWF believes that implementation of the Habitats Directive can only succeed if these huge EU budgets are redirected to support sustainable rural development. As a member of the European Habitats Forum, WWF is actively engaged in the 'Natura 2000' site selection process, working to ensure that the network's coverage really will provide adequate protection for Europe's threatened species and habitats. The 13 'Candidate countries', mostly in central and eastern Europe, queuing to join the EU will have to comply with the Habitats Directive from day one of their membership. Recognizing the rich biodiversity of the region, WWF is pressing for full and speedy implementation, with a special focus on priority Global 200 Ecoregions such as the

Mediterranean, Baltic Sea, the Danube, and the Carpathian Mountains.

WWF currently has two initiatives underway to save or reintroduce large carnivores and large herbivores to appropriate natural sites within Europe. Key to the success of these programmes are public awareness, in particular to gain public acceptance for carnivores like the wolf, and adequate protection and management of the species' habitats. Through these initiatives WWF hopes to see stable and successful populations of animals such as brown bears, wolves, Iberian lynxes, wolverines, wild horses, bison, gazelles, wild goats and wild sheep re-established in former ranges across Europe. To date, Konik horses have been successfully reintroduced to Latvia; the European Bison has been returned to its original habitat in Russia and Poland, where about 30,000ha of grasslands have become newly protected areas; and the number of Mongolian Saiga antelopes has more than doubled since 1998 thanks to appropriate protection of its home range in the Altai-Sayan ecoregion.

According to the most recent tally of wolves in Norway and Sweden, the South Scandinavian population numbers approximately 80 animals in up to twelve family groups, three of which roam only in Norway. WWF and five other NGOs in Sweden and Norway launched a strong attack on the Norwegian government's wildlife policy after permission was granted to shoot nine wolves in February 2001. The government's Directorate for Nature Management originally proposed

to kill up to 20 wolves in response to complaints from sheep farmers about losing livestock to carnivores. In July, a licence to cull four more wolves was issued after 22 sheep were claimed to have been wounded or killed by wolves. An advisory panel of Swedish and Norwegian scientists concluded that a minimum of 500 wolves is needed for the long-term viability of the wolf in South Scandinavia. WWF-Norway has been pressing the government to explain the official rationale behind the decisions.

In collaboration with the TRAFFIC programme and a wide range of international NGOs, WWF has set up a pan-European migratory fish project with a particular focus on salmon and sturgeon. The first success came in Russia when the government set the commercial fishing quota for beluga sturgeon to zero. The long-term benefit of sturgeon conservation will be further promoted, along with public awareness campaigns for the conservation of threatened aquatic species.

Among future initiatives in Europe, in the Mediterranean region WWF will be placing special emphasis on terrestrial ecoregions, aiming at

Eurasian lynx — part of WWF's Large Carnivore Initiative in Europe.
WWF-Canon/Roger Leguen



conservation of large mammals such as leopard, Mediterranean deer, Barbary ape, golden jackal, and brown bear.

Latin America and the Caribbean

In Latin America and the Caribbean, where habitat loss remains the greatest threat to the survival of plant and animal species, WWF has opted to focus on two 'flagship' species: marine turtles and mahogany.

The oceans surrounding the western hemisphere contain six of the seven species of marine turtles. While some species, such as the Pacific Olive Ridley, have recovered from the brink of extinction, the Pacific leatherback has plummeted in spite of efforts to protect traditional nesting beaches. Others, such as the green turtle of the Gulf of California and the Galapagos, and the hawksbill turtle of the Caribbean continue to be threatened by illegal harvesting for meat, eggs and shells.

The largest concentration of leatherbacks in the world is observed every year from March to August in the Guianas (Guyana, Suriname and French Guiana). During this year's nesting season an average of 70 leatherbacks were sighted per night on the beaches of French Guiana, whereas in 2000 up to 300 were recorded per night during the month of June. An alarming number of strandings have occurred this year; during April, the number of dead leatherback turtles found on the beaches of French Guiana sometimes reached 11 a day. To tackle this problem, the WWF Guianas Forests and Environmental Conservation

Project is providing financial and technical support for increased patrolling of coastal waters near the nesting beaches. The initiative also aims to address the issue of incidental by-catch of marine turtles in the fishing industry. The Guyana Marine Turtle Conservation Society, WWF's partner in Guyana, is working with the Ministry of Agriculture and Fisheries to establish a temporary fishing ban in the coastal waters off the nesting beaches and launched environmental education efforts targeting fishermen.

Mahogany, especially big-leafed mahogany, is a keystone species, both ecologically and economically. One of the tallest trees in Neotropical America, it supports a multitude of plant and animal species and many healthy local economies. Big-leafed mahogany is currently the most commercially important of the species, replacing Honduran and Caribbean mahogany, both of which are considered

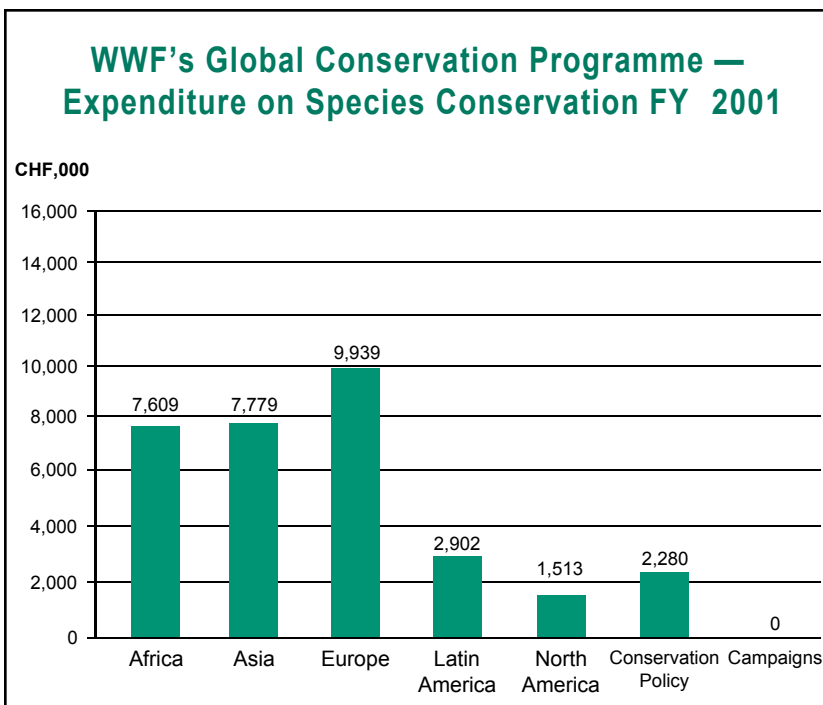


Mahogany supports many plant and animal species and local economies. WWF-Canon/Paul Forster

commercially extinct throughout much of their ranges. However, demand for this valuable timber is still high, with the United States driving a highly lucrative trade in big-leafed mahogany that threatens some of the world's most valuable Amazonian rainforests. A recent study by TRAFFIC found that the US accounts for 60 per cent of the global mahogany trade. According to the report *Mahogany Matters: The US Market for Big-Leafed*

Mahogany and its Implications for the Conservation of the Species, the equivalent of about 57,000 big-leafed mahogany trees was harvested and shipped to the US in 1998 alone to supply a robust business in mahogany furniture.

