WWF's Global Conservation Programme 2002/2003

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Inset: An Antshihanaka fisherman with his catch of mouthbrooder fish, Lake Aloatra, eastern Madagascar. (WWF-Canon / Olivier Langrand)

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The view from here – a cheetah atop a termite mound.
WWF / Martin Harvey

Introduction

This time last year I was writing the introduction to this annual report just before WWF marked the 40th anniversary of its founding – on 11 September 1961. Sadly, a year later, that date lives forever in our memories for events of greater horror than could ever have been imagined.

Those events threw into stark relief the differences and inequities that exist in our world. The social challenges at their heart arose from an indifference which is matched by that shown towards the global environment. The tragedy that unfolded in New York caused us to ask fundamental questions as to what is happening in the world and how it affects different cultures and communities, and many people began to think carefully about what could be done about it. It was a wake-up call to world leaders to look deeply at a number of important issues and take remedial action.

One significant opportunity for action came almost a year later at the World Summit on Sustainable Development (WSSD) in Johannesburg. One aim of that meeting was to speed up implementation of the ground-breaking agreements reached at the Earth Summit in Rio de Janeiro in 1992. Rio achieved a political and conceptual breakthrough which created a new wave of optimism that the world could indeed find a way of continued economic growth whilst reducing inequities and safeguarding environmental integrity. That optimism lasted for a while, but for the NGO community in general, and the environmental community in particular, the Rio rhetoric was mostly just that, and it has proved much harder than anyone ever imagined to break with "business as usual". There are many examples:

- The Climate Change Convention agreed in Rio was modest in its goals but, ten years on, the Kyoto Protocol is still not ratified, with the US and Australia in particular refusing to participate; meanwhile records show the 1990s as the warmest decade on record.

- The burning of oil, of which consumption grew by 14 per cent in the 1990s, accounted for 40 per cent of the 23 billion tonnes of new carbon dioxide (CO_2) added annually to the atmosphere.

- Although the Convention on Biological Diversity (another Rio product) has been ratified by more nations than any other environmental treaty, it lacks real teeth. (Scientists now estimate that on only five occasions in the past four billion years has biodiversity been destroyed at current rates – and then from natural causes.)

- The proportion of the world's threatened coral reefs has grown from 10 per cent to 27 per cent, and the continued rising and warming of seas will only make things worse.

- A UN report found that one-third of the world's human population lives in countries that are water stressed – a figure that could double by 2025 – and that as many as 30,000 people die each day from water-related diseases.

- Rates of deforestation have become confused as the UN Food and Agriculture Organisation (FAO) has loosened its definition of what constitutes "forest"; nonetheless, there are 1.7 billion people in 40 countries who rely for their well-being on forests which are now at a critically low level.

- Environmental catastrophes – among them loss of fish stocks, floods, droughts, and forest fires on a scale never seen before – are causing enormous economic and human losses on every continent, whilst subsidies which encourage overexploitation of land, sea and water continue unabated.

WWF International Programme Director Chris Hails in the Minkebe Reserve in northern Gabon with staff of WWF and the Ministry of Waters and Forests – the reserve is one of 13 new protected areas declared by President Bongo following an assessment carried out jointly by WWF and the Wildlife Conservation Society and was a significant step for the region in meeting the goals of the Yaoundé Declaration.

All this has happened in the ten years since Rio, a decade during which the value of nature's "services" – reliable water supply, prevention of erosion and floods, etc – was valued, in 1997, at US$33 trillion annually, twice the gross world product of that year.

The combined effect of all this can be seen in WWF's *Living Planet Report 2002*. It documents the decline in the natural health of the planet as the human footprint – the pressure our activity places on the Earth – increases. If the current trend continues, sometime in the next 50 years we will exceed the natural regenerative capacity of the Earth by a factor of two.

Perhaps it was the knowledge of the failures of the past decade that made the outcome of the WSSD such a disappointment. The time was ripe, the warnings had been posted, we knew much more about the challenges, but the world's leaders, so determined in many aspects of their difficult jobs, blinked and turned away.

The Summit failed to address energy issues, the harmful effects of trade liberalization and subsidies, made lukewarm statements to support the Biodiversity Convention, and compromised on toxic chemicals to the extent that the outcome was weaker than previous international agreements.

Some things were achieved however, including a determination to improve water supply and sanitation, the need to allow fish stocks to replenish, and establishment of an international fund to tackle poverty. Over 300 new partnerships between governments, businesses, and NGOs and other civil society organizations were forged. Among them, WWF, the government of Brazil, the World Bank and the Global Environment Facility (GEF) announced a new programme to triple the area of Amazon rainforest under protection.

Surprisingly, the meeting virtually gave up on setting real targets and timetables for many urgent issues. Targets and timetables may be inconvenient but to those keen to make substantive and measurable progress they are essential. In the pages of this report, you will find the targets and timetables for WWF's six global thematic programmes on forests, freshwater, oceans and coasts, species, toxics, and climate change. You can also find examples of some of the ecoregions targeted by WWF as being of overwhelming importance in saving the major part of the Earth's biodiversity. For each conservation target we have also set milestones which will allow WWF to judge whether its work is moving in the right direction. By adopting this approach, unlike many of the world's

Introduction

leaders, we can gauge our overall progress.

Among significant achievements in the past year, WWF has:

- helped establish 17.4 million ha of new forest protected areas
- helped establish certified sustainable forest management in 4 million ha
- encouraged governments to set aside 18.4 million ha of freshwater habitats for conservation – habitats which form the natural reservoirs for the world's water supply
- formed partnerships with a major bank for the conservation of freshwater
- helped create new protected areas in the marine environment
- campaigned successfully against harmful EU subsidies that promote overfishing
- lobbied hard, and with some success, for implementation of the Kyoto climate treaty
- succeeded in persuading major international companies to reduce their CO_2 emissions irrespective of the Kyoto accord
- lobbied governments to speed up ratification of the Stockholm Convention on toxic chemicals
- worked with the International Maritime Organisation (IMO) to phase out the use of toxic paints on ships.

Although these successes are modest compared to the size of the challenges we face, they nevertheless represent hard-won battles in the war to slow down the damage being done to the planet. Despite the disappointments of Johannesburg and the blow dealt to multilateral approaches to dealing with global problems, we remain optimistic that there are sufficient enlightened

In 2002, WWF encouraged governments to set aside 18.4 million ha of freshwater habitats for conservation – habitats which form the natural reservoirs for the world's water supply.

WWF-Canon / Anthony B Rath

governments, intergovernmental agencies, private corporations and partner NGOs with which WWF can form effective alliances to move forward on the major issues. More than ever, self-interested parties must not be allowed to kill the momentum gained over the past decade.

WWF will continue to fight for the protection of nature's special places and species, and work with market mechanisms like the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC) to ensure that the utilization of natural resources is sustainable. We see the private sector as a critical partner in these endeavours, as well as those governments and individuals willing to take courageous decisions in support of the environment.

None of the successes listed above would have been possible without the help and support of the many thousands of donors, supporters, collaborators and partners who have worked with and helped WWF in a myriad of different ways over the past year. To all of you we are immensely grateful. With your continued help we will persevere in our efforts to save as much as we can for future generations.

Chris Hails
Programme Director
WWF International

WWF / Chris Martin Bahr

African elephants – see page 48. WWF-Canon / Martin Harvey

WWF's Global Conservation Priorities

Since its inception in 1961, WWF has worked 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. Over the course of its 41-year history, WWF has contributed significantly to the development and impact of the world conservation movement and to sustainable development in a period of great pressure on the world's natural resources.

It is clear that no single organization can claim to credibly cover the entire conservation agenda. In setting WWF's agenda for the 21st century, during which the quest for natural resources will become even greater, it is essential that WWF sets clear priorities for its work. Those priorities, and the ways in which WWF is addressing them, are described here.

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.

WWF's Purpose

WWF's Purpose, as laid down in its Statutes, first established in 1961 and slightly modified in 1993, is "to conserve the natural environment and ecological processes worldwide". This is taken to include fauna and flora, the landscape, water, soils, air and other natural resources, with particular emphasis on the maintenance of essential ecological processes and life support systems, and on the preservation of genetic, species and ecosystem diversity, and on ensuring that the utilization of wild plant and animal species and natural ecosystems is sustainable.

To further tighten and focus its institutional forces, in 1989 WWF adopted a Mission Statement and seven Guiding Principles. The mission clearly recognizes that WWF's aims cannot be achieved without taking into account the underlying causes of environmental degradation.

Mission Statement

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.

Guiding Principles

To guide WWF in its task of achieving the mission goals, the following principles have been adopted. WWF will:

- be global, independent, multicultural and non-party political
- use the best available scientific information to address issues and critically evaluate all its endeavours
- seek dialogue and avoid unnecessary confrontation
- build concrete conservation solutions through a combination of field-based projects, policy initiatives, capacity building and education work
- involve local communities and indigenous peoples in the planning and execution of its field programmes, respecting their cultural as well as economic needs
- strive to build partnerships with other organizations, governments, business and local communities to enhance WWF's effectiveness
- run its operations in a cost-effective manner and apply donors' funds according to the highest standards of accountability.

What and Where?

To maximize its impact, WWF has identified a set of global priorities for its work. These priorities cover six globally important issues, allied to some of the most important places in the world for biodiversity conservation (termed "ecoregions"), where WWF will apply its effort and support.

The Six Global Issues

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 a programme with clear conservation targets that identify those actions required for WWF to achieve its ambitious mission. The programmes are hosted by various parts of the WWF Network (currently the WWF International Secretariat in Gland, Switzerland, WWF-Netherlands, WWF-UK, and WWF-US) and work in a coordinated fashion with WWF offices and Ecoregion Action Programmes across the world.

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". In 1997, WWF embarked on ecoregion conservation as a response to the increased pace of degradation of the world's endangered habitats and species.

To begin with, WWF 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 on page 12 or visit http://www.panda.org/global200/pages/mainmap.htm).

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 forever if they are not conserved.

Beluga whale.
WWF-Canon / Kevin Schafer

The WWF Network

WWF is a network organization with almost 5 million regular supporters, over 50 country or regional offices and 4 Associate Organizations, led and coordinated by an International Secretariat in Gland, Switzerland. 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. In the 2001 financial year WWF channelled more than CHF400 million into conservation solutions.

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 take up the challenges of conserving the rest of the Global 200 ecoregions.

Relationship between the Global Issues and the Global 200 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 freshwater is used in agriculture, will support the conservation of ecoregions. Global advocacy campaigns will help to create the appropriate political and policy context to enhance the chances of conservation success in the 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. As we learn more about the root causes of biodiversity loss in the ecoregions, so this will inform the policy work that is carried out for the six global issues.

Delivering Conservation – How?

Target Driven Programmes

A Target Driven Programme (TDP) is the delivery mechanism for focused and targeted work on one of the global priority issues central to WWF's mission. TDP activities are aimed at policy change, introduced either through existing instruments (e.g. conventions, legislation), market forces (e.g. certification, buyers groups), or voluntary commitments (e.g. Gifts to the Earth, Climate Savers). Issues lending themselves to the TDP approach typically are those where a short- to medium-term critical mass effort leads to a new level of conservation or magnification of its effects, such as the adoption of WWF's forest targets by the World Bank.

Each of the six TDPs focus on two or three global targets (see below), and lead WWF's effort to achieve those targets, also assuring appropriate links to Ecoregion Action Programmes.

The TDPs develop whatever strategies are needed to achieve their targets: for example, working the corridors of power (as on subsidies), seeking innovative partnerships such as those that led to the creation of the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC), or working to engage the public. Not all targets will necessarily be in the public eye – certain targets may be best addressed by a more political (less visible but still "high profile") approach and only emerge into the public arena at certain stages or when successfully completed. Other targets may be best addressed by highly visible activities, motivating and mobilizing the media and public opinion to achieve the targets.

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:

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

Freshwater is a precious resource, necessary for all life. Its future is far from secure. The failure of modern society to deal with water as a finite resource has led to the unnecessary destruction of rivers, lakes, marshes and other wetlands that provide a life support system for the planet. Globalization of trade and water privatization are now further adding to the demands on freshwater ecosystems.

WWF believes that healthy freshwater wetlands the world over will enhance the quality of life, but that 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:

- **Freshwater biodiversity:** By 2010, 250 million ha of high-priority freshwater ecosystems worldwide are protected and/or sustainably managed
- **Water infrastructure development:** By 2010, ecological processes are maintained or restored in at least 50 large catchment areas of high biodiversity importance
- **Resource use in water intensive products:** 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

The oceans cover 70 per cent of the Earth's surface. Acting as both the source of primordial life and the sink of material washed off the land, the sea is the life support system for the world. It contains a huge biodiversity, from the shallow coral reefs of the tropics to

Gifts to the Earth

A Gift to the Earth is WWF's highest accolade for the significant conservation work of others. It provides international recognition and support to a government, a company, or an individual. By August 2002, 77 Gifts had been recognized by WWF.

Queen conch shell.
WWF-Canon / Michel Roggo

cold, dark ocean trenches up to 11km deep. It is a transport route, playground, source of resources, means of livelihood, and a huge store of biodiversity – as well as being incomparably beautiful. Driving climate, supplying food and recycling some of our wastes, we damage it at our peril.

WWF believes that governments, communities, environmentalists, industries and other interest groups around the world must work closely together to keep and restore the treasures of the sea. We have to use oceans and coasts wisely for the benefit of current and future generations. Through a common understanding and admiration of natural richness and beauty, we must respect the idea that all marine life has a right to be and the space to survive.

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

Two global targets have been set:

- **Protected areas:** 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
- **Sustainable fisheries:** 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 FAO.

Species

The world's fauna and flora lie at the heart of WWF's mission to conserve biodiversity and the prime reason for the organization's establishment in 1961. 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 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. As flagships, they also provide unique opportunities for promoting and communicating important conservation and environmental issues.

Two global targets have been set:

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

The species and species groups which form the focus for target one are giant panda, tiger, rhinoceroses (black, white, Javan, Sumatran, and greater one horned), elephants (African and Asian), marine turtles (leatherback, hawksbill, green, loggerhead, olive ridley, and Kemp's ridley), great apes (gorilla, chimpanzee, bonobo, and orang-utan), and whales. Amongst the species included under target two are snow leopard, sturgeon, and Tibetan antelope.

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.

Climate Change

WWF's task is to protect nature from global climate change. By focusing on achieving a deep reduction in global carbon dioxide (CO_2) emissions, WWF expects to have triggered by 2030 a series of changes in society that will have transformed the supply and use of energy and raw materials compared to the beginning of the 21st century. This will need not only pressure from civil society, but also action by policy-makers, businesses and investors. By working together, catastrophic damage to ecosystems can yet be avoided.

The Intergovernmental Panel on Climate Change's most recent report documents more strongly than ever before the extreme and daunting impacts that climate change will have on wildlife, spelling extinction and vast changes for species such as polar bear, Bengal tiger, and amphibians. With increasing temperature ranges of 1.4–5.8˚C, it is clear that climate change poses an enormous threat to biodiversity and WWF's mission worldwide.

WWF's Climate Change Programme aims to ensure that industrialized nations achieve a permanent downward trend in their domestic emissions of CO_2 as a first step towards substantial reductions in emissions.

Three global targets have been set:

- **Emissions reductions:** By 2010, a 10 per cent reduction below 1990 emissions in industrialized country carbon dioxide emissions

- **Solutions:** 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

- **National plans and strategies:** 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.

Toxic Chemicals

Wildlife, people, and ecosystems are threatened by pervasive and global chemical contamination. WWF is working to reduce and eliminate the world's most dangerous industrial chemicals and pesticides while simultaneously promoting increased understanding, regulation of, and alternatives to 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 Toxics 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:

Nile crocodiles.
WWF / Martin Harvey

- **Elimination:** 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)

- **Informed decision-making:** 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.

Cross-cutting issues

There are a number of issues that cut across the work being carried out by WWF's Target Driven Programmes and Ecoregion Action Programmes. These include matters such as trade and investment (e.g. World Trade Organization rules), indigenous and traditional peoples (e.g intellectual property rights), national implementation of treaties such as the Convention on Biological Diversity, as well as the impacts of tourism. WWF will focus on those cross-cutting issues, including newly emerging topics, that directly affect programmatic and ecoregional work. Particular attention will be paid to the root causes of biodiversity loss, such as poverty, migration, macroeconomic policies, and poor enforcement of environmental legislation.

The TDP approach

Seven important features for Target Driven Programmes have been developed in the light of lessons learned over six years from WWF's first international campaigns and underscored by the early experiences of the Ecoregion Action Programmes.

1. Focused targets – targets focus effort and bring results
Targets have proved to be extremely effective tools in achieving conservation goals. The campaigning approach has demonstrated that setting targets builds momentum and helps us focus our effort.

2. Flexible strategy – flexibility in strategy and tactics allows timely action
TDPs need to be flexible in their strategy and tactics in order to respond effectively to political and media opportunities and threats in a fast-changing world. This means they should not be over-planned.

3. Effective communications – policy advocacy needs potent communications strategies
Effective internal and external communications need to accompany the policy goals. Communications is a tool for achieving targets, not just for highlighting successes.

4. Regular reporting and accountability – reporting and accountability measures and a steering group with high-level composition
The "project" approach is central to the TDP management process. This approach uses results-orientated monitoring with timetables and check points and has proven extremely useful to ensure delivery. Full accountability, to one Steering Group, mandated by the WWF Network, is also vital.

5. Strong leadership and entrepreneurship – strong staff leadership with entrepreneurial skill, rather than management by committee
TDPs are effective only when led by a capable director who has credibility with the WWF Network. The director should be a good spokesperson and have the ability to carry things through without too much friction. He/she should also have a good eye for campaigning opportunities.

6. Firm funding and financial accountability – established funding commitments for a set term accompanied by fiscal responsibility and oversight
TDPs need a multiple-year funding guarantee and budgeting flexibility in order to use opportunities to their maximum.

7. Monitoring and lesson learning – innovation needs constant learning and adaptation
Monitoring progress against the overall goal is essential. Targets have been selected to help move towards one overarching goal. The TDP must ensure it remains outward looking and monitors not only the progress towards the chosen targets, but also the continuing relevance and priority of those targets in a fast-moving world.

Underpinning the TDP approach is the need for institutional support and capacity building both to enable the TDPs to act effectively and to empower staff in key areas of the WWF Network to play an effective part in their delivery.

Coral reef in the Turtle Islands, Philippines.
WWF-Canon / Jürgen Freund

Ecoregion Action Programmes

In addition to the six Target Driven Programmes outlined above, WWF has identified and chosen to work in a subset of individual or combined ecoregions, for each of which an Ecoregion Action Programme (EAP) will be formulated. An EAP is an ambitious, broad-scale, integrated approach that aims to conserve and, where necessary, restore the biological diversity of an entire ecoregion. This does not mean that every individual of every species must be protected, rather that WWF's strategies and actions work toward achieving the broad goals of biodiversity conservation:

- **Representation** of all native habitat types and plant and animal communities across their natural range of variation
- **Resilience** of ecosystems and species to short- and long-term environmental change
- **Viable populations** of all native species in natural patterns of abundance and distribution
- **Healthy ecological and evolutionary processes** such as disturbance regimes, hydrological processes, nutrient cycles, and biotic interactions, including predation.