Where it has been depleted in the Caribbean and Central America, mahogany is now being harvested from the denser, tropical forests of Latin America, including Peru and Brazil, in some of the most biologically diverse regions in the world. Roads designed for felling high-value trees like mahogany allow access to migrating farmers who convert the forests to farmland, increasing the loss of plant and animal species. In Peru, the distance from mahogany forests to mills is increasing, indicating that forests are being mined, not managed. The report states that consumers, importers and governments can demand and buy mahogany products that are certified environmentally friendly by the Forest Stewardship Council (FSC). Currently, two US companies import FSC-certified mahogany, but the demand, and the supply, is increasing. Big-leafed mahogany is a valuable component of many local economies and should continue being harvested. It simply needs to be done in a more methodical fashion that ensures a long-term supply and the survival of threatened and endangered species.



climate change

In the last six years, climate change moved from the back page to the front. It has gone from an issue that governments could ignore, to one that affects foreign policy and national elections.

It is fair to say that non-governmental organizations generally, and WWF specifically, can claim a good deal of the responsibility for lifting climate change to the top of the political agenda.

WWF has been present and active in the key moments of the climate debate — highlighting the scientific basis for action, convincing companies to move forward, engaging the public, and pressuring governments to adopt a serious approach to climate change. The acceptance by 178 countries of the climate treaty in July 2001 is but the start of a whole new phase of work. Huge challenges lie ahead, not least ratification of the treaty and positive steps to turn promises into reality.

WWF is well prepared to face those challenges head on by using the lessons it has learned over the last six years to move the world to the next stage — a world where carbon has a value, businesses have carbon management plans, and governments are held truly accountable for their actions on climate change. WWF is well placed and ready to go.

Jennifer Morgan

Director, Climate Change Programme



The green option — a wind farm in the Netherlands where 200,000 homes are now plugged into renewable energy.

WWF-Netherlands

Global highlights

- 178 countries, but excluding the United States, signed up to the Kyoto Protocol at the climate summit in Bonn in July. WWF is now campaigning for rapid ratification of the treaty. While the deal is weaker than hoped for, it provides a sound architecture for reducing carbon dioxide emissions.
- IBM, Johnson and Johnson, and Polaroid became the first three international companies to sign up to WWF's Climate Savers programme, committing themselves to making absolute reductions in their greenhouse gas emissions.
- 140 companies from nine countries including the US and Japan signed the European Business Council for Sustainable Energy's 'e-mission 55 — Business for Climate' backing the Kyoto Protocol.
- Following a WWF campaign to promote renewable energy in the Netherlands, more than 200,000 households are now subscribing to green electricity, prompting WWF to consider mounting a European-wide consumer campaign.
- In Brazil, climate change is now a key factor in planning new protected areas.

WWF's vision for climate change

WWF's vision for climate change is that, by 2030, the supply and use of energy and raw materials will have been transformed. Policy-makers, the private sector, and investors — driven by pressure from civil society — will have taken action to reduce carbon dioxide emissions and curb human-induced global warming. Serious damage to the world's most important areas from climate change will be avoided.

Targets

To achieve its vision WWF's Climate Change Programme has set three global targets:

- By 2010, ten per cent reduction below 1990 emissions in industrialized country carbon dioxide emissions
- By 2010, initiatives should be underway in 30 developing countries to implement solutions leading to a significant reduction in carbon intensity, in particular from the combustion of fossil fuels
- By 2010, 50 countries are implementing adaptation strategies in key ecoregions/biomes and sectors of their economies on the basis of national plans for

the reduction of vulnerability to climate change.

The Intergovernmental Panel on Climate Change (IPCC) states that a 60–80 per cent reduction in carbon dioxide (CO₂) emissions is necessary by 2050 to avoid serious climate change impacts. A 10 per cent cut in CO₂ emissions in industrialized countries by 2010 will ensure that investments and technological progress are made that will enable deeper cuts in the future. Actions aimed at reducing emissions will include an initial focus on the power sector, this being the largest contributor (34%) to world CO₂ emissions, possessing the greatest reduction potential and being a sector in which WWF already has some experience. This will be complemented by pushing for legislation governing CO₂ emissions from the power sector in major industrialized countries and a continued effort to obtain entry into force of the Kyoto Protocol by the time of the Rio+10 Summit on Sustainable Development in September 2002.

The second target aims at laying the foundations for solutions to climate change in developing countries, through commitments from multinational investors and national legislation. Initially, the focus will be on the Asia/Pacific region where emissions growth rates and projected gross emissions are high, and where, with energy market liberalization and trade and investment patterns, there are increasing opportunities to work with the private sector.

The third target is a direct response to the increasing

evidence of climate change impacts on biodiversity. WWF will continue to document the impacts of climate change on wildlife and develop appropriate conservation strategies, particularly in the Global 200 Ecoregions.

Combating climate change

Overview

Developing a coherent and cross-cutting strategy on climate change is fundamental to effective conservation. In most regions, global warming will tend to exacerbate the pressures already being exerted on natural ecosystems and, in some cases, will lead to radical shifts in species distribution and loss of ecological functions. Through its campaigning work on climate change, WWF aims to contribute — through a mixture of advocacy, policy work, partnerships and communications — to ensuring that policies to reduce greenhouse gas emissions are effectively implemented around the world before these impacts become overwhelming.

During the last two years, WWF's Climate Change Campaign has concentrated on three areas: continuing to raise awareness of the magnitude of the global warming problem; demonstrating the availability of cost-effective solutions; and pressing for credible national and international climate change policies. The campaign has continued to focus public and political attention on the need for immediate action, highlighting the threats to the Earth's key ecoregions. Studies

published include: impacts on biodiversity, showing likely extinctions due to the inability of species to adapt sufficiently rapidly to their changed environment; the risks to the maintenance of existing forest cover, particularly in the tropics; and the damage being done to fragile coral reefs.

Work on solutions has been designed to overcome the arguments that reducing greenhouse gas emissions will necessarily be costly and involve economic and social dislocation. Studies in the USA and Japan have demonstrated that both countries' Kyoto targets can be met with negligible economic impact and without recourse to the international carbon market. Climate Savers agreements — under which leading companies commit themselves to making absolute reductions in their greenhouse gas emissions — have been signed with IBM, Johnson and Johnson, and Polaroid.

Policy advocacy has concentrated on pressing for rules that ensure the environmental integrity of the Kyoto Protocol and for its ratification by national governments. A WWF-led public lobbying campaign — 'Climate Voice' — succeeded in mobilizing the public to send over 12 million messages to world leaders before the 2000 meeting in The Hague. Nevertheless, the political difficulties surrounding the international negotiations on the Protocol, in particular the unilateral rejection of the treaty by the United States administration, made for negligible progress.

Campaigning for the Kyoto Protocol

2001 began with the election of George W Bush as the new President of the USA. As a candidate, Mr Bush had voiced his scepticism about global warming and his opposition to the Kyoto Protocol. In March, he made his views known as President, sending a letter to four US senators that he was opposed to the Kyoto Protocol due to the economic harm it would cause the US and the fact that China and India do not have targets or timetables. He also broke his campaign promise to regulate CO₂ emissions from power plants. International reaction was loud and sustained. The future of the Kyoto Protocol was in doubt. With climate change and Kyoto appearing in media headlines around the world, the situation provided WWF with a prime campaigning opportunity.

In the USA, WWF ran a campaign to prevent the Bush administration from blocking other countries from moving forward with Kyoto. In Europe, public opinion polls were commissioned in Belgium, Italy, Spain, and the UK to demonstrate public support for the European Union moving ahead without the US. Success was achieved when Prime Minister Berlusconi of Italy stated his support for Kyoto and the Goteborg Summit solidified the heads of state around moving ahead with the treaty regardless of the US position.

In Japan, which is key to achieving the Kyoto Protocol without the inclusion of the USA, WWF staged a large symposium in Tokyo with keynote speakers from the IPCC and WWF; issued a scenario on how Japan could meet its emissions reduction target; published a study on competitiveness; undertook a national public opinion poll; and placed an advertisement signed by over 60 NGOs worldwide in the largest business newspaper asking Prime Minister Koizumi to back the treaty.

Recognizing the key role of business in the Kyoto debate, WWF threw its support behind the 'e-mission 55 — Business for Climate' initiative. Hosted by the European Business Council for

"Don't let the Protocol melt away" — WWF unveiled a 3.5-tonne ice sculpture of the Earth as the world's environment ministers convened in Bonn for decisive talks on the climate treaty.

WWF Climate Change Campaign



Sustainable Energy, the goal was to persuade 55 companies to state their support for the entry into force of the Kyoto Protocol. By the time of the climate treaty negotiations in Bonn in July, more than 140 companies from nine countries including the US and Japan had joined, declaring their support for the Protocol and wanting to see it enter into force. Among them are prominent companies such as Deutsche Telekom, the UK insurance company CGNU, household appliance manufacturer AEG, the Credit Suisse Group, Ricoh from Japan and the reinsurance company Swiss Re.

Campaigning work continued right up to and during the Bonn climate summit in July when Ministers from 178 countries concluded a political agreement to finalize the rules of the Kyoto Protocol. To a barrage of criticism by delegates at the summit, the US delegation confirmed their intention not to sign up. While the deal was weaker than WWF had hoped, it provides a sound architecture for setting CO₂ emissions from industrialized countries on a downward trend. It also sets the rules for the use of mechanisms such as emissions trading and the Clean Development Mechanism, and includes a funding package to assist developing countries in adapting to the inevitable impacts of climate change. The proposal also includes a limited amount of 'sinks' that absorb carbon from the atmosphere and binding consequences for countries that do not meet their targets. WWF immediately set about campaigning for countries to move to rapid ratification so that the Protocol enters into force by the Johannesburg Summit in September 2002.

Asia and the Pacific

Until now, the bulk of WWF's climate change activities have been focused on developed countries — those responsible for most of the world's CO₂ emissions and which have been seen as more likely to have the ability to pay for necessary technological changes. Now, the focus is shifting towards developing countries, with the Asia/Pacific region, vast areas of which lie at or close to sea level, at the forefront of future efforts to mitigate global warming.

Most of the climate work in the region in 2001 took place in China, with projects on partnership building, capacity strengthening, public awareness, and sustainable rural energy development. In the Philippines, WWF worked on raising political and public awareness with the Philippine NGO network on climate change and the Philippine Climate Change Information Centre on Information Dissemination, as well as being an influential voice in the Renewable Energy Network. Elsewhere, WWF looked at the potential impacts of climate change locally on people and wildlife, took part in public awareness symposia, and worked on engaging industries. The most widespread activity has been at the policy level, putting forward WWF's views on the actions needed to combat climate change to national governments.

With India and China as two of the world's largest (present and future) producers of greenhouse gases, WWF needs to engage these countries in advocating energy efficiency and cleaner fuels. The same work

The Lena Delta in Russia — melting Siberian permafrost is increasing water flows in rivers, bringing increased risks of flooding.
WWF Arctic Programme



will apply in conserving the Mekong River ecoregion, parts of which lie in Cambodia, China, Laos, Myanmar, Thailand, and Vietnam. The impact of climate change on marine ecosystems is also relevant to WWF's work in the South Pacific and the Philippines. All will require increasing capacity in advocacy and other technical skills related to climate change. Part of this will be met through the expansion of the WWF Climate Change Programme in the region.

One initiative in 2001 occurred in Bangkok, Thailand, in July. A public meeting on climate change, organized by the Centre for Ecological Economics, WWF and Greenpeace, called for a strong stance on the Kyoto Treaty by the Thai government and other members of the Association of South East Asian Nations (ASEAN) at the Bonn climate negotiations. The meeting also called for ASEAN to exert more influence on future climate negotiations, as well as to work more closely with civil society and other stakeholders to assure a 'safer' climate. Thailand, like many other developing countries, is particularly vulnerable to the impacts of climate change. Among the effects of climate change expected in Thailand are drops in rice and maize yields due to decreases in rainfall and water shortages.

Europe and the Middle East

Within Europe, reduction of greenhouse gas emissions to the atmosphere, in particular from



Fanning the flames of climate change — pollution pours into the air from a factory in Finland.
WWF-Canon/Mauri Rautkari

the burning of fossil fuels, is the prime focus of WWF work. For the EU to meet its commitment under the Kyoto Protocol to cut emissions by 8 per cent between 2008 and 2012, a shift to sustainable renewable energy sources will be necessary. These include solar and biomass, and clean technologies, as well as super-efficient buildings, appliances and motor vehicles. WWF's approach is twofold: strengthening the political framework for domestic emissions reductions provided by the global treaty on climate change, and cooperating with industry to develop alternative energy systems and influence the new-energy market.

In the year ahead, ratification of the Kyoto Protocol will be at the centre of political discussions, peaking in September 2002 at the global Rio +10 Summit for Sustainable Development in Johannesburg, South Africa. With its positive stance on emissions control and reductions, Europe has the opportunity not only to take the lead in developing new, energy-efficient technologies and new energy sources, but in establishing a market advantage, and at the same time helping developing countries to cut down on their own emissions.

Recognizing this, WWF is

collaborating with major electricity distribution companies to increase the use of 'green' energy. In the Netherlands, green electricity was introduced in 1995 and is now available nationally. The premium paid for green electricity (an additional 5–10% compared to non-renewable power generation) is invested in solar, wind and biomass energy production. At the start of WWF's campaign to promote renewable energy, 100,000 Dutch households were already subscribing to green electricity. Three weeks into the campaign, a further 20,000 households had converted. The number of subscribers has since grown to more than 200,000, encouraging WWF to mount a European-wide consumer campaign for green electricity.

WWF is also working with the construction sector to develop ambitious low-energy housing standards. More than 15,000 new homes will be built in the Netherlands using WWF's climate-saving standards. In Germany, five construction companies will renovate their buildings using WWF's low-energy recommendations, setting new and far-reaching benchmarks for the housing and building sector. Another project for the

near future is to 'green' one or two of the EU's key financial institutions.

WWF will also demonstrate how climate change and global warming influence biological patterns. A new study by the Russian Academy of Sciences shows that vast expanses of Siberian permafrost are thawing and that water flows in river systems, such as the Yenisey and the Lena, have significantly increased. The scientists cite the increase of average temperatures in recent years as the reason for the phenomena, and warn of serious consequences for both people and the environment.

One species that will suffer from warming temperatures is the polar bear. With the Arctic ice melting, polar bears are finding it more difficult to make their seasonal migrations — there is often simply not enough pack ice left. In a new project combining a scientific study with public awareness activities, WWF will highlight the plight of the polar bear. To further demonstrate the consequences of global warming, WWF will also conduct climate impact and adaptation studies in two Global 200 ecoregions in Russia.

Latin America and the Caribbean

Until 1999, there had been little work undertaken by WWF on climate change in the Latin America and Caribbean region. Over the past two years, however, the situation has changed considerably as awareness has grown of both the current and potential impacts of climate change, and the international negotiations on the Kyoto Protocol, particularly the

Clean Development Mechanism. As a consequence, climate change now forms an integral component of WWF's work in the region.

In Brazil, climate change is one of the variables taken into account in the planning of new protected areas. Work on the susceptibility of ecoregions and wildlife to climate change impacts will be the theme of initial assessments on the Brazilian and Argentinian sides of the Atlantic Forest. Four other proposals in priority ecoregions (the Pantanal, Cerrado, North Andes, and the Mesoamerican Caribbean Reef) have been prepared and await funding. Once completed, the studies will be compared to identify the conservation actions necessary to safeguard these ecologically valuable but vulnerable areas. A crucial element will be the links

between climate change and forest policy.