Using current information, and in conjunction with partners, each EAP establishes 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 address the full range of socio-economic change necessary within the ecoregion and also in some cases contribute to the achievement of the global TDP targets. This latter feature – creating synergy between ecoregion and TDP work – is where WWF will maximize its impact and institutional efficiency and make most progress. Examples of how it can be done are found in the pages of this report.

Ecoregions as a unit for conservation action

Ecoregions are defined in biological terms and, as such, are logical units for conserving biodiversity. By moving from sites defined geographically or politically to biologically defined ecoregions, WWF can better assess what is necessary to maintain the full array of biodiversity – species, communities, ecosystems, and ecological processes. An ecoregional approach helps ensure that we do not overlook areas that are particularly unique or threatened, allowing for smarter trade-offs and greater positive impacts that are more likely to endure over time.

Because ecoregions often transcend political boundaries, managers, decision-makers, and other constituents, including in particular civil society (e.g. community groups, non-governmental organizations, labour unions), must enlarge their thinking and planning to act beyond their own borders. Whether an ecoregion is made up of forests, grasslands, rivers and streams, or marine and coastal zones, the people who live in an ecoregion often share a common relationship with the land, water, and their other natural resources. By encouraging ecoregional thinking, there is a greater chance that large-scale ecological processes will be recognized and maintained.

The principles which outline the rationale of ecoregion conservation (see opposite) are those which guide and direct WWF's Ecoregion Action Plans (EAP). EAPs 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. It is in these common areas that the EAPs and the TDPs will interrelate most, working together, as well as with external partners, to achieve common goals.

Ecoregion conservation requires a careful balance of analysis, planning, and action, thinking differently, and exploring and understanding the linkages between social and biological factors. This interplay between understanding and action will better enable WWF and all parties in an EAP to secure conservation gains and complementary economic and social development successes over the short and long term.

Based on the need to think and act differently, with broader visions, larger scales, longer time horizons, and greater impact, WWF has defined a set of simple features of ecoregion conservation, developed and refined by ecoregion conservation practitioners, based on their experience in the field.

- The fundamental goal of ecoregion conservation is to conserve and, where necessary, restore the full range of an ecoregion's biodiversity: genes, species, communities, ecosystems, and ecological phenomena must be conserved on a scale that ensures their integrity and long-term survival
- Human development needs must be reconciled with conservation actions: ecoregional scales of planning and action require a thorough understanding of the interactions between social, economic, and ecological factors
- Emphasis must be given to collaboration and developing partnerships: partnerships among institutions and individuals are vital for getting the best input and broadest commitment to programme design and implementation, and to ensure that scarce resources are efficiently applied
- Adapting through learning: putting experience into practice: continuous reshaping of actions and strategies based on previous lessons and experience and on emerging information and new tools for conservation management.

Ecoregions defined

WWF defines an ecoregion as a "large unit of land or water containing a geographically distinct assemblage of species, natural communities, and environmental conditions". The boundaries of an ecoregion are not fixed and sharp, but rather encompass an area within which important ecological and evolutionary processes most strongly interact.

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 bold, engaging and ambitious vision for an ecoregion in order to set directions and arouse support. This vision should contain an inspirational message to motivate and engage stakeholders and partners.

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.

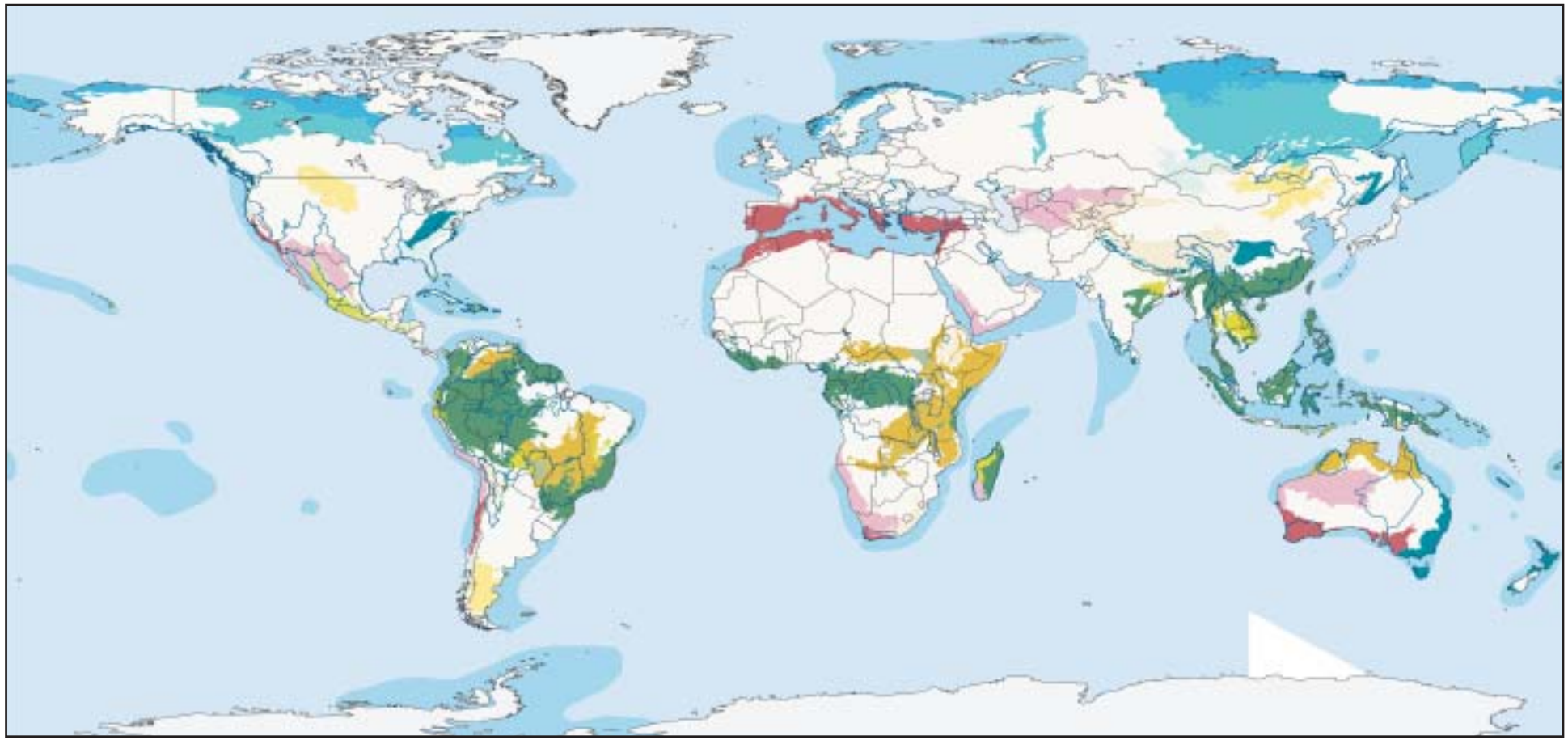
11. Clear objectives and precise conservation targets are needed to guide, focus and monitor progress.

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.

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}

Sustainable development, poverty and the environment: a challenge to the global community

The World Summit on Sustainable Development (WSSD) in Johannesburg in August 2002 gave the world community the opportunity to assess progress in addressing sustainable development and to agree priority issues for the future. It took place ten years on from the UN Conference on Environment and Development (UNCED) in Rio de Janeiro which called for sustainable development “to ensure socially responsible economic development while protecting the resource base and the environment for the benefit of future generations”.

WWF defines sustainable development as that which is economically viable, socially acceptable and environmentally sound. Development is not sustainable if it does not integrate all three elements. This requires changes in business practices and lifestyles, as well as the adoption of environmental and social standards to stay within the limits of available resources. WWF believes that sufficient technical knowledge exists to achieve sustainable development. Political will and appropriate incentives are required to convert the ideals into practical action.

In preparing for the WSSD, governments, UN institutions and development agencies focused on economic well-being by targeting poverty alleviation as the overriding concern in achieving sustainable development. While this was both welcome and necessary, and provided the opportunity to embed this firmly in the sustainable development agenda, WWF argued that the other two pillars of sustainable development must also be strengthened in the process.

WWF and other organizations working within the sustainable development arena issued an appeal to those attending the WSSD to build on previous analyses and conclusions, not least the considerable preparations for UNCED, and to reaffirm and strengthen the global view that sustainable development is the only option for a viable future.

Success in this quest for sustainability requires the joint efforts of three sectors:

- **National and local governments**, supported by international instruments that provide standards, incentives, and regulations
- **The private sector**, whose new freedoms resulting from globalization place the responsibility of informed stewardship squarely on their operations
- **Civil society**, whose pressure and support can ensure that the public interest is being well served.

The challenge ahead lies in enabling the three sectors to work harmoniously together, each providing checks and balances on the others and recognizing their mutually supporting roles in achieving sustainable development.

Forests

CHRIS ELLIOTT, Director of the Forests for Life Programme, provides an overview of WWF's efforts to conserve the world's forests.

WWF adopts an integrated approach to forest conservation which can be characterized by 'protect, manage, restore'. Forest protection has always been a priority for WWF, but we also recognize that as many as 90 per cent of the 1.2 billion people in the world who live in extreme poverty depend on forests for a variety of goods and services. Trade in wood and wood products is also an important source of income for many countries, and many forests will thus continue to be used to satisfy the needs of local communities as well as international markets. Conservationists should therefore identify and promote ways in which these forests can be well managed. In addition, in some parts of the world forests are highly degraded and must be restored if they are to provide benefits for people and nature.

Some significant conservation successes have been recorded during the past 18 months. Over 17 million ha of new forest protected areas have been established. In addition to promoting the creation of new protected areas, we are also pressing for improvements in the management of existing protected areas – to overcome the phenomenon known as "paper parks". In collaboration with the World Bank, management effectiveness has been assessed in 70 million ha of parks using a new methodology developed by WWF.

In the same period, the amount of FSC-certified forests increased by 4 million ha. A major new partnership was established with IKEA to promote certification in China, the Baltic States, Bulgaria, Romania, and Russia. New Forest and Trade Networks of companies committed to sourcing certified wood products have been established in Central America, Hong Kong and Japan.

Forest landscape restoration began to get underway with an international meeting in Costa Rica, co-hosted with the IUCN Forest Programme, with funding from the Korean and UK governments. The results of this international workshop were brought to the second session of the United Nations Forum on Forests in New York where numerous governments expressed support for the restoration of forest landscapes. Far more than simple tree planting, 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.

In the coming year, WWF will be launching a major new international campaign on illegal logging and forest crime, which is not only a serious threat to forest conservation, but also often deprives local communities and national economies of much-needed revenue. We will focus on encouraging the G8 countries and China to adopt timber procurement, aid and trade policies which help to reduce illegal logging in exporting countries.

We have chosen a few key ecoregions around the world where we can work with WWF conservationists and others to implement our integrated approach to forest conservation, adding value to ongoing activities in an innovative manner. The South-West Amazon, Western Congo Basin and the Forests of the Upper Yangtze in China are prime prospects in this regard.

By 2003, we should be seeing significant implementation of the pledge made in 1997 by President Cardoso of Brazil to protect 10 per cent of the country's forests. Preparation and planning to implement

Boreal forest and wetlands in Lenskie Stolby National Nature Park, Sakha Republic, Russia.
WWF-Canon / Hartmut Jungius

this pledge has been underway for some time in Brazil, and WWF has also been active at the international level in collaboration with the Global Environmental Facility (GEF), the World Bank, and private foundations in the United States to raise funds to assist the Brazilian government to set up and manage the new protected areas.

A main focus of WWF in 2003 will be the reduction of illegally logged timber reaching western markets. Studies of trade flows from Russia to Western Europe, Japan and China will highlight the amount of timber from dubious sources crossing Russian borders. In addition, WWF wants to ensure that protected forest areas will also be managed effectively; a system of identifying management effectiveness has already been put into practice and is currently being evaluated in Russia. WWF will be using the results to assist governments and protected area managers to identify priorities.

Targets and examples of progress in 2002

Protecting forests: By 2010, the establishment and maintenance of viable, representative networks of protected areas in the world's threatened and most biologically significant forest regions.

- 17.4 million ha of new forest protected areas established in Russia, Georgia, Croatia, Tunisia, Brazil, Mexico, Peru, Tanzania, Gabon, and Cameroon.

Managing forests: By 2005, 100 million ha of certified forests, distributed in a balanced manner among regions, forest types and land tenure regimes.

- 4 million ha of forests placed under Forest Stewardship Council management standards in a number of countries, including Bolivia, Mexico, and Colombia
- New Forest and Trade Networks promoting forest conservation in Japan, Hong Kong, and Central America.

Restoring forests: 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.

- Wide governmental support won for the concept of Forest Landscape Restoration
- Forest restoration projects underway in Malaysia, China, Brazil, and Bulgaria.

Africa and Madagascar

WWF is focusing its forest conservation efforts in Africa and Madagascar on establishment of new protected areas and improved management of existing ones, sustainable utilization of forest resources, and better opportunities for local people to have a central role in managing protected areas. This approach is being developed in a number of ecoregions, including the Western Congo Basin Moist Forests, Guinean Moist Forests, Eastern African Coastal Forests, Miombo Woodlands (see opposite), the Fynbos, and the Spiny Forest of Madagascar.

An increasingly important aspect of forest conservation is assessing the effectiveness of protected area management, for which WWF and the World Commission on Protected Areas (WCPA) have developed a means of testing. During 2002, assessments were carried out in three forest reserves in both Côte d'Ivoire and Ghana, with further assessments done in Lobeke National Park in Cameroon, the Minkebe Forests of Gabon, and the Ithala Game Reserve in South Africa. WWF will use the results to recommend improvements where necessary.

Forest protected areas supported in 2002 include Taï National Park in Côte d'Ivoire, Lobeke in Cameroon, Dzanga Sangha in Central African Republic, Gamba and Minkebe in Gabon, Udzungwa in Tanzania, Virunga in the Democratic Republic of Congo (DRC), and the Zombitse-Vohibasia and Andringitra National Parks in Madagascar.

Despite ongoing instability in the DRC, WWF continues to work in and around Virunga National Park. A community-run greenbelt plantation, where over 170,000 tree seedlings have been planted, has increased forest cover over a 20km stretch of the park's buffer zone. WWF also assisted in the negotiated removal of illegal settlers

Conserving ecoregions – Miombo, Africa

The Miombo ecoregion, covering 3.5 million square kilometres across ten countries of southern Africa (Angola, Botswana, Democratic Republic of Congo, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe), comprises dry and moist woodlands that support some of the most important mammal populations left in Africa. Among threatened animals are black rhino, African elephant, African hunting dog, cheetah and the slender-nosed crocodile, along with many lesser known plants, birds, reptiles, fish, and insects. More than half of the estimated 8,500 plant species in Miombo are found nowhere else on Earth.

The biggest threat to Miombo wildlife is the large and rapidly growing human population and its demand for agricultural land. Many rural people depend heavily on natural resources for their livelihoods. This has led to community-based natural resource management programmes and the establishment of conservancies – bodies charged with the preservation of environmental resources – across southern Africa. These are now yielding significant benefits for nature and people, with profits ploughed back into the community, such as through provision of grants to local schools.

WWF's long-term vision for Miombo is "a biologically diverse and ecologically functional ecoregion that meets and sustains human needs and development through the sustainable use of natural resources, landscapes, species and environmental processes". For WWF, wildlife conservation is inextricably linked to human development and livelihood issues.

African hunting dog.
WWF-Canon / Frederick J Weyerhaeuser

Green tree python from the rainforests of Australia.
WWF / Martin Harvey

from the park through financial and technical support to a joint commission set up in Goma to delineate the park's boundaries.

In Tanzania, WWF is working in partnership with the Tanzanian National Parks authority to conserve the rich biodiversity of the Udzungwa Mountains National Park. Highlights in 2002 included approval of the Park's management plan, further development of facilities within the park and, in conjunction with local communities, creation of alternative income-generating activities. Several tree nurseries were established, with over 15,000 trees planted, and a number of animal husbandry projects were undertaken by women's groups. A new 8,050ha National Forest Reserve, Namekutwa-Nyamuetta, was designated under the WWF-supported Lowland Coastal Forest project.

Better protection of forests by encouraging participation of local people in their management has helped conserve Andringitra National Park in Madagascar. Successful fire risk management has led to much higher species diversity, in particular among orchids. In addition, keeping numbers of cattle within the carrying capacity of pasture areas has helped to reduce habitat degradation. Elsewhere, despite a profusion of sapphire mines and the settlement of over 200,000 miners around the periphery of the Zombitse-Vohibasia National Park, the park has so far retained its natural characteristics.

The major focus of WWF's work to promote sustainable use of forest resources lies in Central Africa. In Cameroon, WWF helped to formulate legislation and develop partnerships with local communities and the private sector to control the rapidly expanding bushmeat trade. Helpful in this regard was the signing of an accord with the national railroad transporters, which, amongst other things, placed a ban on the transportation of wild meat and other animal products.

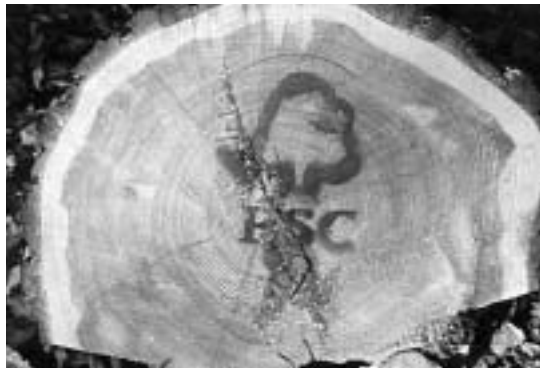
In Madagascar, national standards for sustainable forest management, developed under the WWF/World Bank alliance, were endorsed by the government. The new standards will help the country's Forest Service to improve monitoring of private logging operations and will give private enterprises clear guidelines on what is expected of them.

WWF has become a leader in community-based forest management in Madagascar. Agreements have been signed with nine villages to transfer management responsibility to them for around 3,000ha of forests in Antsiraka, Tolongoina, and Tsitongambarika districts. Similarly in Cameroon, WWF has worked with the government to create a system that will give local communities more control over management of forests and wildlife. The government has also formally recognized Community Managed Hunting Zones as a category of managed forest. Five such zones, covering approximately 300,000ha of forest, have been designated by the government.

Asia and the Pacific

Forest conservation, particularly the creation of protected areas, continues to be the largest single area of focus for WWF in the Asia/Pacific region, with a growing emphasis on forest certification and restoration.
A major effort is underway to reduce the European "footprint" on Asian forests by engaging with the edible oils sector in sustainable forest management. Much of this work is taking place in Indonesia and Malaysia, where forest loss through conversion for oil palm plantations is being tackled by developing partnerships and entering into discussion with industry leaders (see under Europe and the Middle East, page 20).

Major achievements in forest conservation have come in Indonesia, where the problem of illegal logging



Forest certification under the FSC reached 28 million ha during 2002.
WWF-Austria

has been recognized by the national government as a high priority and has led to crack-downs on corrupt officials. At a national level, the World Bank and WWF have assisted with the formation of the Forest Law, Enforcement and Governance network. WWF has also influenced legal decisions by local administrations favouring sustainable forestry practices. One decree forbids exploitation of resources in Wasur National Park, while in Lombok, a WWF proposal for introducing alternative land use and natural resource management planning was accepted by the province's governor.

Despite these successes, Indonesia still presents some of the biggest forest conservation challenges. For example, WWF is campaigning vigorously to save the last remaining patch of viable habitat for the Sumatran elephant in the tropical forest of Tesso Nilo. A survey by WWF scientists found that the area harbours the highest density of lowland forest plants known to science: up to 218 species were recorded in a single 200 square metre plot – nearly twice as high as similar forests elsewhere in the world. However, WWF has warned that Tesso Nilo's natural riches could be lost within four years if logging of the forest continues at the present rate. Satellite images show Tesso Nilo standing out like a green ark in a sea of clear-cut forests and plantations. Heavy logging for timber and pulp by small-scale illegal loggers and an international corporation is having devastating effects on both plant and animal life. Working on the ground to prevent further damage, WWF is pressing the government to declare Tesso Nilo a protected area.

Elsewhere in the region, all logging of old-growth and high value conservation forest has been halted in Western Australia,. This followed a WWF campaign to influence the environmental policies of mainstream political parties in the lead up to the 2001 election. Australia has also successfully pioneered a number of private conservation efforts, including conservation agreements setting aside land for nature conservation.

In China's Baimaxueshan region, four villages testing collective forestry schemes have succeeded in eliminating illegal cutting of forests. In Nepal, community forests established in and around Bardia, Shey Phoksundo, Dhorpatan and Kangchengjunga National Parks are benefiting 2,600 households and easing pressure on the parks' natural resources. In Malaysia, too, forest reserves are being successfully placed under community management.

Certification of forests has surged with the launching in March 2002 of two Forest and Trade Networks (FTN). The East Asian FTN – EcoWood@sia – covers Hong Kong, China, Taiwan and South Korea, collectively among the world's heaviest timber importers and consumers. The Japanese FTN is known locally as WWF Sanshoukai – meaning "group of smiling mountains". Its members are drawn from various sectors including forest owners and managers, paper mills, timber processors, furniture designers and manufactures, architects, and forest product wholesalers and retailers.

In-country promotion of certification also gained momentum during 2002. China established a national working group, with one timber-consuming company committing to join EcoWood@sia and another 20 users expressing interest. Seventeen companies received FSC "chain of custody" certification. New Zealand's newly established national working group on certification received staunch support from the country's timber supply industry, once a major opponent of certification. The industry now sees it as a means to meet growing overseas demand for certified wood. In Vietnam, WWF helped the national working group develop criteria and indicators compatible with those of the

FSC for assessing proper management of the country's forests. And Laos could soon see its first certified forests under a new FINNIDA-funded project. Initially, the aim is to certify 20,000ha of forests in Khammouane and Savannakhet provinces, managed by village associations; in time, this should expand to 100,000ha.

In April 2002, the Indonesian and UK governments signed a ground-breaking agreement to tackle illegal logging and illegal international trade in timber and wood products. This is the first time that two governments have committed to reforming legislation and developing systems to prevent the harvesting, export, and trade of illegal timber. On the horizon is a study of China's timber consumption, the report on which is expected to include recommendations for ameliorating the impact of the growing demand for timber.

Forest restoration projects got underway in Malaysia, Nepal, and Pakistan. In Indonesia, the principles, criteria and indicators for forest landscape restoration were considered by the Ministry of Forestry, which then issued a decree on forest rehabilitation. In India, a pilot project is underway to restore degraded forest corridors in the Terai Arc landscape in the eastern Himalayas. WWF-India is also working on joint forest management with local communities in three states.

And in Australia, a patch of rainforest managed under WWF's highly successful Rainforest Recovery Programme yielded a new plant species. Donated to the local council by a farmer as a public reserve more than 30 years ago, the site is also of prime conservation importance for the threatened black-breasted button-quail, the world's only rainforest quail.

Europe and the Middle East

Over the last 18 months, WWF has helped to increase significantly the size of FSC-certified forests in Europe and

The Global Forest and Trade Network

Consumers are increasingly demanding responsible business practices. As a result, investors such as pension funds and insurance companies are beginning to take account of social and environmental concerns. It is therefore in the forest industry's interests to adopt internationally recognized management standards. Companies that can demonstrate sound management of timber resources – by gaining the FSC certificate – can gain competitive advantage both in the financial markets and the product marketplace.

To promote greater levels of buy-in for independent certification, particularly from major companies in the forest industry, WWF helped establish the Global Forest and Trade Network (GFTN). The network is an alliance of environmental and social organizations and nearly 700 companies in 18 countries committed to producing, trading or purchasing certified timber and wood products. Its members, including forest owners, timber companies, processors of forest products, architects, construction companies, local authorities, and retailers of timber and paper goods, account for some 7 per cent of the world's industrial wood use.

Market demand for FSC-certified products is now well established and growing in Europe and North America, and increasing in Asia (in particular Japan, Hong Kong, and South Korea). However, with forest production spread throughout the world, the GFTN is looking to increase the area of certified forest across all forest types and to link certified suppliers to markets around the globe. To achieve this, particularly in large regions and less developed countries like Brazil, Russia, China and the Baltic states, Producers Groups – networks of timber suppliers – are now being established on each continent to promote the benefits of certification.

Together, the members of the GTFN are proving how the forest industry can be both sustainable and profitable, securing the health of forests worldwide for people, economies, and wildlife.

Giant river otters – amongst the Amazon's most spectacular wildlife.
WWF-Canon / Hartmut Jungius

secured further commitments from governments towards more responsible forest management, in particular in Central and Eastern European countries where most of Europe´s valuable forest resources exist.

By mid-2002, the area of FSC-certified forests had increased by 4 million ha to a global total of 28 million ha. Half of this increase came from new forest certifications in the Baltic states. Latvia and Estonia together now have approximately 2 million ha of forests certified to FSC management standards, mostly on public lands. Romania also expressed its commitment to work towards certifying 1 million ha over the next two years. These advances sent a strong signal to other timber-producing countries and for western buyers of FSC timber.

WWF has witnessed a significant increase in the certification of state-owned forests all over Europe, which indicates that governments are increasingly taking an active role in responsible forest management. Since July 2001, Finland, Liechtenstein, Slovakia, Lithuania and Ukraine have moved some of their forests under the FSC standard.

At the same time, European markets are becoming increasingly sensitive to the origins of timber. With the launch of the Italian FTN in late 2001, the number of Forest and Trade Networks in Europe has increased to 13, encompassing more than 400 companies committed to promoting responsible forest management and trade.

In April 2002, the French and German governments announced a change in their public timber procurement policies towards FSC-certified wood, following an earlier decision by the UK government. WWF now expects the European Union as a whole to make a clear decision on purchase of timber for use in the public domain.

WWF and IKEA, one of the world's largest home-furnishing companies, have embarked on a three-year partnership to promote responsible forestry. The two organizations will carry out a series of forest projects that will promote responsible forestry in Russia, China, Bulgaria, Romania, and the Baltic countries. These will include the development of a means for identifying and managing forests of high conservation value, and issues such as illegal logging and forest certification.

A paradigm shift in thinking about forest management has also been demonstrated by the Swedish company, Sveaskog. The state-owned company that recently purchased AssiDomän has committed to set aside 20 per cent of productive state forest land for nature conservation.

In an initiative begun in 2001, WWF is bringing together fieldwork across three continents to focus on the relationship between forest conversion for edible oil production and Europe as the biggest importer of palm oil and soy. The aim of the project, linking work in Indonesia, Malaysia, Brazil, Ghana, and Nigeria with market-oriented work in Europe, is to improve standards within the edible oil industry and influence investment decisions and trade policies. Palm oil and soy plantations are proliferating at the expense of natural forests, as well as polluting the environment through excessive use of pesticides. Already, four Dutch banks have made commitments to invest in forest and palm oil activities using sustainable practices, and the Swiss retailer Migros has committed to purchasing "ecologically-friendly" palm oil and is supporting a pilot test case in Ghana. Meanwhile, the Malaysian Palm Oil Association has invited WWF to join in policy dialogue.

Latin America and the Caribbean

Nearly 1 billion ha of natural forest blanket the Latin America and Caribbean (LAC) region. WWF

Conserving ecoregions – Amazonian Forests

Much of WWF's conservation work on forests is taking place in ecoregions. One of these lies in the Amazon jungles of South America, home to over half of the world's remaining tropical rainforest. At the heart of this still vast region is the Southwest Amazon Moist Forest ecoregion, almost 200 million ha of largely intact forest covering part of the western Brazilian states of Amazonas, Acre, and Rondonia, stretching into the lowlands of south-eastern Peru and north-western Bolivia. Among its abundant riches is an incredible array of trees, including the valuable big-leaf mahogany, as well as some of the continent's most spectacular wildlife, including jaguar, harpy eagle, and giant river otter.

Although 92 per cent of the original forested area still remains, the region faces numerous large-scale threats, such as road construction, illegal logging, gold mining, human settlement and agricultural expansion, and oil and gas exploration. Human populations remain relatively low, consisting mainly of indigenous tribespeople, river dwellers, Brazil nut gatherers, and rubber tappers. However, migrants from overpopulated and deforested regions of Bolivia, Brazil and Peru are moving into the region, converting forest into farm and pasture and threatening the traditional way of life.

The remoteness of most of the forest has insulated it from the worst development pressures so far, presenting a great opportunity for conservation. This opportunity, however, is fleeting and is tempered by rapidly increasing development plans in all three countries. WWF's efforts in the ecoregion are focusing on the creation of new protected areas and attaining effective management of existing ones, promotion of sustainable natural resource management, such as FSC certification of both timber and non-timber forest products and the establishment of community-managed forests, and support for policies that deal with the threats posed by oil and gas development and road construction.

continues to champion forest conservation from the dry forests of north-western Mexico's Chihuahuan Desert to the temperate rainforests of southern Chile and Argentina. However, this work is still challenged by agricultural expansion, cattle raising, unsustainable timber exploitation, and unsound infrastructure projects which threaten the integrity of the region's forests and their rich biodiversity.

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

WWF continues to be a leader in supporting and developing protected areas in the LAC region. Under the leadership of WWF-Brazil, the Amazon Region Protected Areas Project (ARPA) is becoming a reality. The first four-year phase of a ten-year project estimated at US$400 million is expected to be launched this year, financed by the Brazilian government, GEF, the German aid agency KFW, and WWF. ARPA will represent an achievement of global importance: 28.5 million ha of new protected areas and improved management of 12.5 million ha of existing parks and reserves.

Protected areas in Latin America, where many people live in or around forests and depend on forest products, require innovative approaches beyond traditional national parks. WWF has made substantial progress with respect to Community Protected Areas in Oaxaca, Mexico, and Private Reserves in Chile and Paraguay. In Colombia, WWF has played a crucial role in furthering the concept of private reserves and supporting the

establishment of seven new private reserves in the Central Andes. In December 2001, WWF, the World Bank, and the Colombian Ministry of the Environment signed a Memorandum of Understanding that will maximize the conservation potential of the three institutions.

WWF's office in Bolivia has provided project coordination for strengthening community certification efforts in Bolivia, Brazil, Colombia, Ecuador, Guatemala, and Mexico. Bolivia continues to lead the way in terms of certification of natural forests, with nearly 1 million ha of certified forests representing almost one-third of the LAC total of 3.5 million ha. The certification movement in Brazil is also gaining momentum. In 2002, Brazil passed the 1 million ha mark of FSC-certified forests. 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.

WWF has also been instrumental in developing a Forest and Trade Network to promote the marketing of certified products.

Forest landscape restoration has significant potential in the LAC region, especially in the Valdivian forests of Chile and Argentina, and in the Atlantic forests of Argentina, Brazil, and Paraguay. A first restoration initiative is taking form in the northern Andes of Ecuador, based on the use of the bamboo *Guadua angustifolia* for the protection of small river systems.

North America

In Canada, WWF sponsored and coordinated the development of FSC standards for the boreal forest of Ontario, convening a year-long process involving representatives of industry, environmentalists, First Nations and other groups. FSC will use the new standards in certification processes in other Canadian provinces.

Iisaak Forest Resources Ltd, jointly owned by a native people's organization and the global forestry giant Weyerhaeuser, received the FSC certificate for its sensitive forest management, including protected areas, throughout its 87,000ha Pacific coastal rainforest in Clayoquot Sound on Vancouver Island, British Colombia. Iisaak operates in an ecoregion of tremendous global interest and its accomplishment was recognized as a Gift to the Earth by WWF.

Westwind Forest Stewardship Inc., a not-for-profit community-based forest management company, earned the largest FSC certification to date in Canada for its 855,000ha parcel of public lands in Ontario's French-Severn Forest, which they manage under a license on behalf of the Ontario provincial government. Domtar Inc., one of Canada's largest and oldest forestry companies, earned its FSC chain-of-custody certificate for its Cornwall, Ontario paper mill, thereby re-establishing a supply of FSC-certified paper in North America. Wood supply to the mill comes from Domtar's private land operations in southern Ontario and New York state.

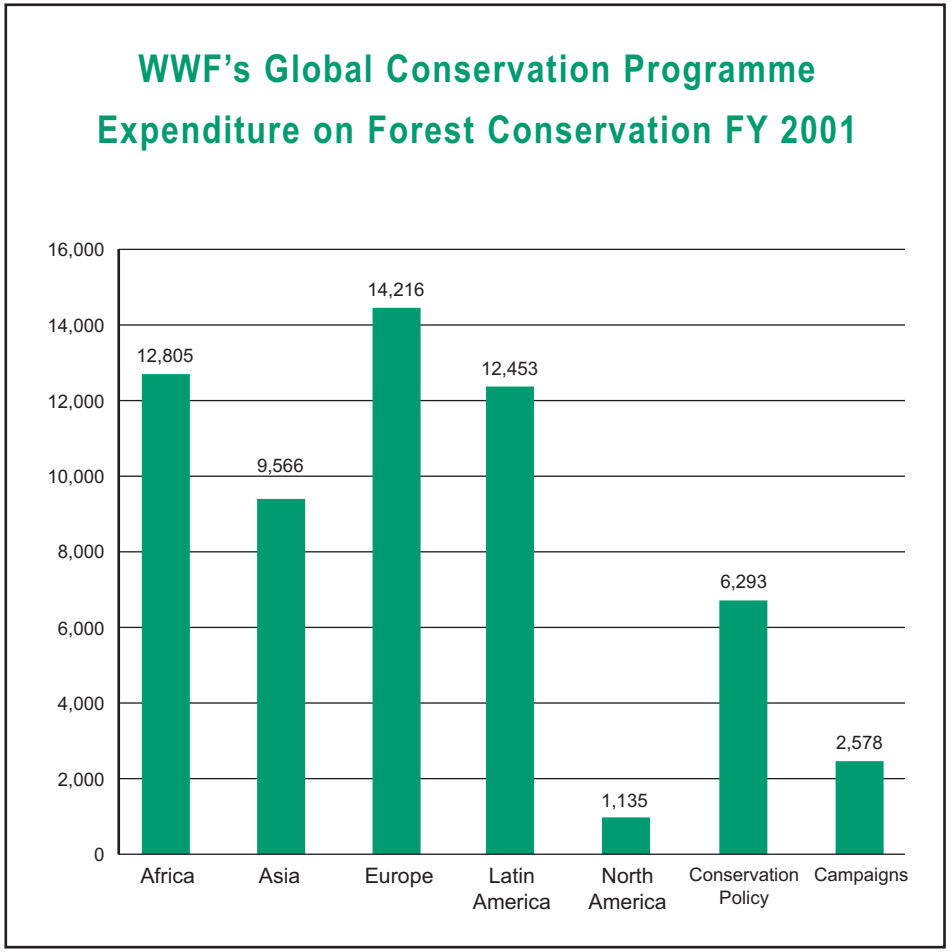
During the year, an assessment of forest fragmentation in the US was completed, including an analysis of the Klamath-Siskiyou ecoregion, where a campaign was undertaken to promote the use of FSC-certified timber and to certify one or two mills. Elsewhere, WWF defended the Cascade-Siskiyou National Monument in Oregon from government attempts to shrink its boundaries, and also started a process there to certify to FSC standards 4,000ha of private forest holdings. In the Southeast Rivers and Streams ecoregion, WWF worked to secure FSC certification of forest lands owned by the state of Tennessee and to encourage other public and private landowners to seek certification.

In April 2002, WWF co-hosted the Forest Leadership Forum in Atlanta,

Palm trees, bamboos and tree ferns in the Monteverde Cloud Forest Reserve, Costa Rica.
WWF-Canon / Michèle Dépraz

Georgia, bringing together 1,000 representatives from the environmental community and the forest products industry, and retailers and buyers from around the world. Issues covered included illegal logging, forests of high conservation value, responsible consumption, and certification.

Over the past year, 300,000ha of forest were certified under FSC in the US, bringing the country's total certified area to 3.4 million ha.



Freshwater

JAMIE PITTOCK, Director of the Living Waters Programme, looks back over the past year and previews WWF's freshwater work in 2003.

WWF's Living Waters Programme is dedicated to ensuring that freshwater ecosystems around the world are valued and conserved as a source of life for people and nature. Freshwater wetlands are among the richest wildlife habitats in the world – and also the most threatened. According to the 2002 *Living Planet Report*, WWF's periodic review of the state of the planet, freshwater species declined by some 55 per cent between 1970 and 2000 – a rate faster than wildlife loss in forests and oceans.

These alarming trends are reflected by increasing human suffering. Currently, 1.5 billion people lack ready access to clean drinking water and if current consumption patterns continue, at least 3.5 billion people – 48 per cent of the projected world population – will be living in water-stressed river basins within the next 25 years. Already, 2.5 billion people lack water sanitation, leading to widespread outbreaks of water-related disease and possibly as many as 10 million deaths annually.

WWF is tackling the conservation of freshwater ecosystems in three ways: establishing protected areas for the most important wetlands, conserving river basins – freshwater ecoregions – as the source of fresh water, and promoting more efficient use of water to increase the share for people and nature.

Working as a catalyst, WWF aims to see 250 million ha (about 20%) of the world's freshwater wetlands under strict protection. In partnership with the Ramsar Convention on Wetlands and in cooperation with the people and governments of many countries, such as Algeria, Bolivia, Chad, China, Cuba, Guinea, Peru, and Turkey, in excess of 18 million ha have been set aside for conservation – an area about half the size of The Netherlands. Exciting progress has also been achieved in managing many significant freshwater reserves for conservation, at the same time helping to develop sustainable livelihoods with local people, particularly in Algeria and China, and through a tri-national programme involving Australia, Indonesia and Papua New Guinea (see page 28).

Currently, WWF is working in 14 countries to protect a further 20 million ha of wetlands and enhance their management. In Africa, we are working with the Lake Chad Basin Commission and Niger Basin Authority, among others, using new protected areas as a catalyst for cooperation between governments to manage these critical river basin ecoregions as sustainably as possible.