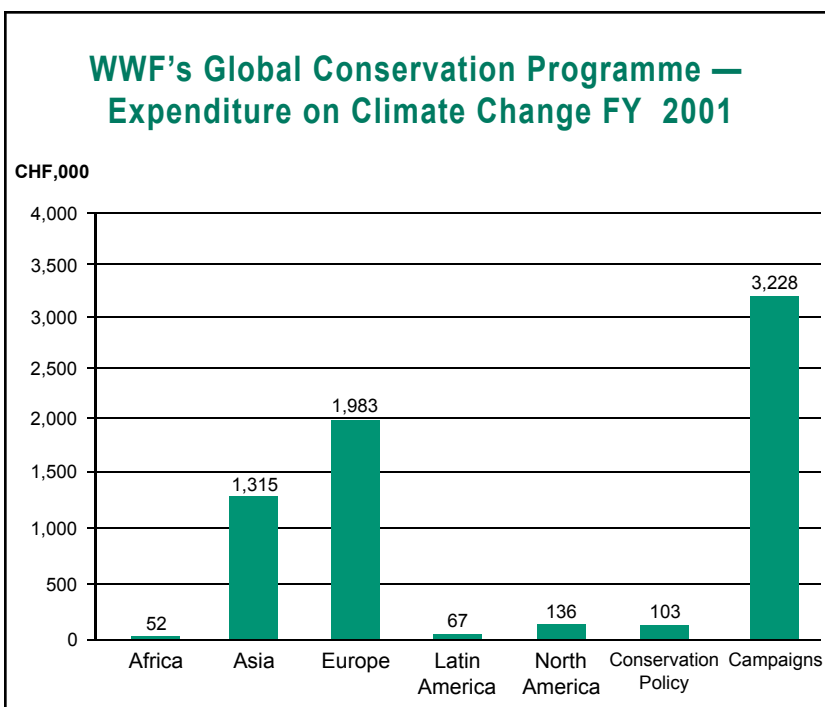
The development of strategies to reduce greenhouse gas emissions demand greater internal capacity within WWF in the region, as well more general awareness-raising activities publicly. Future activities will involve forming partnerships with research institutes, business and industry, and other NGOs.

North America

Since the climate treaty agreement in July, Prime Minister Chretien of Canada has stated that he hopes Canada will ratify over the next year. Much work, however, remains to be done in Canada to raise awareness of the problem of climate change and bring about domestic emissions reductions. WWF will be working with

other NGOs to influence this process.

In the United States battle lines are drawn for a domestic fight about emissions reductions. Although President Bush has rejected the Kyoto Protocol and put mandatory caps on carbon dioxide emissions from power plants, the US Congress sees things differently. The Bonn agreement places further immense pressure on lawmakers in the US to take action to reduce emissions. Key leaders from the Senate and the House have stated that climate change is the top environmental issue for the United States. WWF will be working to educate and activate the public in this national debate, further engage business to take on emissions reduction targets, and pass national legislation to reduce greenhouse gases.



toxic chemicals

Modern society has developed an extensive array of synthetic chemicals over the last several decades — chemicals to control disease, increase food production, kill pests, and make our daily lives easier. Ironically, many of these well-intentioned chemicals are now wreaking havoc around the world, threatening wildlife and people with the very qualities that made them useful — toxicity and persistence.

There is an urgent need to reform the international rules governing the manufacture and use of chemicals. Such reforms will require strong leadership and much greater public awareness. Efforts need to be focused not only on eliminating the world's most toxic chemicals, but also on expanding both society's understanding of chemical contamination issues and its ability to address them. Failure may compromise the health, intelligence, and behaviour of future generations of people, as well as wildlife such as whales, eagles, seals, polar bears, fish, and dolphins.

Given the unequivocal evidence of the serious damage caused by toxic chemicals, the shift to environmentally acceptable, effective, and affordable alternatives must be accelerated. Identifying such alternatives is generally not the problem; many are already in use around the world. The challenge is to make them more widely known and available.

Clifton Curtis
Director, Toxic Chemicals Programme



Industrial contaminants may be weakening the immune function of Arctic polar bears and may be linked to reproductive problems and abnormal genitalia among female bears in Norway's Svalbard region. Steven Morello

Global highlights

- The world's first international treaty dealing with the elimination of toxic chemicals, the Stockholm Convention on Persistent Organic Pollutants, came into being in May 2001. WWF is working to secure the 50 ratifications needed to bring the treaty into force.
- Following input to the European Commission's draft "Strategy for a Future Chemicals Policy", WWF is now recommending improvements that will broaden the range of chemicals included.
- WWF assisted the Central American Commission for Environment and Development and the Central America Commission of Ministries of Transport in developing the 'Regional Agenda for Port and Marine Environmental Security', targeted at preventing accidents and spillages involving toxic chemicals and other pollutants.
- WWF is carrying out research and policy work geared to recommendations for stricter environmental legislation for all mining activities within the EU. WWF is advocating the participation of accession countries in EU discussions on how to deal with toxic waste.

WWF's vision for toxic chemicals

WWF's vision for toxic chemicals is to see an end to threats to biological diversity from toxic industrial chemicals and pesticides — especially endocrine disrupting, bioaccumulative, or persistent chemicals — within one generation (by no later than 2020).

Targets

To achieve its vision for toxic chemicals, WWF's Toxic Chemicals Programme has set two global targets:

- By 2007, eliminate or reduce at least 30 of the most hazardous industrial chemicals and pesticides, with special emphasis on persistent organic pollutants (POPs) and endocrine disrupting chemicals (EDCs)
- By 2007, scientific, educational and regulatory initiatives will be firmly in place, enabling decision-makers (governments, industry, consumers) to make informed choices about toxic chemicals and their alternatives.

The first target addresses the international, national, and regional rules and regulations, as well as voluntary initiatives needed to phase out dangerous industrial chemicals and pesticides. An important first step will be entry into force of

the Stockholm Convention on Persistent Organic Pollutants, which targets 12 of the world's most harmful chemicals. WWF's goal is to secure the 50 ratifications necessary before the Rio+10 World Summit on Sustainable Development in Johannesburg in September 2002. WWF will also work to expand the scope of the Stockholm Convention, urging governments to double the number of chemicals covered under the treaty within the next five years.

A concerted effort is needed to ensure that NGOs, local communities, and people generally have an adequate understanding of, and access to, accurate and relevant information on toxic chemicals and alternatives. WWF's contacts and collaborations with environmental and public health NGOs around the world, as well as with consumers, educators, faith communities, indigenous peoples, labour groups, progressive companies, scientists, and other interested groups, provide a powerful network through which informed decision-making can be promoted. Using WWF's scientific and policy expertise,

combined with the organization's global reputation as a steward of biological diversity, WWF will catalyse opportunities to provide the necessary information and analyses as a basis for making environmentally sound decisions.

An assessment of toxic chemical threats to forests, freshwater ecosystems, oceans and coasts, species, and WWF's priority Global 200 Ecoregions is currently underway. This assessment will better position the Toxic Chemicals Programme to engage colleagues within and beyond WWF on options for mitigating and preventing toxic threats.

Combating Toxic Chemicals

Overview

Contamination from toxic chemicals has become pervasive and global. Wherever scientists look — the tropics, marine systems, industrial regions, the Arctic — they find the impacts of industrial chemicals and pesticides. These chemicals alter sexual, neurological, and behavioural development;

Obsolete pesticide stockpiles in Ethiopia — target of a new initiative to eliminate 50,000 tonnes of obsolete pesticides and heavily contaminated soil which have accumulated in African countries. Pesticide Action Network-UK



impair reproduction; and undermine immune systems, threatening the health of wildlife, people, and entire ecosystems. Urgent and precautionary action is required to address threats from the most hazardous chemicals, especially persistent organic pollutants (POPs) and endocrine disrupting chemicals (EDCs).