Freshwater areas cannot be conserved by protection alone. All the land and waters upstream in the river basin need to be carefully managed to maintain adequate water quality and quantity. We have drawn together 34 WWF projects conserving river basin ecoregions to identify and raise the extra resources needed, and the lessons that can be shared to achieve conservation of river ecosystems. A WWF film on our conservation work on the Niger River won a Certificate of Merit at the prestigious Chicago International Television Competition in the Public Affairs/Video News Release category. We are using this platform to accelerate the complex task of bringing together governments and other stakeholders to conserve the most biologically important freshwater ecoregions. Examples are WWF's work in the Danube River basin that has been critical in bringing together conservation efforts in 13 countries, and the tri-national Morava-Dyje Floodplain initiative in Austria, the Czech Republic and the Slovak Republic (see page 30).

Mountain wetlands 3,600 metres high in the Ecuadorian Andes.
WWF-Canon / Kevin Schafer

Targets and examples of progress in 2002

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

- 18.4 million ha set aside for conservation, including in Algeria, Bolivia, Chad, China, Cuba, Guinea, Peru, and Turkey
- Memorandum of Understanding to manage 3 million ha of wetlands signed by the governments of Indonesia, Papua New Guinea and Australia at the fourth preparatory meeting in Bali in May for the World Summit on Sustainable Development.

Water infrastructure development: By 2010, ecological processes are maintained or restored in at least 50 large catchment areas of high biodiversity importance.

- Five-year, multi-million dollar agreement with HSBC to conserve four major river basins
- Options assessment completed according to World Commission on Dams guidelines, resulting in Polish government's decision to reconsider the need for more dams and to consider instead sustainable ways of addressing problems of the ageing Wloclawek dam.

Resource use in water intensive products: 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.

- A new partnership with an international drinks company to develop industry standards for minimizing water use and improving water quality.

WWF is also working to redirect environmentally disastrous development proposals into more socially and economically responsible alternatives. In particular, poorly planned dams cause immense environmental damage, including changing the quality and quantity of water in rivers and by fragmenting and destroying wildlife populations. A major push has commenced against the Spanish National Hydrological Plan, a massive inter-basin water transfer scheme requiring hundreds of dams and impacting on dozens of critical conservation areas (see under Europe and the Middle east below, and also page 29).

In February, a report on shipping along the Danube set out WWF's case against the proposed 'Trans European Network' of shipping channels in eastern Europe. An economic assessment was also published as a critique of the proposal for a massive south-north water transfer scheme in China. Following a WWF

commissioned assessment, we are making good progress in Poland in favour of abandoning the proposed Nieszawa Dam and decommissioning the Wlocalwek Dam on the Vistula River. And the World Bank's draft strategy on water resources was amended to partially reflect WWF's approach to implementing the recommendations of the World Commission on Dams.

In 2003, the Living Waters Programme will launch a new campaign on dams, seeking to redirect investment into ecologically, environmentally and socially beneficial alternatives to dams for provision of power and water. In other work, we will be seeking a better deal for people and nature by promoting more efficient use of the 87 per cent of fresh water used by the agricultural and industry sectors; an assessment of the most water-demanding crops will help us identify the most promising opportunities for change.

WWF is collaborating with a major drinks company to develop best practice standards for minimizing water use and improving water quality in manufacturing plants. And we have concluded a five-year agreement with HSBC for the conservation of four major river basins, including the Yangste and the Brazilian Amazon. This work will also develop practical guidance on how the financial sector can apply the recommendations of the World Commission on Dams and promote best practice in river basin management based on WWF's fieldwork experience. Lastly, as a partner with nine leading international water and agricultural organizations in the 'Dialogue on Food, Water and the Environment', WWF will be seeking agreement on solutions to the world's food, water and environmental needs in time for the 2006 World Water Forum.

WWF's biggest challenge in 2003 and beyond is to fight the mismanagement of water by finding and promoting innovative solutions that conserve freshwater wetlands and benefit people and wildlife.

Africa and Madagascar

WWF made significant progress in advancing some of the major wetland conservation initiatives started last year in Africa. Much of this work was aided by the commitment of African governments to wetland conservation – more than six million ha of new Ramsar sites were declared across the continent.

Among these wetland initiatives were efforts by the government of Tanzania to re-establish year-round water flows in the Great Ruaha River. Much of this involves better management of wetlands within the river's catchment, which WWF is promoting under the Great Ruaha River and Catchment Programme. Projects in Udzungwa and Kipingere are helping to protect the Ruaha's headwaters and secure water flows in numerous tributaries.

WWF has also initiated an ambitious programme for the Niger River, together with Wetlands International and the Nigerian Conservation Foundation. As with the Ruaha, a catchment approach is being adopted to conserve the Niger's wetland habitats and wildlife and to secure sustainable livelihoods for human populations that depend entirely on the river for survival.

The Lake Bogoria Community-based Wetlands Project in Kenya intensified its conservation work through closer ties with the peoples and councils of the Baringo and Koibatek communities. Some of the achievements resulting from these efforts include the establishment of environmental planning committees, an environmental education strategy, habitat and wildlife surveys, and installation of facilities for ecological monitoring.

In Tanzania, WWF worked with government and non-governmental

Water-lilies in the delta of the Danube River, Romania.
WWF-Canon / Michel Gunther

partners to focus public attention on the plight of Tanzania's wetlands. Efforts by the Journalists Environmental Association of Tanzania, with backing from WWF, brought wetland issues to the front pages of both Swahili and English language newspapers, as well as radio and television. Two new Ramsar sites were declared: Lake Natron Basin (224,781ha) and the Kilombero Valley Floodplain (796,735ha). In addition, the government established a broad-based wetlands working group with members drawn from government, civil society organizations, and the international community. WWF is also working with local NGOs on the conservation of Lake Manyara wetlands.

In South Africa, the Table Mountain Fund developed a partnership between the National Botanical Institute's Outreach Programme, the City of Cape Town and local Reconciliation and Development Forums that led to the creation of the Edith Stephens Wetlands Park. A fundraising campaign was launched to secure conservation of the Noordhoek Kommetjie wetlands – the missing piece in the consolidation of the Cape Peninsula National Park that will see the park attain World Heritage status.

In West Africa, WWF's Living Waters Programme lent its expertise to the designation of a suite of new Ramsar sites in the River Niger and Lake Chad basins. New protected wetlands amounted to 500,000ha in Niger, 1,650,000ha in Chad, and 4,500,000ha in Guinea. A new protected site, Mazabuka, covering 47,000ha, has been established in the Kafue Flats in Zambia. Further Ramsar designations are anticipated in the coming year in Cameroon, the Central African Republic, Madagascar, and Nigeria. Three potential Ramsar sites have also been identified in the Seychelles and agreement has been reached on a process for further designations once the government of Seychelles has ratified the Ramsar Convention.

Asia and the Pacific

The significance of the Asia/Pacific region's freshwater resources is matched by the significance of the problems facing them. Throughout the last year, WWF has concentrated on the establishment of new protected areas, wetland restoration, and management of river basins.

The year's biggest conservation achievement came with the Chinese government's designation, on World Wetlands Day, 2 February, of 14 wetlands totalling nearly 2 million ha as Ramsar sites. The government also pledged nearly US$1 billion over the next ten years for their management. The sites are located in the north-east of the country (five sites), along the Yangtze River (three sites), and at six coastal sites which include mangroves and valuable habitats for migratory birds, turtles and seals. WWF recognized the declaration as a Gift to the Earth and a major contribution to the WWF-supported China Action Plan for Wetland Conservation.

Another Gift to the Earth, the 26,000ha Kinabatangan Wildlife Sanctuary in Malaysia, received legal protection under the state of Sabah's Land Ordinance in recognition of its "outstanding" biological, cultural, and economic importance. Kinabatangan provides a refuge for several endangered species, among them orang-utan, proboscis monkey, and Asian elephant, as well as a vital

Black darter covered in morning dew.
WWF / Fritz Pölking

source of fresh water for over 200,000 people living in Sabah.

More good news came in June 2002 with the signing of the "Tri-national Wetlands Initiative" between Australia, Indonesia and Papua New Guinea. The agreement commits the three nations to work together to achieve sustainable management of 3 million ha of tropical wetlands within three existing protected areas, Kakadu National Park (Australia), Wasur National Park (Indonesia) and Tonda Wildlife Management Area (PNG). The initiative will greatly improve management of these parks and encourage the creation of further protected areas.

China again led the way with wetland restoration. Altogether, 1,650ha of wetlands were restored at three sites, including Qinshan polder, where the diversity of bird, fish and plant life has increased. With the advent of the new, multi-million dollar funding under the WWF-HSBC partnership, wetland restoration in China will continue to flourish. Other restoration efforts in the region include mangrove regeneration in India's Kumarakom Bird Sanctuary and management of wetland vegetation for waterbirds in Hong Kong. As a result of these efforts in Hong Kong, the endangered population of black-faced spoonbills has risen by 10 per cent since 1997, following a long period of decline. There are only about 600 of the birds left in the world and a conservation plan for the species is currently awaiting approval by the Hong Kong government.

WWF has also been successful in preventing incompatible or unsustainable development on wetlands in Hong Kong. For example, a revision in land use strengthened protection for the ecologically sensitive Tai Ho stream, one of Hong Kong's few remaining medium-sized natural streams known for its diversity of freshwater and brackish-water fish. Among 47 species of fish recorded there are some new for Hong Kong, such as the rare and migratory Ayu *Plecoglossus altivelis*, a relative of the salmon. And an application to develop Lut Chau – a Site of Special Scientific Interest comprising fish ponds with rich food sources for the thousands of migratory birds and nesting habitats for a number of species in the south of Mai Po Nature Reserve – was rejected by the Hong Kong Town Planning Board on the advice of WWF.

Progress in wetland management at the catchment level is a concept new to the Asia/Pacific region and has been slow to develop. Despite this, meetings were held with the Mekong River Commission and leading construction company ABB in Indochina to discuss possibilities of a partnership. And in the Murray Darling Basin in Australia, WWF has been prioritizing wetland sites and helping to develop a management plan and voluntary conservation agreement at Lake Dartmouth, as well as pressing the Commonwealth and State governments to adopt a "free-flowing" rivers agreement for the Murray-Darling and Queensland-Darling headwaters. Further progress on river basin management should increase once funding is secured for major programmes for the Mekong, and the Sepik in Papua New Guinea.

Europe and the Middle East

The EU Water Framework Directive – if implemented in a comprehensive and timely manner – has the potential to deliver sustainable use of water across Europe. The importance of this piece of legislation makes it a prime focus for WWF policy work in Europe over the coming year. The Directive, which came into force in December 2000, encourages transboundary river basin management and involves those countries seeking accession to the EU, such as Poland and Romania, and even non-EU countries such as Norway, Russia and Switzerland. It is, however, a complex piece of legislation. In the past twelve months, WWF has been helping to develop the Directive's

Common Implementation Strategy, participating in technical working groups and developing guidance documents on "best practice" for its implementation in EU and accession countries, taking into account on-the-ground practicalities.

In 2003, the European component of the Living Waters Programme will launch the "Water and Wetland Index – Phase 2", the follow-up to the index first released in 2000 which rates countries on their freshwater management performance. The new index will include Mongolia, Morocco and Russia.

WWF continues its action against the Spanish National Hydrological Plan, a conglomeration of 120 dams and 261 other supporting infrastructures being built to transfer water from the north of the country – mainly from the Ebro Delta – to the south. The plan is likely to have disastrous consequences for the delta and its human and wildlife inhabitants. WWF is pressing the EU

Conserving ecoregions – freshwater wetlands in the Mediterranean

WWF is working in 33 river basins (also known as watersheds or catchments), demonstrating solutions to water management problems. A prime example is WWF's freshwater work in the Mediterranean.

The pressures on fresh water in the Mediterranean are many and varied, not least from agriculture, tourism, and construction. Severe drought in the region, as the climate changes, have added to these pressures. To meet the growing demand for fresh water, a number of Mediterranean countries, such as Spain, Greece and Turkey, are developing plans to transfer water between river basins. Already, the diversion of water from the Segura River in Spain to irrigate fields and vast acreages of greenhouses has reduced the river to an ecological ruin, demonstrating the inadequacy of planning and overestimation of the water supply, and putting local economies, human livelihoods and wildlife at risk.

The Spanish National Hydrological Plan involves the building of 120 dams and 261 supporting infrastructures to aid transfer of water from the north of the country, mainly from the delta of the Ebro River, to the south. Just over half of the water is earmarked for intensive agriculture, and the remainder for tourism development. The total estimated cost is in excess of EUR22 million, of which the Spanish government is seeking almost EUR8 million from the EU. Such developments are totally at odds with EU attempts to reduce agricultural subsidies to bring food prices closer to world market levels.

Transfer of water at the volumes proposed will reduce the quality of drinking water for one million people in the Valencia region, and threaten the local fishing industry at the mouth of the Ebro, especially the port of Tarragona, as a result of reduced freshwater flows and increased sedimentation. From a wildlife point of view, the Ebro delta, a Ramsar site, is one of the most important areas for breeding birds in the Mediterranean and the third most important wetland in Spain.

WWF has taken an active stand against the development, both in Spain and across Europe, and is pressing hard for EU funds to be spent instead on social, economic and environmental improvements that are both balanced and sustainable. These include environmental actions that are in line with EU priorities, such as improved monitoring of water quality and promoting reductions in water consumption.

The Riba Roja dam on the Ebro River.
WWF-Spain

to reject the Spanish government's application for up to EUR8 billion to finance the scheme. WWF sees the plan in its current form as clearly contradicting EU laws, including the Habitats Directive and the Water Framework Directive. WWF has published a socio-economic critique of the plan and a report giving alternatives to it, and will continue to raise public awareness across Europe in attempts to halt the project (see previous page).

The 8th Conference of Parties to the Ramsar Convention on Wetlands, held in Valencia, Spain in November 2002, brought the opportunity to raise European freshwater issues, including cross-border cooperation on protected areas and the protection in particular of scarce alpine wetlands. Protected areas are also a focus in the Danube-Morava-Dyje Floodplains, for which a Memorandum of Understanding was signed by Austria, Czech Republic and Slovakia for designation of the floodplains as a trilateral Ramsar site –

Protecting the Morava-Dyje floodplain

The Danube is the second longest river in Europe and the source of drinking water for 20 million people. More than 80 per cent of the original Danube floodplain has been lost to engineering projects for navigation, irrigation and power generation. Pollution is also a major problem. WWF has been supporting the "Lower Danube Green Corridor" scheme, combining protection of 935,000ha of wetlands and restoration of 225,000ha and helping to reduce pollution, support freshwater fisheries, develop ecotourism opportunities, and conserve the river's biodiversity.

One example is the tri-national initiative for the Morava-Dyje floodplain, lying across the borders of Austria, the Czech Republic and the Slovak Republic, by WWF's Danube-Carpathian Programme and three partner NGOs. At the heart of this project lies the sustainable use and conservation of the natural and cultural heritage of the floodplains of the Morava and Dyje rivers. This riverine landscape is one of the last regions in Europe where traditional land use has secured a rich biodiversity. WWF and its partners brought together the Environment Ministries of the three countries to establish a body of expertise consisting of ministry representatives, water management institutions, national Ramsar committees, and NGOs to ensure collaborative management. In recognition of this achievement, WWF's Danube-Carpathian Programme was a co-recipient of the 2002 Ramsar Wetland Conservation Award. WWF's partners in the project are DAPHNE in the Slovak Republic, Distelverein in Austria, and Veronica in the Czech Republic.

The lower Morava River, close to its confluence with the Danube on the Slovak-Austrian border.
M Cierna / DAPHNE-Centre for Applied Ecology

potentially the third such initiative in Europe after the Wadden Sea (Denmark, Germany and The Netherlands) and Prespa Lake (Albania, Greece and FYR Macedonia). The Morava-Dyje floodplains support freshwater habitats, such as wet meadows and seasonally flooded forests, that were once common along European rivers but now sadly confined to a few remaining areas (see opposite).

Latin America and the Caribbean

With over 30 per cent of the world's available freshwater and some of the world's most biologically diverse rivers, the Latin America and Caribbean (LAC) region holds tremendous opportunities for freshwater conservation. River basin, or catchment, management is the most effective way to conserve freshwater wetlands, so it is not surprising that it is a key component in WWF's LAC freshwater strategy. Our capacity to address the problems facing wetlands is growing, as are the number of freshwater protected areas and Ramsar sites that WWF has helped to establish.

In Bolivia, WWF developed a means of identifying key wetlands within catchments so that management efforts could concentrate on the most important components of freshwater biodiversity. Applying the approach to the Bolivian Pantanal, WWF was able to produce a map and a report on the Correreca sub-catchment which eventually led to the declaration of more than 3 million ha of the Bolivian Pantanal as a Ramsar site. Another 1.4 million ha were declared a Ramsar site in the Chaco region.

In Venezuela, WWF is working with its associate FUDENA to develop a river basin model for the Orinoco, one of the six most biologically diverse rivers in the world. The model will be used to demonstrate the changes in flooding and flow patterns that can be expected if proposed infrastructure projects go forward, and the impacts that they would have on the Orinoco's resources and the communities that depend on them.

In Central America, WWF is helping the communities in the Mosquitia to form a Water Board to protect catchments important for drinking water. In Nicaragua, three new Ramsar sites have been designated. And in Colombia, WWF and its local partner, ADC (Asociación del Campesino), helped local communities to stop the construction of a dam in the La Cocha Ramsar site. The site's high Andean paramo wetlands are among the most unique and threatened wetlands in the world. WWF also played a significant role in the development of new national wetland conservation policies in Colombia.

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 Peru. Many rare and threatened aquatic species, including river otter, pink dolphin, and Amazonian manatee, thrive in this area. Numerous species of fish that make up an important part of the diet of local communities are also present in large numbers. As a result of efforts by WWF and partners, this year over 3.8 million ha of this ecoregion were designated under Ramsar.

In Brazil, WWF and other NGOs played an important role in blocking infrastructure projects along the Paraná-Paraguay River system. However, the cumulative impacts of minor improvement plans in navigation still pose threats in some places. WWF published a report drawing attention to erosion problems in riverbanks along the waterway caused by the impact of large barges transporting grain and minerals.

Several major activities for freshwater conservation in the LAC region for the

coming year are underway. WWF will continue to carry out technical studies for the designation of new Ramsar sites in the Amazon River and Flooded Forest ecoregion. In Colombia, the organization is proposing the establishment of new freshwater protected areas in the Chocó, Paramos (northern Andes) and Llanos. A river basin management programme between Colombia and Venezuela is working to mitigate or eliminate negative environmental impacts posed by development projects in two catchment areas of the Andes and the Llanos. Stopping the construction of the Guamez dam will protect rare mountain wetlands in the northern Andes. In Peru, WWF will continue to focus on road construction policies and practices as a major component of catchment management in the Marañon watershed, part of the Southwest Amazon ecoregion. This development is likely to lead to deforestation and subsequent sedimentation and loss of water within key wetlands.

North America

During the year, WWF stepped up efforts to conserve the vast, 200,000km^2 Canadian Arctic wilderness known as the Central Barrens. Part of this process involved securing the Thelon Game Sanctuary Management Plan, for which approval is still awaited.