WWF scored a major victory at the end of 2000 when 122 governments meeting in Johannesburg, South Africa, finalized a global treaty — the Stockholm Convention on Persistent Organic Pollutants — that targets some of the world's most dangerous chemicals. Representing the most ambitious effort to date by the global community to rein in and halt the proliferation of toxic chemicals, the treaty is designed to eliminate or severely restrict production and use of the most pernicious chemicals, ensure environmentally sound management and chemical transformation of POPs waste; and prevent the emergence of new chemicals with POPs-like characteristics. As the lead NGO throughout the three-year negotiation process, WWF is now focusing efforts to obtain the 50 ratifications necessary to bring the treaty into force.

WWF has spearheaded the scientific investigation of EDCs, whether pesticides like lindane and endosulfan, or industrial chemicals such as the tributyltin used to repel barnacles on ships' hulls, the phthalates used in plastics, or bisphenol A used in the lining of tin cans. WWF's work has contributed to the steadily growing evidence linking EDCs

What are POPs and EDCs?

Persistent organic pollutants (POPs) are extremely toxic industrial chemicals and pesticides that persist in the environment, accumulate in the body fat of people and wildlife, and can travel great distances on wind and water currents.

Endocrine disrupting chemicals (EDCs), commonly found in consumer products, are synthetic chemicals that block, mimic or otherwise interfere with naturally produced hormones, the body's chemical messengers that control how an organism develops and functions.

to impaired health in wildlife and people.

To complement its high-level policy work, WWF's Toxic Chemicals Programme has begun focusing more attention and resources on community level decision-making. By working with existing networks, WWF hopes to educate and mobilize communities around the world to tackle toxic contamination at the local and regional levels. WWF will be partnering with NGOs, media, faith communities, scientists, indigenous peoples, progressive companies, and other sectors, particularly in developing countries and transitional economies.

Africa and Madagascar

The main toxics-related activity in Africa involves an emerging project to address the problem of obsolete pesticide stockpiles. Approximately 50,000 tonnes of obsolete pesticides and heavily contaminated soil have accumulated in African countries. The stockpiles include some extremely toxic pesticides which may be up to 40 years old. Many of these chemicals and their containers are in poor condition and threaten local and regional environments through the contamination of soil, water, and air.

The concept of a continent-wide project to clear all obsolete pesticide stocks from Africa and put in place measures to prevent their recurrence grew out of informal discussions, initiated by WWF, between NGOs and several intergovernmental organizations. Since December 2000, the idea of the Africa Stockpiles Project has evolved to a proposal that is currently supported by several organizations, including the Global Environment Facility (GEF), African Development Bank, Organisation for African Unity (OAU), World Bank, FAO, UNEP Chemicals, Pesticide Action Network-UK and Pesticide Action Network-Africa, and WWF. The Africa Stockpiles Project is looking forward to receiving a development grant from GEF to facilitate more detailed project preparations. It is anticipated that the prevention and disposal of obsolete stockpiles in Africa can enter an operational phase of intensive and uninterrupted work during the latter half of 2002.

Banning endocrine disrupting chemicals (EDCs)

Tinned food, plastic bottles and wrappings are some of the everyday items known to contain a set of toxic chemicals that act like hormones and have been linked to genital malformations, falling sperm counts and birth defects, and depressed immune systems in wildlife. There is growing concern that these chemicals may also be related to the increase in human health problems such as prostate and breast cancer.

When, in October 2000, the European Parliament debated the Lund Report on a proposed EU strategy for endocrine disrupting chemicals (EDCs), WWF contended that the European Commission's proposal for more research was inadequate. It urged Members of the European Parliament to vote in favour of Torben Lund's report calling for immediate EU action to reduce human exposure to known EDCs. WWF said that new information, available since the publication of the European Commission's draft strategy in December 1999, showed that further research was not necessary.

Commenting on the debate, Elizabeth Salter, Head of WWF's European Toxics Programme, said, "Human and animal exposure to known endocrine disruptors must be reduced as a matter of urgency. More research is also needed, but human health is too precious to wait until all five hundred plus suspected hormone-disrupting chemicals are thoroughly researched. The European Parliament would do the human race and the environment a great service if it obliged the European Union to take concrete action and phase out known hormone disruptors".

The European Parliament accepted the Lund Report, although in a watered down form.

Asia and the Pacific

Of the three principal WWF offices in the Asia/Pacific region carrying out work on toxic chemicals — Australia, Malaysia, and Pakistan — the work in Pakistan is the most developed with a programme covering capacity building, field-based projects, awareness raising, and support to students and NGOs. Activities in 2001 included a training course in waste reduction and disposal techniques for hospitals, and publication of public information sheets on toxic chemicals. In

Malaysia, work focused primarily on data collection and awareness-raising, while WWF-Australia gave support to the Australian National Toxics Network. With the advent of the global POPs treaty and greater resources within WWF to address the issue, the momentum for expanding work on toxic chemicals in the region is growing fast.

Europe and the Middle East

WWF was influential in the drafting of the European

Commission's chemical review proposal, a strategy for toxics management on a global scale that offers the promise of protecting future generations of people and wildlife from exposure to chemicals. WWF was the leading NGO voice in the four-year negotiation of the 'White Paper' prior to its 2001 release, and is now recommending improvements that will broaden the range of chemicals included and help ensure sufficient funding. The paper is a significant step towards ensuring that the chemical industry guarantees the safety of chemicals before they are used. There are over 80,000 man-made chemicals in existence, of which 30,000 are traded in commercial volumes in the EU.

In response to chemicals-related incidents such as the severe toxic pollution of the Tisza River in Romania and Hungary in February 2000, WWF is carrying out research and policy work geared to recommendations for stricter environmental legislation for all mining activities within the EU. Already, the European Commission has updated the EU hazardous waste list, adding several substances which in the future will require risk-free management and disposal techniques. Since mining regulations are weaker in the EU accession countries, WWF is strongly recommending that these countries be involved in any EU discussions or action on toxic waste lagoons.

Another toxics initiative in Europe concerns the North East Atlantic, one of WWF's focal Global 200 Ecoregions. Marine wildlife is severely threatened

by toxic industrial chemicals and agricultural pesticides. Of special concern are the EDCs that can mimic or interfere with hormone balances (see 'Banning hormone disrupting chemicals'). WWF is working towards a phase-out of the use of toxics and the cessation of all hazardous substances that are currently affecting the open sea and coastal areas of the North East Atlantic.

Latin America and the Caribbean

Efforts in Latin America and the Caribbean have focused on specific national, subregional, and ecoregional toxics issues. In Colombia, WWF is carrying out a DDT intervention programme and studies on aerial fumigation of illegal crops. In Guyana, as part of the Guayanese Forests Environmental Conservation Project, WWF is monitoring the environmental and health impacts of mercury used in artisanal gold-mining. Preliminary results from tests on



Killer whales swimming in the waters around Washington, USA and British Columbia, Canada are considered among the most contaminated marine mammals in the world.

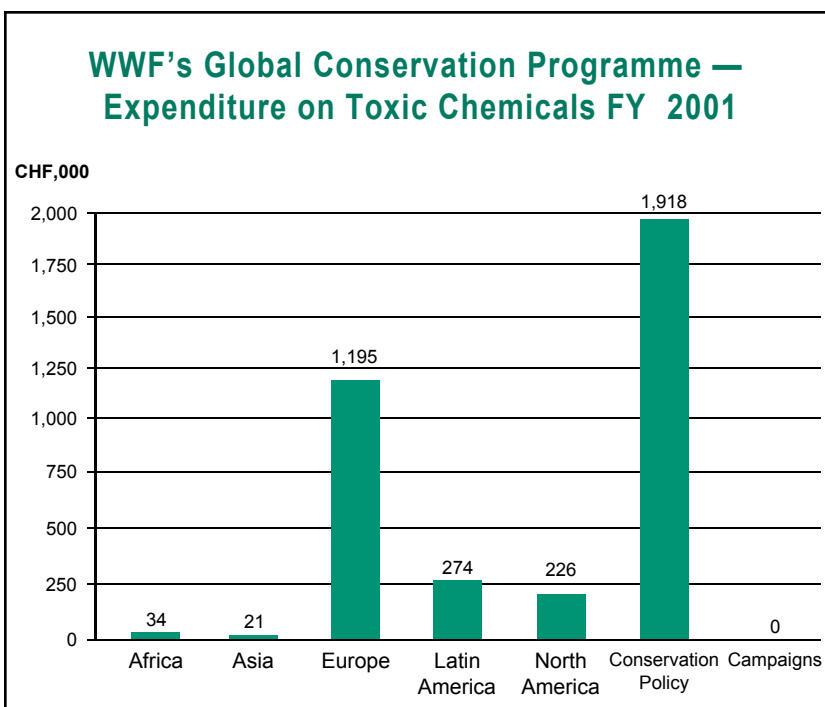
H Strager

people and fish in both Surinam and Guyana show significantly high levels of mercury.

In Central America, as part of the USAID-funded Proarca-Costas Phase I project, WWF helped CCAD (Central American Commission for Environment and Development) and COMITRAN (Central America Commission of Ministries of Transport) to develop the 'Regional Agenda for Port and Marine Environmental Security'. Given increasing shipping and the parlous state of major ports in Central America, the region is at high risk from environmental disasters related to toxic

chemicals and other pollutants. Few international agreements and accords are in place, and the topic is not high on the agenda of national governments. Therefore the development of the Regional Agenda has been key to defining the main steps required to increase port security, emphasizing both regional and national activities and responsibilities.

Toxic chemical issues clearly affect the priority ecoregions, yet current knowledge and understanding of the extent of chemical contamination threats are limited. For example, inorganic pollutants such as mercury that threaten aquatic and marine ecosystems associated with use in mining are reasonably well known. However, there is often limited understanding of the hazards of POPs and EDCs at the ecoregional level. Given their persistent, bio-accumulative properties and effects on reproductive systems, however, efforts will continue to explore ways to integrate a toxics component in ecoregional work. Preliminary work has started in the Gulf of California.



financial overview

WWF relies on the generosity of individuals as its major source of funding. In 2000, 44 per cent of the organization's income came from this source. Legacies and donations from trusts and foundations amounted to 16 per cent.

A substantial part of WWF's income is derived from government grants and aid agencies. Often, these funds — which in 2000 amounted to 20 per cent — are provided either as 'matched' funds made available only when WWF itself raised a specific amount, or as 'restricted' funds for use on one specific project or in a particular country.

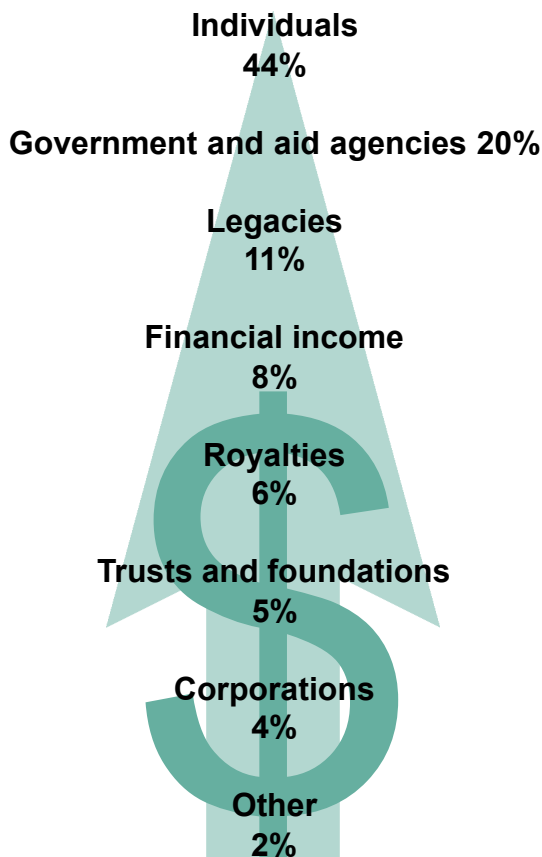
WWF also works in creative and innovative ways with business and industry to raise funds and spread the conservation message. These 'mutual benefit marketing' relationships include licensing

WWF's panda logo to companies in exchange for royalties. Companies engaging in this practice benefit through a visible link with the world's most recognizable conservation organization, while the natural world benefits from the funds raised.

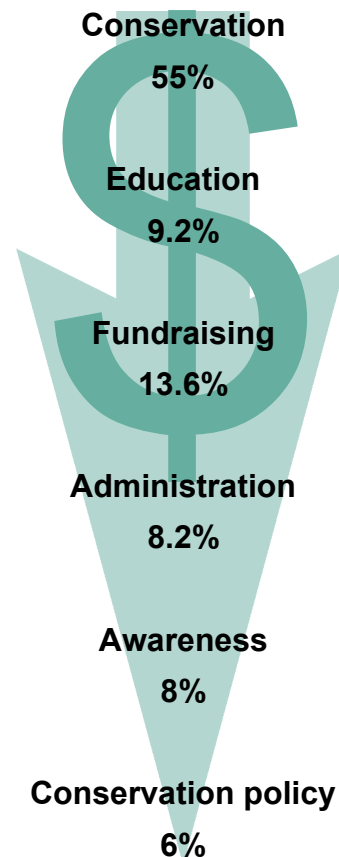
Established in 1971 by HRH Prince Bernhard of the Netherlands, WWF's 1001: A Nature Trust comprises 1,000 individuals who have made substantial financial contributions to WWF over the years. The interest from the trust, the capital of which is currently more than CHF 16 million (USD 10.7 million), helps meet WWF International's basic administration costs. When vacancies occur in the trust, new members are invited to join for a contribution of USD 25,000 (CHF 37,500).