In the US, work continued with government agencies and NGOs to improve water quality and fish passage on streams in the Klamath-Siskiyou ecoregion, including funding the removal of eight small dams on Sucker Creek, a tributary of the Illinois River in south-west Oregon. In the South Florida ecoregion, WWF worked with the Everglades Coalition to ensure full implementation of the historic Everglades restoration legislation, which provides for a 30-year, US$8 billion plan to restore the Everglades. WWF successfully convinced the governor of Tennessee to place a moratorium on gas-fired steam

Floodplain management the answer to flooding

As floodwaters rose in Europe and other parts of the world in 2002, WWF named climate change as one of the leading causes of the extreme weather events occurring more frequently around the globe. The way freshwater ecosystems are managed also plays a crucial role.

During the last 150 years, as rivers have been put into straightjackets of dams and dykes, floodplains have been drained on a massive scale to make way for agriculture and development. New housing, roads and infrastructure are constructed on the very areas which store floodwaters and help to reduce flood damage. As the natural capacity of rivers and adjoining wetlands for flood control grows ever smaller, so severe bad weather channels more water into unnaturally small spaces, leading to higher and more damaging flood peaks. Floods are also worse where overgrazing and deforestation in the watershed allows rainwater to run off faster into rivers. Forests and wetlands act as sponges, and when they are absent in times of heavy downpours, there is no absorption provided by nature to even out river flows. WWF is arguing that floods are best managed by working with nature, not fighting it.

The enormous economic and social cost of flooding could be prevented by recognizing the importance of floodplains and the need for sustainable management – as well as restoration – of these areas. The need for floodplain management has never been higher. WWF called on leaders gathering in Johannesburg for the World Summit on Sustainable Development in August to agree to better manage river basins as the key to ensuring freshwater resources and coping with floods. This went hand in hand with WWF's call for world leaders to agree on effective measures to combat climate change and to provide a sustainable energy future.

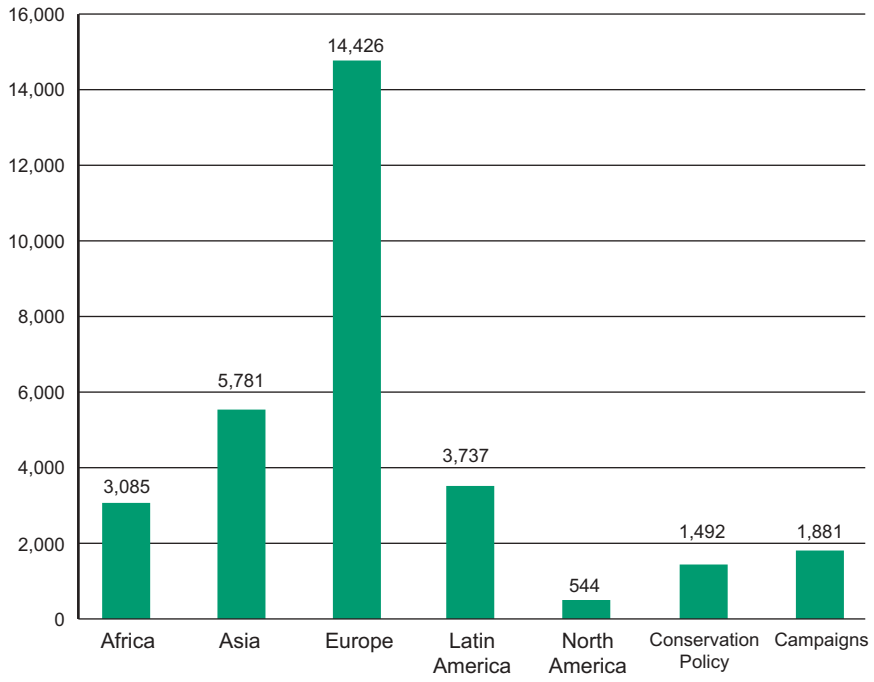
Channeling of rivers and urban development in floodplains, allied to climate change, are the main factors behind increasingly severe floods in many parts of the world.
WWF-Canon / Martin Harvey

generating plants, which consume millions of gallons of freshwater daily, returning only a fraction to rivers and streams.

Working with an alliance of cavers and environmental NGOs, WWF's Southeast Rivers and Streams ecoregion office funded a scientific study of the unique biodiversity of Rumble Falls cave, the second largest cavern in the US. National media coverage of the cave's discovery resulted in a halt to plans to discharge treated waste-water into the stream flowing through the cave.

In the Chihuahuan Desert, WWF and the Alliance for Rio Grande Heritage held the first multi-stakeholder workshop to develop a vision for the restoration of the heavily degraded Rio Grande/Rio Bravo. In addition, WWF launched a strategic planning process with the managers of six protected areas on the Rio Grande which should result in improved management for wildlife in over 1 million ha of river basin wetlands in the US and Mexico.

WWF's Global Conservation Programme
Expenditure on Freshwater Conservation FY 2001



Oceans and Coasts

SIMON CRIPPS, Director of the Endangered Seas Programme, highlights some of WWF's marine conservation efforts in 2002 and looks ahead to 2003.

The ocean is the natural environment for millions of species, but an array of human activities, including overfishing, insensitive coastal development, pollution and climate change, are causing a deepening crisis. Today, more than three-quarters of our seas are overexploited, threatening the long-term sustainability and survival of coastal communities across the entire globe.

To restore the balance in the use of marine and coastal areas, the Endangered Seas Programme is focusing on human activities threatening the oceans. We are helping to create new market incentives and penalties, influencing legislation and leadership, and applying pressure when appropriate. We are also encouraging industries to adopt practices which are both profitable for industry and beneficial to the marine environment.

Within a generation we aim to stop overfishing and ensure that all exploitation of fish stocks is sustainable. We are also working towards establishing networks of well-managed and ecologically representative marine protected areas covering at least ten per cent of the world's oceans, including the deep seas. Over the last year, good progress has been made in this direction.

About 75 per cent of the word's most valuable fish species are either overfished or fished to their limit. Too many boats are chasing too few fish, fish stocks are being mismanaged, and harmful subsidies are being paid to oversized fishing fleets. This abuse of the marine environment will ultimately destroy the fishing industry, the fish stocks and the environment itself. The European Union has one of the world's largest fishing fleets, which it subsidizes with about EUR1.4 billion each year. During 2002, the EU reviewed its Common Fisheries Policy (CFP). To influence the debate, in February 2002 WWF launched a high-profile campaign – the "Stop Overfishing" campaign – calling for far-reaching reforms to safeguard the future of fish stocks and fishing communities. It drew much political and public attention to the CFP and won extensive media coverage of the reform process.

WWF has welcomed the adoption by the world's shipping nations at the International Maritime Organization (IMO) of a convention to eliminate the dangerous chemicals used in paints on ships' hulls from the marine environment (see page 64).

The Regional Government of the Azores received a WWF Gift to the Earth certificate in recognition of its outstanding achievement to protect two deep-sea sites – made possible in large part due to intense lobbying by WWF. Situated on the sea-floor at depths of 850 and 1,700 metres, the two sites contain hydrothermal vents – chimney-like structures which eject seawater superheated to 350˚C – hosting a unique and fragile fauna in extreme environments. They play an important role in regulating the temperature and chemical balance of the oceans. Their protection is the first in a proposed network of deep-sea MPAs in the north-east Atlantic and sets an important precedent for future work on important offshore and deep-sea sites lying outside national jurisdiction. In addition, the management plan for the Azores sites will serve as a blueprint for future deep-sea MPAs.

Batangas Bay, in the Philippines, provides food security and income for many fishing communities and, home to one of the largest and most diverse coral reefs in the country, is a prime ecotourism site. It is also, however, the site of two major oil refineries. An oil

WWF's "Stop Overfishing" campaign called for far-reaching reforms to safeguard the future of fish stocks and fishing communities.
WWF-Canon / Kevin Schafer

spill in these waters would bring immediate and long-lasting suffering to the people and the environment in and around the bay. A viable solution to the quick containment of oil is seen as oil spill response teams comprised of local people. As part of efforts to address the issue of toxics in the marine environment, WWF organized the first ever community-based oils spill management training course. The course helped to broaden community understanding of the issue and emphasized the need to work together. Similar courses are planned in other regions of the world.

Targets and examples of progress in 2002

Protected areas: 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.

- The establishment of globally significant MPAs, including hydrothermal vents in Portugal (Azores), coral reefs in Mozambique, and the brackish Baltic waters of Finland
- Creation of the world's largest MPA at Heard Island and McDonald Islands Marine Reserve in Australia
- A commitment from the United Nations to look into the potential of creating MPAs in waters that lie outside national jurisdiction.

Sustainable fisheries: 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 FAO.

- As a key player in the EU fisheries policy reform process, WWF helped create media awareness, raise public interest, and develop a political climate essential for the success. The reform proposal now includes the ending of three of the most damaging subsidies: those for modernization, new vessels, and export of capacity outside EU waters
- The WTO committed to reform harmful fishing subsidies
- The world's largest wild salmon fishery in Alaska was certified by the Marine Stewardship Council
- The government of Mauritania has asked for greater environmental safeguards and fairer access rights in the fisheries agreement negotiated with the EU.

At the WSSD in Johannesburg, some progress was made with respect to the marine environment. In particular, participants agreed to reduce catches and restore heavily depleted fish stocks by 2015. Although this decision was less encompassing than the WWF target on fisheries, it contained exactly what WWF had been lobbying for during the run-up to the Summit. The draft agreement even contained the precise wording from several WWF briefings on fisheries. A commitment to establishing MPAs including representative networks was also reached, in line with WWF's target on protected areas.

In 2003, the Endangered Seas Programme will be working with the WCPA and the US National Oceanic and Atmospheric Administration to complete guidelines for effective management of protected areas. WWF will also take the opportunity currently provided by the high profile of coral reefs and the high seas to move these issues forward both internationally and at a local level. This work will be supported by several initiatives, such as the Commonwealth Seas Initiative in which the international president of WWF, Chief Emeka Anyaoku is calling on the premiers of coastal Commonwealth countries to pledge greater protection and better management of the marine environment. The European Fisheries Campaign (mentioned above) will reach its climax in efforts to reduce environmentally harmful subsidies and will be stepped up at the WTO (see page 41). WWF will also be seeking to influence an agreement on fairer access to fisheries, particularly between the EU and African countries, as well as assisting the Marine Stewardship Council to continue its successful certification of key fisheries.

Africa and Madagascar

WWF's marine conservation work in Africa and Madagascar is focused primarily on the Western Africa, Eastern Africa and Western Indian Ocean Marine ecoregions. In addition to advancing Ecoregion Action Plans for all three, WWF continued its support to key protected areas within each of the ecoregions

Building on Gift to the Earth events in Senegal, Guinea Bissau, and Mauritania in 2001, WWF is working with IUCN and FIBA (Fondation Internationale du Banc d'Arguin) to strengthen management of MPAs and fill the gaps in the current network of protected waters in the Western African Marine ecoregion. In the Western Indian Ocean, WWF is helping to maintain three MPAs in Masoala and is working to increase the number of marine sites in Madagascar's protected area system.

Under the Mafia Island Marine Park project, WWF is helping the Tanzanian government and especially the Mafia Island people and other interest groups to conserve the island's unique marine and terrestrial biodiversity. Monitoring and patrolling are now being undertaken by members of the Community Action Committee and artisanal miners' associations.

Efforts by WWF and partner organizations in Mozambique resulted in the declaration by the government of the Bazaruto Archipelago National Park, together with a new marine and terrestrial protected area in Quirimbas (see opposite). The task for WWF now is to support the government in managing these two globally outstanding areas effectively – both lie within the Eastern African Marine ecoregion. Other marine conservation areas within the ecoregion in which WWF plays a crucial support role are Menai Bay in Zanzibar, Kiunga in Kenya, and Mafia Island in Tanzania.

The Menai Bay Conservation Area project is helping to conserve natural resources in partnership with the local community through actions to curb illegal fishing and restore traditional management of fisheries. Following

official declaration of the Conservation Area, the government has enacted legislation to enable 70 per cent of revenues raised there to be retained for conservation purposes. WWF is helping to train project staff in radio communication, scuba-diving for marine surveys, seamanship and coastal navigation, as well as in revenue collection. In addition, a new law-enforcing patrol boat financed by WWF has significantly reduced incidence of illegal fishing.

In Kiunga, an artisanal fishing zone has been established and WWF is supporting its management. Communities around the reserve have intensified patrols and surveillance against illegal fishing practices and are participating in the monitoring of fish catches and mangrove harvesting. The project has also contributed to the development of new legislation in Kenya that makes the use of scuba-diving equipment to catch lobsters illegal and requires the use of Turtle Excluder Devices (TEDs) by trawlers.

Conserving ecoregions – the seas of eastern Africa

From the coastal waters of Sodwana in South Africa to Chisamayu, some 4,600km to the north in Somalia, the Eastern African Marine ecoregion harbours a wealth of tropical species and habitats and provides for the livelihoods of millions of coastal people. The major conservation issues in the ecoregion are over-harvesting of fish, molluscs, crustaceans, and sea cucumbers, damage to coastal and mangrove forests and coral reefs, partly as a result of climate change, and pollution, particularly in and around major towns and river mouths. Populations of turtles and dolphins are declining as a result of both deliberate and accidental capture, as are dugongs, which are at serious risk of disappearing altogether.

During 2002, WWF made very good progress, in conjunction with partner organizations and local communities, on the development of an Ecoregion Action Plan structured around coastal habitats, species, and fisheries. Twenty-three conservation targets were identified, including halting the loss of quality of reefs and coral communities, protecting at least 100,000ha of mangrove forests and their wildlife, and increasing the number of dugongs.

In Mozambique, protection of two globally outstanding areas within the ecoregion was strengthened and celebrated by WWF as Gifts to the Earth: declaration of the Bazaruto Archipelago National Park in late 2001 provides much needed protection for dugongs, while the newly created Quirimbas National Park provides a means of securing the livelihoods of local fishermen through improved fisheries management. In other activities to safeguard the future of the ecoregion, WWF has signed a formal agreement with the United Nations Environment Programme (UNEP), presented the Ecoregion Action Plan to international meetings of scientists, conservation practitioners and policy-makers, and continued to build the skills and expertise of local people and non-governmental organizations.

Loggerhead turtle.
WWF-Canon / Michel Gunther

Activities to strengthen sustainable resource management on Mafia Island included issuing more than 1,000 identity certificates to local fishermen, delineation of a fishing zone in Chole Bay, and training in marine surveillance and natural resource management for more than 40 village and ward officers. WWF also advised on the preparation of an environmental education programme and a survey of villagers' awareness and understanding of marine conservation issues.

In West Africa, there is growing evidence that large-scale commercial fishing by both national and distant-water fleets has seriously depleted fish stocks, with impacts too on the marine environment, local fishing communities and even national economies. WWF is helping the Sub-Regional Fisheries Commission and other partners to reach a regional consensus on access agreements to fisheries by both local fishing interests and foreign, commercial fleets. In the coming year, this work will be complemented by projects with artisanal fishing associations and by a major study on illegal, unregulated and unreported fishing.

In South Africa, WWF has been involved in several marine research projects, the results of which are being used to develop guidelines for species conservation and to control negative impacts of recreational activities on seabirds and sharks. The studies included an investigation of the impacts of long-line fisheries on southern ocean albatrosses which revealed a high number of mortalities to foraging birds during the incubation and early guarding phase of their reproductive cycle. The data suggest that some 20,000 albatrosses and 10,000 other seabirds are killed annually by tuna-fishing vessels in the seas south of Africa. The results have contributed to the formulation of the Agreement on the Conservation of Southern Hemisphere Albatrosses and Petrels under the Bonn Convention, which will have far-reaching implications for seabird conservation.

Asia and the Pacific

WWF's work on conservation of the marine environment in the Asia-Pacific region is growing fast, thanks in part to a 50 per cent increase in funding over the past year. Much of the work has focused on protected area establishment and management, and sustainable fisheries.

A major achievement came with the designation of the 16 million ha Macquarie Island Marine Park in Australia as a marine protected area. This was followed, in late 2001, by the establishment of the 270ha Tung Ping Chau Marine Park in Hong Kong. Another proposed park in Hong Kong – Soko Island – has still to be approved.

In Indonesia, the local government agreed to a management plan for Cendrawasih Bay Marine National Park. In the Philippines, conservation of 128,000ha of coastal habitats has improved through better planning, enforcement, and management practices, as well as the introduction of user fees, which generate valuable revenues for conservation management. Partially as a result of these efforts, populations of fish in Tubbataha Reef in the Sulu Sulawesi Seas are rising. Delineation by WWF of the boundaries of the Sulu Sulawesi Sea ecoregion, which touches the coasts of Indonesia, Malaysia and the Philippines, paved the way for new marine management areas, including sanctuaries and no-fishing zones, while the identification of ocean "corridors" linking the Sulu and Sulawesi Seas has given WWF a pioneering role in marine corridor management in the region.

Successful lobbying by WWF led to the revoking of a permit for a pearl farm in the Riung protected area in the north of Flores in Indonesia's Nusa Tenggara (Lesser Sundas). WWF has been working in the area since 1999, strengthening the capacity of local people and institutions in managing the

Flocks of bar-tailed godwits and spoon-billed sandpipers wintering in the Banc d'Arguin National Park, Mauritania.
WWF-Canon / Siegfried Woldhek

area's rich marine resources. In 2002, these efforts began to pay off. Most local fishermen have stopped using destructive fishing practices, and increased awareness of marine conservation among villagers resulted in the district leader allocating funds for mapping and restoration of marine habitats. WWF was appointed as an advisor.

Collaboration between local organizations and businesses in the Banda Flores Sea has led to the development of a code of conduct. Drawn up by 25 dive operators, the Water Sports Association, and the Indonesian Diving Association, work is now underway to give the code legal status. Recognizing the efforts of all those involved, the provincial government and planning boards assigned Bali Barat and Bunaken Marine Parks as models of "best practice" for MPA management. Regular patrols in both parks resulted in the capture and conviction of eight cyanide-bomb fishermen. This example of effective law enforcement attracted national attention and WWF hopes it will be replicated in other marine parks in Indonesia.

Following certification of New Zealand's hoki fishery, the Marine Stewardship Council is now well established in the country as a means of promoting sustainable fishing practices. In Indonesia, a new certification group comprised of government agencies and NGOs looked first at aquarium products derived from coral reefs; WWF and the Marine Aquarium Council also signed an accord to work together on certification and monitoring issues. In India, WWF was involved in site selection and pre-assessment for the certification of a crab fishery. WWF's Southeast Asia Policy Programme is carrying out a study on the impact of trade on the Philippines's fisheries sector. Although in its initial stages, the project has already prompted a multi-stakeholder discussion on trade policies – the first ever undertaken in the Philippines. The government has now indicated its willingness to hold discussions on fisheries trade policy with the private sector and, significantly, with non-governmental organizations such as WWF.

Sustainable fisheries also progressed in Hong Kong with the drafting of a fisheries management strategy, licensing system, and a proposal for the creation of a Fisheries Protection Area. In Thailand, WWF is working on an amendment to the Marine National Parks Act to accommodate sustainable fishing by small-scale fishermen, as well as promoting policies and laws to eliminate destructive fishing gear and reduce fishing fleets.

Europe and the Middle East

WWF's most significant advances in marine conservation in Europe over the last 18 months centred around the European Commission's approach to the reform to the Common Fisheries Policy, the continued development of networks of marine protected areas, and the commitments given to an ecosystem approach at the fifth North Sea Ministerial Conference.