WWF NETWORK INCOME AND EXPENDITURE FY 2000

Income US\$360 million



Expenditure US\$364 million



WWF around the world

WWF International Senior Programme Staff

Director General
Claude Martin

Programme Director
Chris Hails

Forests for Life Programme
Chris Elliott

Living Waters Programme
Jamie Pittock

Endangered Seas Programme
Simon Cripps

Species Programme
Susan Lieberman

Climate Change Programme
Jennifer Morga

Toxic Chemicals Programme
Clifton Curtis

Africa/Madagascar Programme
Yaa Ntiamo-Baidu

Asia/Pacific Programme
Isabelle Louis

Europe/Middle East Programme
Magnus Sylven

Eastern Europe/Central Asia Programme
Hartmut Jungius

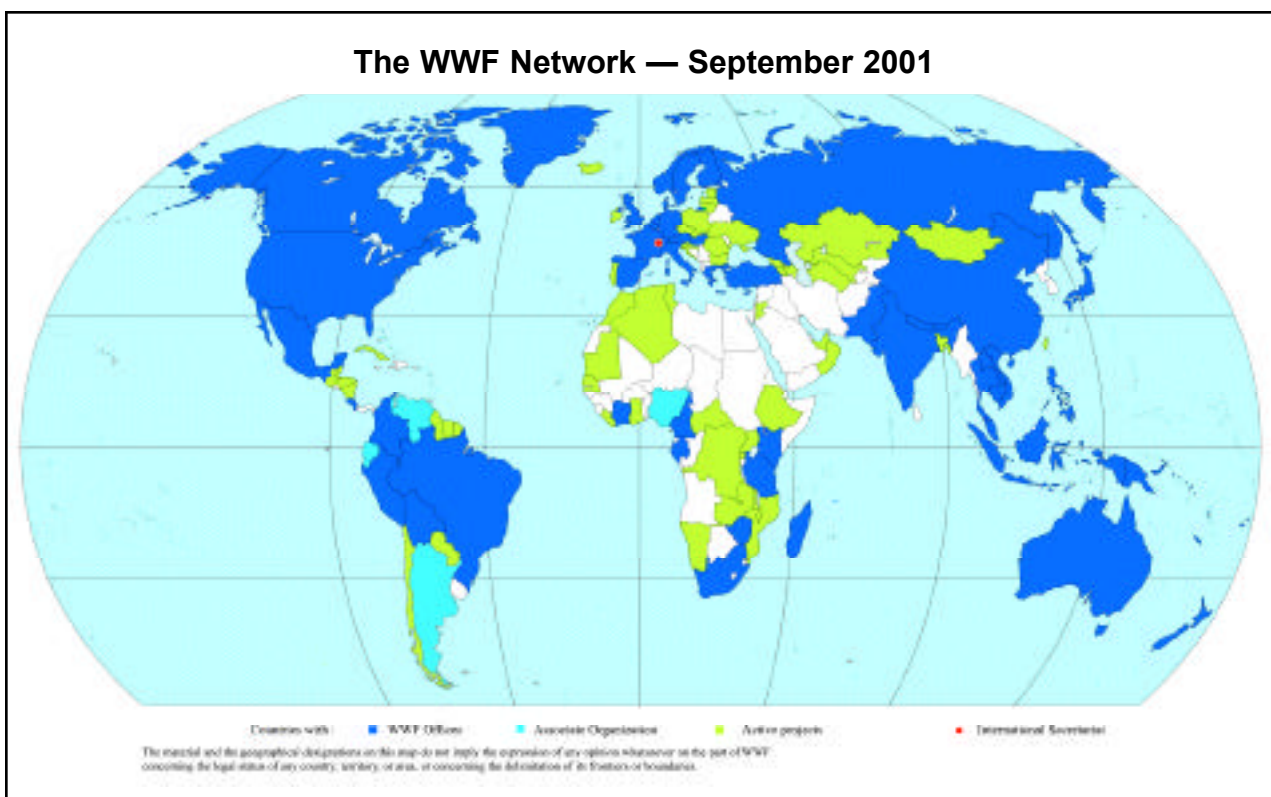
Latin America/Caribbean Programme
vacant

Conservation Policy Programme
Jenny Heap

Ecoregion Conservation
Sheila O'Connor

Government and Aid Agencies
Timothy Geer

Programme Services and Evaluation
Peter Dickinson



The WWF Network

INTERNATIONAL SECRETARIAT

Avenue du Mont-Blanc
1196 Gland, Switzerland
Tel: +41 22 364 9111
Fax: +41 22 364 5358
President (Acting): Sara Morrison
Director General: Claude Martin

AUSTRALIA

GPO Box 528, Sydney
NSW 2001
Tel: +61 2 9281 5515
Fax: +61 2 9281 1060
President: Robert Purves
Chief Executive: David Butcher

AUSTRIA

Postfach 1, 1162 Vienna
Tel: +43 1 488 17 0
Fax: +43 1 488 17 29
Chairperson: Helmut Pechlaner
Chief Executive:
Günther Lutschinger

BELGIUM

Boulevard Emile Jacqmain 90
1000 Brussels
Tel: +32 2 340 09 99
Fax: +32 2 340 09 33
President & Chairperson: Guido
Ravoet
Chief Executive: Xavier Ortegat

BHUTAN

WWF Bhutan Programme Office
Post Box 210, Chubachu,
Thimphu
Tel: +975 2 323 528
Fax: +975 2 323 518
Representative: Kinzang Namgay

BOLIVIA

PO Box 1633
Santa Cruz
Tel: +591 3 365326
Fax: +591 3 325416
Representative: Roger Landivar

BRAZIL

SHIS EQ QL 6/8, Conjunto
E – 2° andar, 71620-430 Brasilia
Tel: +55 61 364 7400
Fax: +55 61 364 7474
President & Chairperson: José
Roberto Marinho
Chief Executive: Garo Batmanian

CAMEROON

Bastos BP 6776, Yaounde
Tel: +237 21 70 83
Fax: +237 21 42 40
Representative:
Laurent Magloire Somé

CANADA

245 Eglinton Ave East, Suite 410
Toronto, Ontario M4P 3J1
Tel: +1 416 489 8800
Fax: +1 416 489 3611
Chairperson: Michael de Pencier
Chief Executive: Monte Hummel

CENTRALAFRICA

BP 9144, Libreville
Gabon
Tel: +241 73 00 28
Fax: +241 73 80 56
Representative: Dr Frank Attere

CENTRAL AMERICA

Centro Agronómico Tropical de
Investigación y Enseñanza
Turrialba, 7170 Catie, Costa Rica
Tel: +506 556 1383
Fax: +506 556 1421
Acting Representative:
Steve Gretzinger

CHINA

Room 901, The Gateway
10 Yabao Road
Chaoyang District
Beijing 100020
Tel: +86 10 6595 9891
Fax: +86 10 65915731
Representative: Jim Harkness

COLOMBIA

Carrera 35 #4A-25
San Fernando, Cali, Valle
Tel: +57 2 558 2577
Fax: +57 2 558 2588
Representative:
Mary Lou Higgins

DANUBE/CARPATHIAN

Postfach 1, 1162 Vienna
Austria
Tel: +431 488 17 253
Fax: +431 488 17 276
Representative: Phil Weller

DENMARK

Ryesgade 3 F, 2200
Copenhagen N
Tel: +45 35 36 36 35
Fax: +45 35 24 78 68
Chairperson: Johan Schroeder
Chief Executive: Kim Carstensen

EASTERN AFRICA

PO Box 62440, Nairobi, Kenya
Tel: +254 2 577 355
Fax: +254 2 577 389
Representative:
Samuel Kanyamibwa

EUROPEAN POLICY

36 Avenue de Tervuren – B12
1040 Brussels, Belgium
Tel: +32 2 743 88 00
Fax: +32 2 743 88 19
Representative: Tony Long

FINLAND

Lintulahdenkatu 10
00500 Helsinki 50
Tel: +358 9 774 0100
Fax: +358 9 774 02139
President & Chairperson:
Elisabeth Rehn
Chief Executive: Timo Tanninen

FRANCE

188 Rue de la Roquette
75011 Paris
Tel: +33 1 55 25 8484
Fax: +33 1 55 25 8474
President: Daniel Richard
Chief Executive:
Cedric du Monceau

GERMANY

Postfach 190 440
60326 Frankfurt/Main
Tel: +49 69 79 1440
Fax: +49 69 61 7221
Chairperson:
Carl-Albrecht von Treuenfels
Chief Executive: Georg Schwede

GREECE

26 Filellinon Street, 105 58
Athens
Tel: +30 1 331 4893
Fax: +30 1 324 7578
President: Thymio Papayannis
Chief Executive:
Demetres Karavellas

HONG KONG

GPO Box 12721
Hong Kong
Tel: +852 2526 1011
Fax: +852 2845 2734
Chairperson: Markus Shaw
Chief Executive: Winnie Sek

HUNGARY

Németvölgyi út 78/b
1124 Budapest
Tel: +36 1 214 5554
Fax: +36 1 212 9353
Representative: László Haraszthy

INDIA

172-B Lodi Road
Max Mueller Marg
New Delhi 110 003
Tel: +91 11 469 1760
Fax: +91 11 462 6837
President: Jamshyd N. Godrej
Chief Executive: Meeta R. Vyas