Publication of the Commission's first package of proposals for the reform of the CFP in May 2002 was encouraging, with the conservation of commercial fish stocks and fleet reduction given as the major priorities. The Commission stated that its aim was "a move towards an ecosystem-based approach to fisheries management" and "to incorporate environmental concerns into fisheries management, in particular by contributing to biodiversity protection". This was very much in line with WWF proposals. However, dissention to major changes by France, Greece, Ireland, Italy, Portugal, and Spain has slowed the process and a decision on the reforms is now expected in December 2002.

Despite delays, implementation of the

EU Habitats Directive in the marine environment is making good progress. A number of European states have now agreed to the designation of sites between 12 and 200 nautical miles offshore. Germany has already introduced the necessary legislation and the UK is under way and has committed to protecting the deep, cold-water coral reefs of the Darwin Mounds off the north-east coast of Scotland. The Darwin Mounds are a novel geographical formation lying on the sea-floor at around 1,000m. The field contains hundreds of individual mounds typically 5m high and 100m in diameter that support coral communities and a diversity of seabed invertebrates and deep-water fish. They are under immediate threat from trawling and are under consideration by the UK government as an offshore Special Area of Conservation (SAC) under the Habitats Directive.

All North Sea states have committed to have in place by 2010 networks of well-managed MPAs. The Finnish government has pledged to expand existing and create new marine National Parks and the government of the Azores has designated the first two deep-sea MPAs in the NE Atlantic, the Lucky Strike and Menez Gwen hydrothermal vent fields (described on page 34). These developments have all resulted directly from WWF advocacy. WWF is now looking at threats to MPAs from industry sectors such as offshore oil and gas, and shipping.

Also as a direct result of lobbying by WWF, North Sea states have committed to introducing an ecosystem approach to the management of human use of the North Sea. The commitments include environmental assessments and development of better planning controls for the North Sea. These steps are fundamental to the successful creation of networks of MPAs and the restoration and future management of fish stocks. WWF is encouraging such an approach in all European marine ecoregions.

Latin America and the Caribbean

The marine and coastal systems of the LAC region support a complex interaction of habitats and plant and animal life, and are among the most productive in the world. Several of the world's largest estuaries are found here, such as the Amazon and Plata Rivers on the Atlantic coast and Fonseca on the Pacific. The coastal waters of Argentina and Uruguay are home to the world's fastest-growing fishery. In Peru and Chile, an upwelling of nutrient-rich waters generates one of the top five commercial fisheries in the world. The Humboldt current drives these waters north to the Galápagos where they meet the warm tropical currents from the western Pacific, producing an astounding assemblage of marine habitats and species on the equator that include penguins as well as tropical fish.

An estimated 29 per cent of the region's reefs are at risk from increased runoff and sedimentation caused by land-based activities such as deforestation, coastal construction and mining. Several organizations, with the support of WWF, have joined forces to guarantee the long-term financial sustainability of efforts to conserve the 700km long Mesoamerican Caribbean Reef, the second largest barrier reef in the world. As well as providing livelihoods to innumerable coastal communities through fishing, tourism and other marine-related activities, this vast reef system also protects the coastline and hosts a vast biodiversity, including one of the few remaining spawning sites for reef fish in the Caribbean. To sustain existing and new conservation efforts, environmental and donor groups have come together to create a conservation plan for the reef that will contribute to its protection and rational management.

Fisheries throughout the region, that have traditionally provided employment and income for coastal residents, are at great risk. In recent

Fishing Subsidies and the WTO

In 1997, WWF began an international campaign to eliminate government subsidies that drive overfishing. A critical goal of that campaign since 1998 has been to achieve binding and effective new rules under the World Trade Organization to discipline fishing subsidies. In an important victory for WWF, trade ministers meeting in Doha, Qatar in late 2001, agreed to include negotiations on fishing subsidies in the new round of WTO trade talks. Thus, WWF's first phase of work has succeeded in getting the issue into the formal WTO rule-making process.

The outcome in Doha presented a unique opportunity for the creation of new international laws aimed at reducing and reforming harmful fishing subsidies – laws that could have a fundamental impact on the economics of the world's fisheries. Moreover, the WTO talks on fishing subsidies open a new field of play for activists and policy-makers concerned with globalization more generally, and with the need to reform the WTO. For the first time, a piece of the multilateral trading system is to be explicitly focused on the sustainability of a vital natural resource. And for the first time, a significant trade negotiation has grown out of pressures brought by environmental NGOs rather than by private commercial interests. Thus, on several fronts the WTO talks will break new ground.

WWF's success to date at moving the fishing subsidies ahead in the WTO and elsewhere was the result of four years of research, communications, and policy advocacy that reflected:

- WWF's strength in the field (drawing on experiences with the impacts of fishing subsidies) combined with a capacity for strong and sophisticated policy advocacy in national capitals and in international fora (including FAO, the UN Commission on Sustainable Development, UNEP, and the WTO), and
- WWF's ability to work with governments and international bodies in a constructive, solutions-oriented manner, without losing the ability to use hard-hitting public communications when necessary.

Through this multifaceted work WWF has been able to put the fishing subsidies issue on the international political map, prompt a group of countries called the "Friends of Fish" to push the issue in the WTO, provoke a significant shift towards reform in the European Union, and attract a broad coalition of governments from developed and developing countries in support of WTO action.

To capture this momentum, WWF will build upon successful policy advocacy in and around the WTO, in Europe, key developing countries, and the US. The aim will be to influence the fishing subsidies negotiations and to advance the broader objective of seeking concrete reforms in national policies on fishing subsidies, and in fishing industries. Success in the WTO talks will also require the participation of a broad array of stakeholders – not only in the negotiations themselves, but also in following up on the results at national and international levels. Both the equity and the effectiveness of the mechanisms ultimately adopted by the WTO will depend on drawing a wider circle of voices into the process.

WWF activists at a demonstration for reform of the Common Fisheries Policy at the EU Fisheries Council in Luxembourg.
LUXPRESS / Jean-Claude Ernst

decades, a steady increase in the size of fishing fleets has led to the overexploitation of some 35 per cent of the region's stocks. This has had economic repercussions on local communities which depend on fisheries. These pressures have led to problems of by-catch as fishermen struggle to identify alternative species, such as turtles, for harvesting. WWF is working with member governments of the Interamerican Tropical Tuna Commission (IATTC) and regional organizations to promote measures to reduce overfishing and by-catch in the eastern Pacific Ocean. With the financial support of the Packard Foundation, WWF is leading this effort through a regional fisheries officer stationed in Central America, where some of the tuna fleet is growing fastest. In addition, WWF and the FAO presented a fleet capacity management paper to the IATTC, marking the first time the FAO has provided technical input into a document prepared by an NGO for a regional fisheries organization. In other moves, WWF and the Central American Fisheries Organization (SICA/OSPESCA) organized a high-level meeting in Panama City to discuss access agreements with distant-water fishing fleets and their effect on fishing capacity in the eastern Pacific.

WWF has also been working on fishery certification. Lessons learned in spiny lobster certification in Mexico are being applied to projects in Central America, including the development of fisheries regulations in the Gulf of Honduras for lobster, conch, grouper and snapper and the protection of key spawning aggregation sites in Gladden Spit and Northern Ambergris Caye.

In Ecuador, WWF released a colourfully illustrated publication containing recipes provided by world-renowned chefs for relatively stable fish species found in the Galápagos reserve. The guide is designed to inform local fisherman, restaurant owners, chefs and the general public of the conservation status of a variety of Galápagos species and to offer tasty alternatives to over-harvested species like lobster and bacalao.

A major problem for marine areas in general is lack of adequate protection. WWF is working with governments and a range of partners to create new MPAs and strengthen the management of existing ones. Working with the Scripps Institute of Oceanography, WWF in Mexico has proposed a network of marine reserves in the Gulf of California ecoregion, one of the largest and most diverse semi-enclosed bodies of water in the world. Over the next few years, WWF will work to have these priority areas declared and managed as protected areas so that they may continue to protect threatened and endangered species as well as support the local fishing industry. Already, San Pedro Mártir Island has been declared a Biosphere Reserve and plans are underway to secure declarations for San Lorenzo Archipelago and Espíritu Santo and Partida Islands. Plans are also underway to secure the first marine park in Argentina – the Monte Leon National Park – and establish a large MPA for Jardines de la Reina archipelago in Cuba.

Once established, there is a need to ensure that MPAs are working. WWF and the WCPA are jointly defining guidelines for assessing management practices in MPAs. Using a series of goals, objectives and indicators, the new guidelines will be tested in the Upper Gulf Biosphere Reserve, Loreto Bay and Sian Ka'an in Mexico, Hol Chan Marine Reserve in Belize, and on the Galápagos Islands in Ecuador. The lessons learned will be built into the manual to be published at the World Parks Congress in September 2003.

Unsustainable tourism development along the Yucatan coast is spilling southwards and posing a major threat to conservation of the Mesoamerican Caribbean Reef. Efforts to reduce the "footprint" of new and existing facilities are required to prevent future

Imraguen fishermen with a catch of yellow mullet, Banc d'Arguin National Park, Mauritania.
WWF-Canon / Mark Edwards

environmental degradation. WWF is encouraging the tourism sector to adopt environmental standards in its operation, which accounts for some 12 per cent of the region's Gross Domestic Product. This will be a focus for WWF's work in the coming year.

North America

In Canada, National Marine Conservation Area legislation, once approved, will enable Canada's Parks agency to protect and manage a network of MPAs, including a number of key WWF sites, such as Gwaii Haanas (British Columbia) and Lake Superior (Ontario). Parks Canada accepted recommendations for the establishment of Lake Superior Marine Conservation Area, a protected area covering more than 10,000km^2. A map depicting different marine habitats in both the Canadian and American portions of the Gulf of Maine was completed and will be used by WWF to develop a proposal for a network of MPAs in that part of the Grand Banks ecoregion. And a new 3-4 year initiative has started to establish and manage a system of MPAs in the Canadian part of the Beaufort Sea.

WWF worked with commercial and recreational fishermen, NGOs, and government officials to secure approval of the Tortugas marine reserve, the largest no-take marine reserve in the US, located in the South Florida ecoregion. The reserve includes coral reefs, seagrass beds, and spawning grounds for marine life.

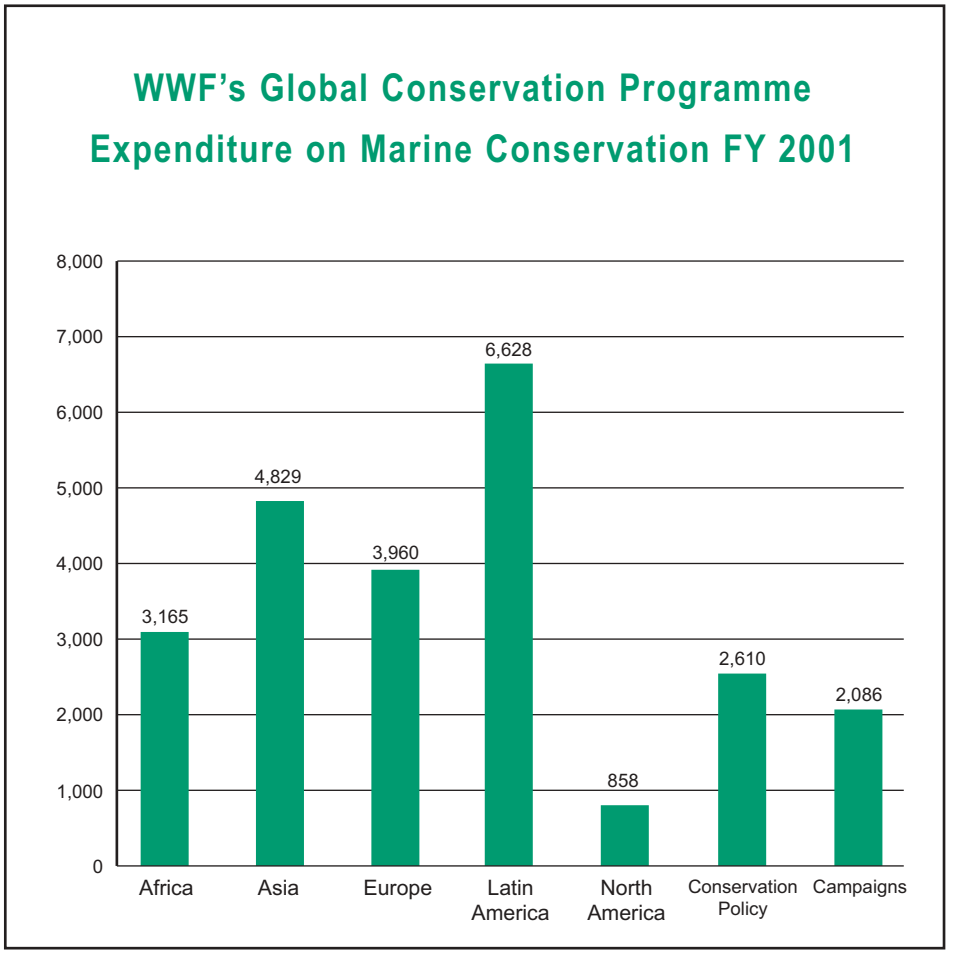
In the western Bering Sea, WWF succeeded in creating a new, 60,000km^2 coastal protected area; Nalychevo Park Marine Zone encompass a 5km band of coastal waters in northern Avachinsky Bay, an area renowned for its marine mammals and seabirds. Also in the western Bering Sea, WWF's pilot project with Russian government agencies in fisheries enforcement has resulted in more than 300 arrests and revoked permits, representing as much as

Melting sea ice in Bull Seal Bay, St Matthew Island, Alaska.
WWF-Canon / Kevin Schafer

US$1.5 million in losses for those violating fisheries regulations.

Discussions with community leaders from the Bering Sea's Pribilof Islands, in collaboration with The Nature Conservancy of Alaska, may lead to the development of a marine conservation zone around the islands. WWF is currently working on a number of follow-up steps.

WWF has been working with Whole Foods and the Marine Stewardship Council to promote a nationwide consumer campaign about the MSC and its first certified American product – wild Alaska salmon, which reached store shelves in June 2001.



Species

SUSAN LIEBERMAN, Director of the Species Programme, summarizes WWF's approach to species conservation and highlights recent and forthcoming work.

Successful conservation of key species benefits not only the thousands of lesser known plants and animals with which they co-exist but also human communities that depend on these species and habitats for their livelihoods. By adopting this approach throughout its 41-year history, WWF has a proven track record in sustainable development, providing other organizations, governments and communities with working examples of how to achieve development goals without cost to biodiversity.

Two major threats to sustainable development are illegal, unsustainable, or unregulated wildlife trade and habitat loss. Addressing these threats forms the core of WWF's Species Programme activity. WWF is working to stop the commercial overexploitation of some of the world's most threatened animals, including tigers, rhinos, and marine turtles, and to ensure the conservation of other species subject to illegal or unsustainable harvesting and trade, such as toothfish, sharks, and big-leaf mahogany. To achieve these goals, WWF engages with governments, industries and communities in both site-based conservation and international treaties, in particular CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora).

New species are being discovered all the time, yet at the same time species are disappearing at a faster rate than ever. In June 2002, two monkey species new to science were found in Brazil's Amazon rainforest. The scientists responsible for the discovery say there are likely to be other species within the rainforest that are unknown to science. This find highlights the urgent need to save the Earth's most biologically diverse ecosystems. By continuing efforts to secure a future for some of the most inspirational and ecologically important wildlife, WWF's Species Programme is able to maximize its conservation impact, as well as gain the support necessary to finance this work. Our "flagship" species are thus the giant panda, African and Asian elephants, African and Asian rhinos, tigers, the great apes such as gorillas and orang-utans, whales, and marine turtles.

To preserve individual species WWF has adopted a landscape – or ecoregion – approach, ensuring that as well as protecting core populations of threatened animals, their habitats are also protected. One such landscape is Tesso Nilo, an extensive tract of tropical forest in Sumatra, which WWF hopes will soon be declared a National Park by the Indonesian government. A focus on the development of healthy, secure elephant populations, as well as tigers and rhinos, has driven the implementation of sustainable landscape management.

Marine turtles are another good example of how WWF looks to protect populations of wildlife while taking an ecoregional approach to conservation. Wide-ranging, highly migratory ocean-going animals, turtles are found in a large number of ecoregions. Marine turtles are truly in the global commons and are not native to any one country. The Canary Current and Mesoamerican Caribbean Reef ecoregions, for instance, harbour six of the world's seven species, which form an integral part of the complex pattern of marine life that make the ecoregions so important in a global context. In the West Madagascar marine ecoregion WWF is promoting turtle conservation as an essential part of sustaining coastal community life. Monitoring of turtle populations over a long period has shown rising numbers of nesting leatherbacks and loggerheads. WWF is now looking to involve tourists and tourism operators in conservation activities, develop educational

programmes, train sea turtle specialists, and improve local law enforcement.

Much of the work of the Species Programme is designed to reach fruition by 2010. Stepping stones in 2003 will consist mainly of new precedents for the international fisheries and timber trades through the CITES listing of at least one fish (e.g. toothfish and/or basking or whale shark) and one tree (e.g. big-leaf mahogany) of economic importance. A lot of this work hinges on the November 2002 CITES meeting in Chile, where other priority issues will be fisheries and CITES, hawksbill turtles, elephants and ivory trade, and whales. Elsewhere, law enforcement actions will be pursued to eliminate illegal trade in at least five species of global concern, including tigers, snow leopards, Asian and African elephants, Asian and African rhinos, Tibetan antelope, and musk deer. The Species Programme will also lead the development of a major global

Targets and examples of progress in 2002

Flagship species: By 2010, populations of key species of global concern are stabilized or increased and their critical habitats safeguarded.

- Agreement with the Chinese government to establish Qinling Panda Reserve
- Training programmes to mitigate human-elephant conflict in Africa
- Increases in African populations of black rhinos and white rhinos
- At the 2002 International Whaling Commission WWF helped ensure pro-whaling nations were unable to resume commercial whaling
- Relocation of shipping lanes in Canada's Bay of Fundy to reduce risk of right whale/ship collisions
- WWF's successful campaign to encourage Pacific island nations to declare their Exclusive Economic Zones (EEZ) as whale sanctuaries
- Finalization of a new strategy for reduction in cetacean by-catch
- Development of national legislation to protect marine turtles in Latin America and the Caribbean
- Finalization of a new Action Plan for the conservation of tigers.

Wildlife trade: By 2010, at least ten species of global concern are no longer endangered by overexploitation.

- WWF was instrumental in the commissioning of CITES Appendix II listing proposals for whale shark and toothfish submitted by proponent countries for the November 2002 CITES meeting, and the successful submission of an Appendix II listing proposal for big-leaf mahogany
- Led advances relating to CITES and marine fisheries
- Through CITES, raising awareness of poaching of snow leopards.

Black rhinos, here in Ngorongoro Crater, Tanzania, increased to over 3,000 across Africa in 2001.
WWF-Canon / Michel Terrettaz

campaign on marine turtle conservation. Another goal is to stop forest loss and conversion in Tesso Nilo and to secure its future as a National Park. And work will be undertaken in both Africa and Asia to reduce conflict between people and elephants.