INDOCHINA

International PO Box 151
Hanoi, Vietnam
Tel: + 84 4 733 8387
Fax: + 84 4 733 8388
Representative: Eric Coull

INDONESIA

PO Box 5020 JKTM 12700,
Jakarta
Tel: +62 21 576 1070
Fax: +62 21 576 1080
Chairperson: Haroen Al Rasjid
Chief Executive: Agus Purnomo

ITALY

Via Po 25/c
00198 Rome
Tel: +39 06 844 9 71
Fax: +39 06 853 00 612
President: Fulco Pratesi
Chief Executive:
Cesare Martinelli

JAPAN

Nihonseimei Akabanebashi Bldg.
3-1-14 Shiba, Minato-ku
Tokyo 105-0014
Tel: +81 3 3769 1711
Fax: +81 3 3769 1717
Chairperson: Teruyuki Ohuchi
Chief Executive: Michio Hino

**MACROECONOMICS FOR
SUSTAINABLE
DEVELOPMENT**

1250 24th St NW
Washington, DC 20037-1175
Tel: +1 202 778 9752
Fax: +1 202 293 9211
Representative: David Reed

MADAGASCAR

BP 738, Antananarivo 101
Tel: +261 20 22 34885
Fax: +261 20 22 34888
Representative:
Jean-Paul Paddock

MALAYSIA

49 Jalan SS23/15
47301 Petaling Jaya
Tel: +60 3 7803 3772
Fax: +60 3 7803 5157
Chairperson: Tengku Adlin
Chief Executive:
Dato' Mikaaail Kavanagh

MEDITERRANEAN

Via Po 25/c
00198 Rome, Italy
Tel: +39 06 844 97227
Fax: + 39 06 841 3866
Representative: Paolo Lombardi

MEXICO

Ave Mexico No. 51
Col Hipodromo Condesa
06170 Mexico DF
Tel: +525 286 5631
Fax: +525 286 5637
Representative: Juan Bezaury

NEPAL

Post Box 7660, Kathmandu 2
Tel: +977 1 410942
Fax: +977 1 438458
Representative:
Chandra Prasad Gurung

NETHERLANDS

Postbus 7, 3700 AA Zeist
Tel: +31 30 6937 333
Fax: +31 30 6912 064
Chairperson: Hans Wijers
Chief Executive: Hans Voortman

NEW ZEALAND

PO Box 6237, Wellington
Tel: +64 4 4992930
Fax: +64 4 499 2954
Chairperson: Paul Bowe
Chief Executive: Jo Breese

NORWAY

Postboks 6784, St Olavs plass
0130 Oslo
Tel: +47 22 03 6500
Fax: +47 22 20 0666
Chairperson: Christian N.
Sibbern
Chief Executive:
Rasmus Hansson

PAKISTAN

PO Box 5180, Lahore 54600
Tel: +92 42 586 2360
Fax: +92 42 586 2358
President: Brig. Mukhtar Ahmed
Chief Executive:
Ali Hassan Habib

PERU

Casilla Postal 11-0205
Lima 11
Tel: +51 1261 5300
Fax: +51 1463 4459
Representative: Edgar Maravi

PHILIPPINES

No 69 Masikap Extension Cor,
Marunong Street
Diliman, 1101 Quezon City
Tel: +632 433 3220
Fax: +632 426 3927
Chairperson:
Jaime Zobel de Ayala
Chief Executive: Jose MA
Lorenzo Tan

RUSSIA

From Europe:
Account No WWF 232
PO Box 289
Weybridge
Surrey KT 13 8WJ
United Kingdom

From the US:
Account No WWF 232
208 East 51st Street, Suite 295
New York, NY 10022, USA
Tel: +7 095 727 0939
Fax: +7 095 727 0938
Representative: Igor Chestin

SOUTH AFRICA

Private Bag X2, Die Boord
Stellenbosch 7613
Tel: +27 21 888 2800
Fax: +27 21 888 2888
Chairperson: Ton Vosloo
Chief Executive: Ian Macdonald

SOUTHERN AFRICA

PO Box CY 1409, Causeway
Harare, Zimbabwe
Tel/Fax: +263 252533
Representative:
Harrison O Kojwang

SOUTH PACIFIC

Private Mail Bag
GPO Suva, Fiji
Tel: +679 31 55 33
Fax: +679 31 54 10
Representative:
Dermot O'Gorman

SPAIN

Gran Viade San Francisco 8
28005 Madrid
Tel: +34 91 354 0578
Fax: +34 91 365 6336
President:
Prof Francisco Díaz Pineda
Chief Executive:
Juan Carlos del Olmo

SWEDEN

Ulriksdals Slott, 170 81 Solna
Tel: +46 8 624 7400
Fax: +46 8 85 1329
Chairperson: Lennart Ahlgren
Chief Executive:
Prof Lars Kristoferson

SWITZERLAND

Postfach, 8010 Zürich
Tel: +41 1 297 2121
Fax: +41 1 297 2100
President: Brigitta Hellat
Chief Executive:
Carol Franklin Engler

TANZANIA

PO Box 63117, Dar es Salaam
Tel: +255 22 27 00077
Fax: +255 22 27 75535
Acting Representative:
Hermann Mwageni

THAILAND

PO Box 4, Klong Luang 12120
Tel: +66 2 524 6129
Fax: +66 2 524 6134
Representative: Robert Mather

TURKEY

PK 971, Sirkeci 34436, Istanbul
Tel: +90 212 528 2030
Fax: +90 212 528 2040
President: Okan Tapan
Chief Executive: Tansu Gurpinar

UNITED KINGDOM

Panda House, Weyside Park
Godalming, Surrey GU7 1XR
Tel: +44 1483 426444
Fax: +44 1483 426409
Chairperson: Sara Morrison
Chief Executive: Robert Napier

UNITED STATES

1250 24th St NW
Washington, DC 20037-1175
Tel: +1 202 293 4800
Fax: +1 202 293 9211
Chairperson (Board):
William K Reilly
Chief Executive:
Kathryn S. Fuller

WESTERN AFRICA

08 BP 1776, Abidjan 08
Côte d'Ivoire
Tel: +225 22 44 8786
Fax: +225 22 44 8774
Representative:
Souleymane Zeba

WWF Associates**ARGENTINA****FUNDACION VIDA SILVESTRE**

Defensa 251, 6° Piso
C1065 Buenos Aires
Tel: +54 11 4343 4086
Fax: +54 11 4331 3631
President: Héctor Laurence
Chief Executive: Javier Corcuera

ECUADOR**FUNDACION NATURA**

Casilla 17-01-253, Quito
Tel/Fax: +593 2 2 503 385
President: Rafael Teran
Chief Executive: Ricardo Moreno

NIGERIA**NIGERIAN CONSERVATION
FOUNDATION**

PO Box 74638, Victoria Island,
Lagos
Tel: +234 1 2642 498
Fax: +234 1 2642 497
Chairman:
Brig Gen. M. Johnson
Chief Executive:
Muhtari Aminu-Kano

VENEZUELA**FUDENA**

Apartado Postal 70376
Caracas 1071-A
Tel: +58 212 238 2930
Fax: +58 212 239 6547
President: Enrique Sanchez
Chief Executive: Deborah Bigio



© 1986, WWF - World Wide Fund For Nature (Formerly World Wildlife Fund) © WWF Registered Trademark

WWF is one of the world's largest and most experienced independent conservation organizations, with almost 5 million supporters and a global network active in over 96 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption.

WWF International

Avenue du Mont-Blanc
1196 Gland
Switzerland

Tel: +41 22 364 9111
Fax: +41 22 364 5358
www.panda.org