Nurturing WWF's reputation as an international centre of species conservation expertise is part of the Species Programme's endeavour. The programme draws on the knowledge and experience of WWF offices and ecoregion programmes around the world to provide a solid base for the conservation of species in an increasingly competitive and complex world.

Africa and Madagascar

Africa hosts four of WWF's "flagship" species groups: black and white rhinos, African elephants, four of the world's six species of great apes, and marine turtles. Conservation programmes are already in place for rhinos, elephants, and apes, with turtles in preparation.

The WWF African Rhino Programme is committed to the protection and management of the continent's endangered populations of black rhinos and white rhinos and to strengthening national and international measures for their conservation. The programme focuses principally on Kenya, Namibia, South Africa, and Zimbabwe, while WWF has also joined a consortium to implement the SADC (Southern Africa Development Community) Rhino Conservation Programme.

During 2002, WWF continued its support to rhino conservancies in Zimbabwe, despite the ongoing political instability that has impacted considerably on the work. Politically motivated invasions by squatters into conservancies led to widespread snaring and disruption of conservation activities. One positive development during this crisis, however, was the stance by senior politicians strongly supportive of wildlife-based land uses in the conservancies, but with resource-sharing to support the invading families. This firm recognition of conservancies, after some years of conflicting official attitudes, gives encouragement that the objective to increase rhino numbers will not be compromised through major loss of habitat, despite a certain amount of subsistence cultivation starting in some sections of the conservancies. The situation remains unstable.

Significant conservation achievements included completion of Kenya's National Black Rhino Strategy, in collaboration with the Kenya Wildlife Service, and development of a National Black Rhino Conservation Strategy for Namibia, in collaboration with Namibia's Ministry of Environment and Tourism and the SADC Rhino Programme. Overall, the populations of the black rhino and the white rhino have shown healthy increases. Intensive conservation efforts have helped the black rhino to increase from an estimated 2,704 in 1999 to 3,100 in 2001. The number of white rhinos rose from 10,405 in 1999 to some 11,600 in 2001. These are encouraging trends but there is still much work to be done, especially with the small endangered population of northern white rhinos.

WWF's African Elephant Programme was established in 2000 and supports seven projects (see overleaf). In

addition, WWF has continued to assist a number of protected areas which harbour large populations of elephants, including Comoé and Tai National Parks in Côte d'Ivoire, Korup and Lac Lobeke National Parks in Cameroon, Dzanga-Sangha Reserve in the Central African Republic, Minkebe Forest and Gamba Protected Area Complex in Gabon, Selous Game Reserve and Tarangire National Park in Tanzania, and Gashaka Gumpti National Park in Nigeria.

WWF has been working with partner organizations to develop the African Great Apes Programme (see page 51) which got underway in mid-2002. One long-standing project that forms part of the new programme is the International Gorilla Conservation Programme (IGCP) which conserves mountain gorillas in DRC, Rwanda, and Uganda. WWF support has helped to increase the population by 11 per cent over the last 12 years – a significant feat given the civil unrest in the region during this time. The

WWF's African Elephant Programme

Building on 41 years of experience in elephant conservation, WWF launched a new African Elephant Programme in 2000. Its objective is straightforward: to guarantee a future for this most spectacular of mammals.

By June 2002, there were seven projects underway:

- Conservation of forest elephants in the Mont Nlonako-Makombe-Ebo forest block, south-west Cameroon – WWF is working with the Ministry of Environment and Forestry to survey elephant populations and establish new protected areas.
- Mitigating human-elephant conflict in the Mara ecosystem, Kenya – the Durrell Institute of Conservation and Ecology, with Kenya Wildlife Service, is testing methods for mitigating human-elephant conflict in communities bordering the Masai Mara.
- Exchange visits between West, Central and Southern African range states to share experiences in elephant conservation and management – WWF is working with the Zimbabwe Department of National Parks & Wild Life to enhance the exchange of ideas, approaches and lessons learned between range states.
- Assessing domestic ivory markets in West Africa – TRAFFIC is conducting a study on three domestic ivory markets in West Africa to assess their impact on elephant conservation.
- Using modern methods and tools to mitigate human-elephant conflict in selected sites in Africa – IUCN's African Elephant Specialist Group is training wildlife managers and local communities in human-elephant conflict mitigation around ten WWF project sites.
- The conservation of elephants in a new protected area in Mozambique – WWF provides equipment and training for elephant anti-poaching operations in the proposed Quirimbas National Park, and trains staff and local communities in human-elephant conflict mitigation.
- Supporting the development and implementation of the Elephant Trade Information System (ETIS) – TRAFFIC is developing an analytical framework for assessing the data and information in ETIS, and is training Tanzanian wildlife managers in its application.

Young bull African elephant – WWF seeks to ensure a future for the species.
WWF-Canon / Martin Harvey

Virungas Environmental Programme around Virunga National Park in DRC has run an education programme on mountain gorillas and has also helped to resettle families away from the gorillas' Sarambwe forest home. Other WWF projects are conserving habitats for western lowland gorillas (e.g. in the Dzanga-Sangha, Lobeke, Nouabale-Ndoki, and Minkebe protected areas) and chimpanzees (e.g. in Tai and Gashaka-Gumpti). In DRC, WWF has also helped Milwaukee Zoological Society to conduct surveys of bonobos and other large mammals, train park staff in survey techniques, and carry out public awareness activities.

While preparing the new conservation programme for Africa's marine turtles, WWF has continued to support efforts to slow the decline in turtle numbers. This has been particularly successful along the coast of northern KwaZulu-Natal and southern Mozambique, where recent counts of egg-laying turtles revealed 437 loggerheads and 126 leatherbacks; the latter figure was the highest number yet recorded for leatherbacks in the survey area.

Amongst other highlights, four turtle breeding sites have been identified along 200km of coast in Gabon. Protecting places such as these from poachers will form a central part of the new programme, along with research into turtle nurseries.

Complementing two other turtle conservation networks along the Atlantic coast of Africa, a new regional network – "Tortues Marines d'Afrique de l'Ouest" – has been formed by representatives from the six countries covered by the Western African Marine ecoregion: Cape Verde, Gambia, Guineau Bissau, Guinea, Mauritania, and Senegal.

In the coming year, special emphasis will be placed on conservation actions in the Western African Marine and Eastern African Marine ecoregions, and in the Western Indian Ocean, especially Madagascar.

Asia and the Pacific

Monitoring, anti-poaching enforcement, provision of alternative income schemes such as ecotourism, developing conservation action plans for flagship species, and investigations into wildlife trade and consumption were the main areas of WWF's work in the Asia/Pacific region during 2002. Following efforts by WWF and TRAFFIC, the government of Laos agreed to work towards CITES membership. This leaves Bhutan, Solomon Islands, and Cook Islands as the region's only remaining non-CITES countries. In Thailand, 60 CITES and customs officials received training in preventing illegal wildlife trade, while Nepal established a CITES unit within its Department of National Parks and Wildlife Conservation.

Increased anti-poaching efforts are bearing fruit. In Bhutan, the illegal taking of musk deer, pheasants, fish, and medicinal plants has gone down by half. Poaching of Javan rhinos in Indonesia's Ujung Kulon National Park appears to have ceased altogether – which is good news for the four young rhino calves found in August 2001. New initiatives, such as the pilot community-based monitoring and patrolling programme in Pingwu, China, are aimed at enhancing long-term species conservation. Australia is also involving indigenous communities in species conservation, for example through an Aboriginal Rangers Conference for green turtle management.

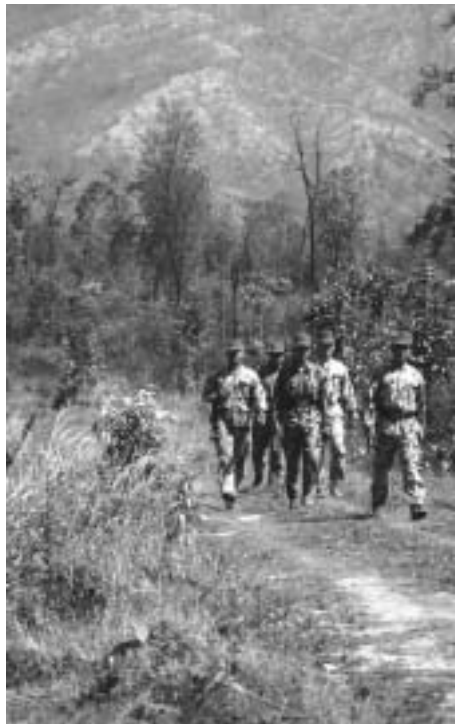
Significant headway was also made for turtle conservation in Indonesia where, by the start of 2002, the taking of turtle eggs was reduced by 25 per cent, and trade in the species reduced by more than half; annually over 20,000 turtles used to be traded in Bali, the heart of Indonesia's turtle trade. Much of this success is due to enforcement of laws on domestic consumption and sale of turtle meat and eggs, and support for turtle conservation from community and religious leaders and traditional

villagers. A further fillip came in January 2002 when the Indonesian Hindu High Council declared the use of turtles in religious offerings as not obligatory, and called on Hindus to respect turtle protection laws. This followed efforts started in 1996 by WWF with religious leaders, including a signature campaign in which many Hindu high priests and traditional leaders declared their support for turtle conservation in Bali. Elsewhere, the first Turtle Conservation Trust Fund was established in Thailand with private funds.

Whales received a big boost when several island nations in the Pacific designated their Exclusive Economic Zones (EEZ)) as whale sanctuaries. The Cook Islands were the first to take action, followed in May 2002 by Papua New Guinea, Niue, French Polynesia, and Samoa. The total area of EEZ whale sanctuaries in the Pacific is now close to 12 million km^2. More Pacific countries are expected to designate whale sanctuaries in due course. Indonesia has also signalled its intention to follow suit.

Species Action Plans have been developed by WWF for tigers, Asian elephants, Asian rhinos, and giant pandas, and WWF-Indonesia and WWF-Malaysia are developing one for orang-utans. The plans look at the underlying causes of species loss and offer solutions to overcome them. A new project in the Qinling Mountains, a critical area for panda conservation, is looking at ways of establishing and managing "corridors" linking forested areas which have become fragmented as forests have been cleared. The project hopes to identify and secure new panda reserves between which pandas can roam freely, allowing genetic exchange between different groups of animals.

Although killing tigers is illegal under Indonesian law, the number of Sumatran tigers, estimated in 1999 at fewer than 500, continues to dwindle. WWF has been working with local



Protecting rhinos – game guards on patrol in Royal Bardia National Park, Nepal.
WWF-Canon / Soh Koon Chng

NGOs to strengthen local enforcement. A decree issued by the governor of Jambi province, for instance, requires district authorities to control the hunting and trading of tigers. Conservation efforts received a further boost in March 2002 when Thailand's Ministry of Health refused permission for 30 companies to sell 78 different traditional medicines containing tiger bone and other endangered species. This was a significant achievement for WWF Thailand's "Wildlife Trade Awareness" campaign.

In 2002, the Asian Rhino and Elephant Action Strategy (AREAS) entered its second phase. The translocation of rhinos continued in Nepal with a total of 25 rhinos now moved from Chitwan National Park to Bardia National Park and Shuklaphanta Wildlife Reserve. The translocations, started in 1986, have helped in the revival of the one-horned rhino. Asian elephants, however, have not fared as well over the past 18 months. Reports were received of elephants killed in Cambodia for their tusks and other parts, and in Assam, India, where in a matter of 70 days, 31 elephants were found poisoned to death. The latter incident is a critical example of the need to solve human-wildlife conflicts – increasingly rife across Asia as people fight with animals for living space. An "e-petition", run through WWF's on-line Panda Passport, helped initiate a meeting between WWF and Assam's Chief Minister at which actions were agreed to find those responsible for the poisoning.

One of the greatest threats to the long-term conservation of species is human

The subject of renewed conservation efforts – a mountain gorilla in Virunga National Park, Democratic Republic of Congo.
WWF-Canon / Martin Harvey

poverty. Increasingly, conservation planning therefore identifies alternative income sources, such as ecotourism development. A community-based ecotourism scheme in China's Wanglang Reserve won acceptance from the local community as a key source of income, proving that panda conservation and social and economic development can go hand in hand. A similiar initiative is underway in Indonesia's Ujung Kulon National Park, and in Bhutan WWF has drafted a national ecotourism strategy. WWF has also contributed to tourism plans for Bardia, Chitwan and Kanchenjunga National Parks in Nepal.

Not all ecotourists are lucky enough to encounter wildlife close up. Imagine the excitement, therefore, when participants in a WWF-Hong Kong dolphin tour witnessed the birth of a Chinese white dolphin. Only about 150 of these dolphins are found in Hong Kong waters, where they face threats from pollution, reduced food abundance resulting from overfishing, and frequent marine developments. Another critically endangered dolphin, the North Island Hector's dolphin of New Zealand, has suffered a setback after making some gains. A ban on set-netting imposed by the New Zealand government in the dolphin's known range would have significantly reduced the accidental capture of dolphins. However, the decision was overturned by a judicial review instigated by the fishing industry. WWF is pressing the government for adequate measures to protect the world's smallest and rarest marine dolphin.

Europe and the Middle East

WWF's work on illegal wildlife trade in Europe is led by TRAFFIC Europe, the joint WWF-IUCN programme which specializes in combating illegal wildlife trade.

One of the best-known products that TRAFFIC focuses on comes from a large prehistoric fish: the sturgeon. Sturgeons can grow to 6m in length,

WWF's African Great Apes Programme

Africa is home to four of the six species of great apes: eastern gorilla, western gorilla, chimpanzee, and bonobo. All four are listed by IUCN as Endangered. Two subspecies of gorilla are listed as Critically Endangered: the mountain gorilla (about 650 individuals surviving in two populations) and the cross river gorilla (probably less than 250 in eight fragmented populations).

Africa's great apes face a number of threats:

- Illegal hunting and trade – the precise levels of hunting are unknown but between 3,000-6,000 apes may be killed each year in Africa to provide meat.
- Habitat degradation and fragmentation – logging in West and Central Africa continues to reduce ape habitat. In addition, the presence of loggers and logging roads increases poaching.
- Disease transmission – apes are susceptible to many of the same viruses and parasites as humans and have suffered as a result. For example, in Gombe National Park in Tanzania human diseases such as scabies, pneumonia and gut parasites caused an almost 40 per cent decline in a chimpanzee population.
- Human-ape conflict – with increasing human expansion, people and apes are coming into conflict more regularly. Many apes raid crops and are sometimes killed as a result.

To address these threats, WWF has launched a new African Great Apes Programme. Its goal is to improve the conservation status of at least two populations each of eastern gorilla, western gorilla, chimpanzee, and bonobo. Activities include protection and management, capacity building in range states, gaining community support for ape conservation, policy and legislation, trade, and education and awareness. In addition, WWF will continue to provide support to ongoing ape conservation projects (see under Africa and Madagascar).

weigh up to 1,200kg and live for 150 years. The largest populations of the fish live in Russia and some neighbouring countries. The product, highly prized all over the world, is caviar. Dubbed "black pearls", caviar comprises the unfertilized eggs of sturgeons. The main exporting countries are Russia and Iran, and the main importers are France, Germany and Switzerland. Since the opening up of Russia's markets, illegal harvesting of caviar has increased dramatically. Today, TRAFFIC estimates that a reduction of catches by 80 per cent would be needed to stabilize sturgeon populations and secure a future for the fish.

To combat illegal trade in caviar, TRAFFIC has been drawing up a labelling system that extends from the processing plant to retail outlets. TRAFFIC was looking for a move by CITES to make the labelling system a legal requirement. After lobbying hard to convince the main players, the draft resolution put to CITES members contained wording to make the system operational. WWF is hoping for a positive response. Work on the ground by TRAFFIC Russia includes provision of information and training for local authorities and businesses along the Caspian Sea and the Amur River, the border between Far Eastern Russia and China.

WWF and TRAFFIC also carry out work to protect plants. Another proposal for the CITES conference aimed at better protection for tropical hardwood trees such as big-leaf mahogany. The proposal includes development of easy-to-use recognition systems to enable customs authorities to differentiate between internationally protected tree species.

In other work, WWF has drafted a proposal to establish a marine protected area for a population of around 100 grey whales off north-east Sakhalin in the Sea of Okhotsk in the Russian Far East. The reserve will protect the whales' feeding grounds and important coastal areas such as Piltun Bay. In conjunction with other NGOs, WWF succeeded in curtailing seismic surveys by two oil companies that were shown to be driving the whales away from feeding areas. The proposal is being considered by both federal and regional governments.

Also in the Russian Far East, WWF, together with the Wild Life Foundation, instigated the first Russian regulations for ecological corridors in the region of Khabarovsky Kray. The regulations restrict land use in territories where it is difficult to establish protected areas. The Maiminsky ecological corridor links two key habitats of the Amur tiger, enabling the tiger to migrate freely.

In the Ligurian Whale Sanctuary in the Mediterranean Sea, WWF undertook electronic tagging of whales using satellite and radio-transmitters. The area is an important feeding ground for 18 species of whale. Despite the sanctuary, however, the cetaceans are threatened by increasing maritime traffic and pollution. The new research is part of the "Cap Ligures" scientific programme launched in 1999. One of its primary objectives is to better understand the behaviour of Mediterranean whales. Information from the study will help to shape proposals for managing the sanctuary.

Latin America and the Caribbean

Habitat loss remains the greatest threat to the survival of plant and animal species in Latin America and the Caribbean. As well as its work to ensure the survival of forest, freshwater and marine habitats, WWF is concentrating on two species of regional importance – marine turtles and mahogany. At the same time, initiatives are also underway to protect other threatened species such as the monarch butterfly and the vaquita porpoise.

Big-leaf mahogany *(Swietenia*

Mahogany ‘Swietenia macrophylla’ in the rainforest of Manu National Park, Peru.
WWF-Canon / André Bärtschi

macrophylla) represents one of the most important economic resources originating in the forests of Latin America. With the goal of ensuring the long-term stability of mahogany, WWF has joined with Conservation International, IUCN and TRAFFIC to set an agenda for mahogany conservation from the standpoint of forest management and international trade. WWF has played a key role in discussions with the timber industry in Brazil regarding ways to resolve illegal logging, much of which targets mahogany. In Peru, WWF has advanced the cause of sustainable forest management by successfully implementing the Peruvian forest law in Madre de Dios and Ucayali. The law requires management plans based on 40-year logging rotations and 5,000-50,000ha concessions, many of which hold the last commercially viable populations of mahogany in the Americas.

In 2002, plans to expand protected areas in the Peruvian Amazon – through a Gift to the Earth campaign – will go a long way to ensuring the genetic viability of maintaining stands of mahogany. On the forest management side of the issue, significant achievements are expected in northern Guatemala and Amazonian Peru that would expand the coverage of FSC-certified forests over the natural range of the species. Such a move will increase the flow of certified mahogany into the markets of North America and Europe. On the demand side, focus will fall on legislation concerning procurement policies that favour certified wood over non-certified wood. Such legislation is currently being considered in New York City, which consumes large quantities of tropical hardwoods, particularly mahogany and Guyanese greenheart, in its city constructions. With an eye to the CITES meeting in Chile, WWF played a key role in helping Nicaragua submit a proposal for the inclusion of mahogany on CITES Appendix II.

Some of the world's largest and most pristine nesting beaches for marine turtles are located within the LAC region, the oceans of which contain six of the seven species. The issues and circumstances surrounding marine turtle conservation are diverse, which is why WWF has drawn up a regional marine turtle action plan. Part of this plan involves local users and communities in efforts to protect turtle habitats. WWF is also addressing threats such as the illegal harvesting of green turtles in the Gulf of California and Galápagos, and hawksbill turtles in the Caribbean, for meat, eggs and shells, and the incidental death of turtles caught in commercial fishing nets. In 2002, WWF and many partners throughout the Caribbean argued against a proposal before CITES to reopen international trade in hawksbill shells and their products. If approved, this would result in a major setback of global efforts to ensure the survival of the species. In addition, WWF and other NGOs are working to influence turtle conservation strategies under the newly formed Interamerican Convention on Sea Turtles.

At a local level, in Peru WWF undertook an aggressive environmental education and communications campaign among the local Pisco Paracas population and restaurant owners. Nationally, WWF played a key role in setting up a working group for marine turtle conservation and in moving forward legislation to protect turtles. In Colombia, WWF is supporting the development of a national strategy for marine turtle conservation. The greatest efforts have come in the Guyanas where WWF has led the development of a five-year Comprehensive Marine Turtle Conservation Program, which includes protection of the largest concentration of leatherbacks in the world.

WWF is committed to protecting monarch butterflies and the biological phenomenon of their migration to overwintering sites in Mexico. Despite the recent massive mortality of an estimated 250 million monarch butterflies as a result of storms in the Sierra Chincua and El Rosario wintering colonies, significant advances have been made. The WWF-designed Monarch Butterfly Conservation Fund compensated landowners in the Monarch Butterfly Reserve for the cancellation of logging permits. This new scheme will provide economic incentives to gradually transform land use and the economy of the area from one based on unsustainable logging to one of conservation and sustainable forest management, ensuring the integrity of the butterfly population in a 54,000ha reserve. Some US$15 million are still needed to secure the programme and WWF is approaching the governments of Canada, Mexico and the US for support. Mexico has so far contributed US$250,000.

Also in Mexico, WWF and a group of Mexican and international NGOs, government agencies and academic institutions launched a campaign to save the highly endangered vaquita porpoise. Only 567 individuals are thought to remain in the upper Gulf of California. Excellent coverage of the campaign in national newspapers and on radio and television news prompted a call to WWF from the Mexican Environment Minister offering his assistance. By mid-2002, the campaign had raised more than 9,000 letters sent to President Fox calling for action.

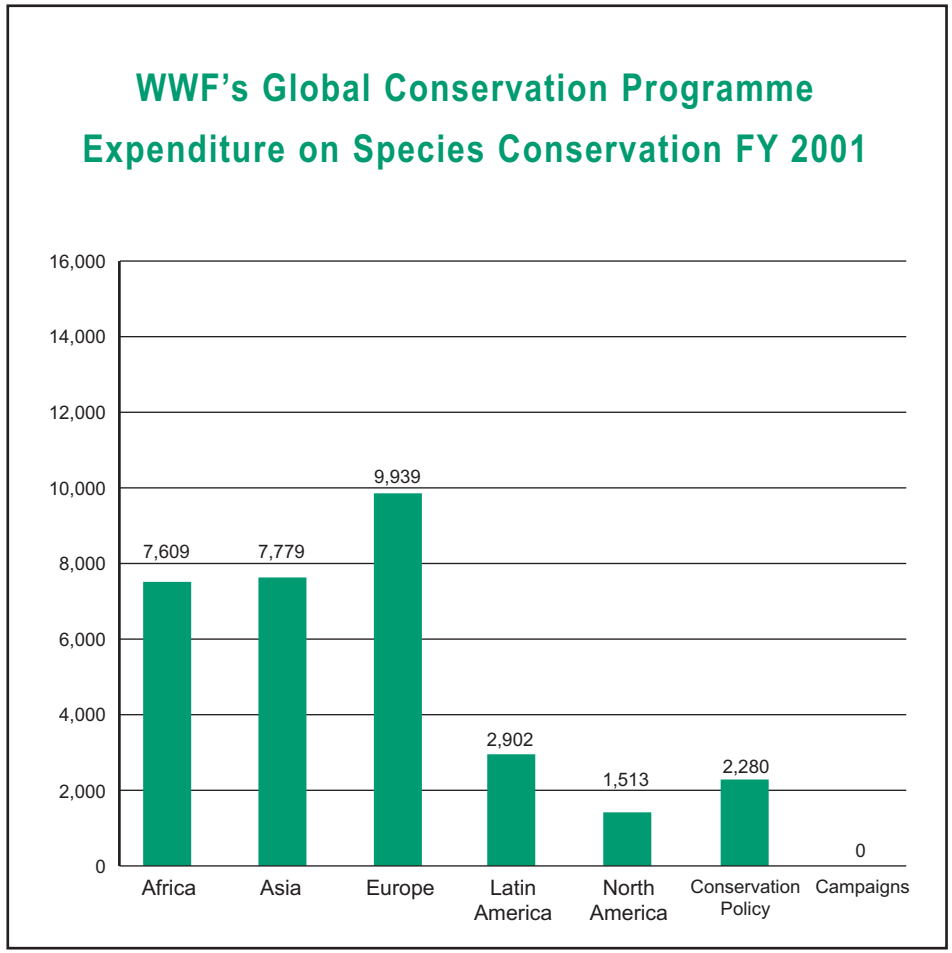
Monarch – some US$15 million are needed to secure the conservation programme for the butterfly.
WWF-Canon / Kevin Schafer

North America

A successful proposal by WWF and others submitted to the IMO to move the shipping lanes in the Bay of Fundy is expected to reduce collisions between right whales and ships – the single biggest threat to this critically endangered species – by as much as 80 per cent.

In the first study anywhere in the world of leatherback turtles in temperate waters, satellite-tagging of males, which do not show up on tropical nesting beaches, will help to reveal their patterns of movement and behaviour. It is hoped that the information gained will aid efforts to reduce turtle by-catch.

WWF-Canada and WWF-US joined forces to develop a bi-national conservation programme for some of the most intact prairie ecosystems of the Northern High Plains. As well as supporting a number of unique and recently discovered plant communities, the region is also important for declining species such as mountain plover, sage grouse, swift fox, black-tailed prairie dog, and black-footed ferret. WWF is working with the Northern Plains Conservation Network, consisting of more than 20 NGOs, to develop a conservation plan for the region.



Climate Change

JENNIFER MORGAN, Director of the Climate Change Programme, provides an overview of WWF's recent efforts to fight climate change and the challenges that lie ahead.

The impacts of climate change on biodiversity threaten much, if not all, of WWF's mission. Scientists warn that the increase in temperatures, coupled with more intense weather events, are placing coral reefs, arctic and montane areas, and forests at very serious risk. WWF's Climate Change Programme is working across the world to reduce that risk by leveraging commitments from governments, business and industry, the financial sector and the public to bring about deep cuts in the emissions of greenhouse gases that cause global warming.

There are four components which together form an unprecedented international programme working in over 30 countries and internationally to save the planet from climate change: pressing for positive changes to international and national policies, heightening the awareness and improving the performance of business and industry, mobilizing the public to take action, and documenting the impacts of climate change and mitigating those impacts.

Against the odds, 2001 ended with the successful conclusion of the Kyoto climate treaty, due in no small part to dogged campaigning over four years by WWF. The outcome was all the more remarkable in that it was achieved in the face of opposition by the US administration and the oil, coal and car industries. WWF believes that the treaty provided a small first step in combating climate change. Its entry into force, even without the United States, will send a clear signal to the global market and policy-makers that binding climate action is required. This will also bring pressure on the US to join the rest of the world. The treaty contains mandatory commitments requiring most of the industrialized world to start cutting back on global warming pollution. It also lays a foundation for the deeper reductions in carbon dioxide emissions over coming decades needed to prevent the worst projected impacts from becoming reality.

WWF's first task in 2002 was to ensure Kyoto was turned into international law. The "Go for Kyoto" campaign needed to persuade a "hit-list" of up to 25 industrialized nations to ratify the treaty. The campaign combined direct lobbying and the mobilization of WWF's global network of activists to call on prominent government leaders to discharge their responsibilities. This was especially true in Japan, the European Union and Russia. By mid-2002, entry into force looked likely, with the eyes of the world focused on the Russian Federation following a promise by President Putin that Russia would ratify the treaty.

With Kyoto on course, WWF shifted its focus away from the United Nations' climate negotiations towards implementing cuts in carbon pollution by policy-makers, business and industry, and the financial sector. The Climate Change Programme is now working to ensure that industrialized nations make substantial reductions in their domestic emissions of CO_2, the main global warming gas, by 2010, and to promote the use of energy efficiency and clean renewable energy in the developing world. A major effort is concentrated on reducing CO_2 emissions from electricity generation – the single largest cause of global warming and the sector where emission reduction options are most readily available and cost effective.

WWF offices are working nationally to achieve aggressive policies, while the programme is assessing where pressure can be applied internationally for emissions reductions. Success depends

on ensuring that effective power sector policies are introduced, that decisions by business and industry and by financial institutions lead to lower carbon emissions, and that consumers use their spending power to benefit power companies pursuing a low-carbon future. WWF is aiming for an international agreement to increase the share of new renewable energy to 10 per cent by 2010; this would send a clear signal to markets that renewable energy is a serious source for today and the future.

WWF's "Climate Savers" programme continues to grow. Working with companies that agree aggressive commitments to reduce their emissions, Climate Savers demonstrates that climate business is good business. Six companies have now joined – IBM, Johnson & Johnson, Nike, Collins Pine, Polaroid, and Lafarge. Our work to garner business support for the Kyoto climate treaty was also highly successful, with more than 180 companies enlisting.

In June 2002, WWF adopted a new tack with the start of a campaign to promote clean, "green" electricity to businesses and public institutions in the five nations that together account for three-quarters of the European Union's power production: France, Germany, Italy, Spain, and the UK (see page 60).

Influencing investment decisions is pivotal to curbing rising carbon emissions. In response to the Kyoto treaty's Clean Development Mechanism, which offers credits to industrialized countries that set up pollution-reduction projects in developing countries, WWF established a new scheme to ensure that the market favours sound and effective projects. In leading industrialized countries, WWF is engaging fund managers to ensure that governments are aware of the financial risks of investing in projects with high carbon emissions and to steer them towards low- and zero-carbon investment options.

Targets and examples of progress in 2002

Emissions reductions in industrialized countries: By 2010, a 10 per cent reduction below 1990 emissions in industrialized country carbon dioxide emissions.

- Finalizing the Kyoto Protocol and setting it well along the pathway of entry into force
- Lafarge, Nike, and The Collins Companies join the Climate Savers programme
- Launch of a website with Ben and Jerry's that gave people in the US, western Europe and Japan the opportunity to pledge to take action to reduce their own carbon footprint and send a political message to politicians
- Support for renewable energy in the EU (Renewable Energy Directive) and the US (renewable portfolio standard in the US Senate energy legislation).

Solutions in developing countries: 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.

- Sustainable energy trade mission to the EU by the Philippines Minister of Energy and a delegation of companies, organized by WWF, which helped to raise investment support for renewable energy projects in the Philippines and raised the international profile of the country as a destination for sustainable energy investors.

National impacts management plans and strategies: 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.

- First field test of adaptation strategies begun in American Samoa through a grant from the US Environmental Protection Agency. The project aims to discover what role freshwater river basins, through nutrient runoff, and protected area status might have on limiting bleaching of coral reefs
- Research in the north-west Pacific to determine if floodplain protection and condition can offer salmon protection from warming Pacific waters.

City traffic, such as here in the streets of Bangkok, Thailand, contributes to the 23 billion tonnes of carbon dioxide entering the atmosphere every year.
WWF-Canon / Martin Harvey

WWF continues to lead the field in documenting and publicizing the impacts of climate change on biodiversity. A new analysis by WWF revealed that habitat changes resulting from global warming could lead to a catastrophic loss of species in one-fifth of the world's most vulnerable nature areas, ranging from the equator to the poles. Another study showed that global warming is taking a dramatic toll on the Arctic and the polar bears that live there. The website linked to the study (www.panda.org/polarbears) was recommended by leading media organizations in the UK and the US.

Publicizing the impacts of global warming remains a key element of WWF's work. However, because the world is committed to significant levels of warming over the coming decades, WWF is developing a new area of work aimed at reducing the vulnerability of nature and economies to the inevitable impacts of climate change. The first step involves the preparation of an adaptation manual for field conservation professionals, to be combined with a series of pilot projects.

Our first field test of adaptation strategies began in American Samoa through a grant from the US Environmental Protection Agency. The project will examine the role that land-based watershed condition (through nutrient run-off) and protected area status have on limiting the scope of coral bleaching. These studies may demonstrate that it is possible to offer some protection to coral reefs from the deleterious effects of coral bleaching by creating marine protected areas and/or protecting watersheds. And in the north-west Pacific, WWF is working with University of Washington researchers to determine if floodplain protection/condition can offer salmon any protection from warming Pacific waters. Using El Niño years as a proxy for long-term changes in North Pacific temperature regimes, we are examining the success of salmon from streams with and without intact floodplain habitat. The study will examine data gathered over many years, focusing primarily on the US states of Oregon and Washington, and the Canadian province of British Columbia.

Asia and the Pacific

WWF's work on climate change in Asia and the Pacific revolves around pressing countries to reduce CO_2 emissions, for example from the burning of fossil fuels such as coal, and encouraging the development of national plans to cope with the impacts of climate change.

Low-lying countries will be affected most by sea-level rise caused by global warming. At particular risk are coral reefs in the South Pacific, Indonesia and the Philippines which are vulnerable to "bleaching" – so-called because large areas of coral die and turn white. In Indonesia, WWF is using such occurrences as an indicator of the ecological and economic impacts of climate change. A rapid response team is on standby waiting to document mass bleaching of reefs with the aim of understanding the phenomenon and raising awareness among local governments, communities, and the media of the need to take preventative action.

Similarly in the South Pacific, WWF is working to strengthen Pacific Island countries' understanding of the impact of climate change on biodiversity. There is already wide political and public acknowledgement that climate change is having an impact, so the focus here is to help governments

develop appropriate adaptation measures and ensure that the Pacific voice is heard in global fora. Of particular concern in the region is the refusal by some industrialized countries, such as Australia, to ratify the Kyoto climate treaty and cut back on CO_2 emissions.

WWF is acknowledged by the Japanese government as an opinion leader on climate change. As such, the organization was invited to participate in the drafting of a National Emission Scenario as a member of the government's Study Committee. India, a major emitter of greenhouse gases, is being encouraged by WWF to look at its obligations under the Kyoto treaty. With this in mind, WWF met with government officials, policy-makers, economists, and environmentalists in a workshop in May 2002 to draw up policy recommendations for limiting climate change impacts. In Nepal, WWF signed an agreement with the Ministry of Population and Environment for closer collaboration

Working with business and industry

Changes in corporate practice are essential to achieve measurable progress in tackling global warming, moving to renewable energy systems and clean technologies, phasing out toxic chemicals and ensuring sustainable use of commodities such as timber, fish and agricultural products. Although corporations are often part of the problem, they should undoubtedly be part of the solution. According to the Institute of Policy Studies (1995), of the world's top 100 economic entities, 51 were corporations and only 49 were countries.

WWF believes that corporate engagement is a key to transforming markets, to changing domestic and international law and to adopting and promoting a shift of the sector to sustainable development and to best practice.

WWF's policy is to enter into business and industry relationships which deliver conservation on the ground and contribute to the attainment of the organization's mission, while endeavouring to protect and enhance the WWF brand, independence and integrity. WWF will work with most companies when the company demonstrates a real commitment to the principles of sustainability. Three of the most important of WWF's own guiding principles for engagement are mutual respect, transparency and WWF's right to criticize; WWF and the corporate partner will not agree on all things all the time. Agreeing to disagree in a transparent framework has been a key factor in sustaining relationships that are beneficial to both partners.

WWF's approach to working with business is constructive and solutions-oriented. It is both collaborative in its methods and challenging in its objectives. And it is always forward-looking; WWF works with companies to help them change the way they do business.

WWF International's Business and Industry Unit aims to encourage and facilitate a coordinated and strategic approach by the global WWF Network to business and industry relations by:

- supporting the development and implementation of global programme-led partnerships
- supporting the development of the network's capacity to address business and industry issues and encouraging engagement in an informed and coordinated way (e.g. risk assessments), and
- developing innovative, strategic partnerships with a wide range of influential actors to help achieve WWF's global conservation targets.

Under the Conservation Partnership with WWF, Lafarge, a world leader in building materials, has made a major commitment to reducing its carbon dioxide emissions by 10 per cent below 1990 levels, by 2010.

WWF | LAFARGE Conservation Partner

Reef fish – increasingly at risk where corals die from bleaching caused by global warming.
WWF / Catherine Holloway

on urban and pollution issues; polluting vehicles in the Kathmandu Valley have already been banned.

Much of WWF's climate change work in the region is taking place in China, where the focus is on greater use of renewable energy. Studies of renewable energy options and training for renewable energy enterprises, including a study tour by Chinese industry leaders to Europe, have been undertaken. A campaign to promote "green" electricity is at the planning stage and will include engaging the media to make the link between water shortages and climate change. In Thailand, WWF is helping to reform the power sector, promoting policies and economic incentives that encourage energy saving and efficiency and renewable sources of energy generation.

In addition to assessing impacts of coral bleaching on Tubbataha reef in the Sulu Sulawesi Seas, WWF in the Philippines is also helping the country to establish itself as a regional leader in renewable energy technology. This included a study tour to Europe led by the Philippine Energy Secretary.

Europe and the Middle East

In addition to successfully promoting ratification of the Kyoto climate treaty by European countries, in particular the EU which ratified the treaty in June, WWF's efforts in Europe have focused on measures to improve the environmental performance of the power sector. Globally, WWF plans to assess the 10-15 largest power companies in Western Europe, Eastern Europe and Russia, North America, Australia, and key countries in Asia. The performance of these companies (e.g. carbon dioxide emissions, nuclear power, renewable energy generation) will be used to generate "scorecard" ratings of power sector companies. WWF will also be sending open letters to companies inviting their support for WWF's "Clean Power Agenda" or parts of it. This will help WWF to identify those companies willing to champion actions against climate change and prompt change within the industry.

WWF is currently gathering support from EU member states for the Emissions Trading Directive. This offers the potential for both a viable alternative to the flawed Kyoto emissions trading system and a strong incentive to cut CO_2 emissions domestically in the EU. WWF is working to get the Directive agreed by the European Parliament by mid-2003.

The Climate Change Programme has entered into a working relationship with leading construction company ABB. With ABB support, WWF is working on a draft Directive on co-generation of power in the EU. WWF views co-generation, combining natural gas-fired power stations with solar and other energy sources, as a cost-effective means of reducing greenhouse gas emissions. WWF is collaborating on the proposal with COGEN Europe, the European Trade Association for the Promotion of Cogeneration based in Brussels. WWF hopes that the first draft of the Directive will go before the European Council and Parliament before the end of 2003.

In cooperation with other environmental NGOs, WWF has established the European Green Electricity Network (EUGENE) with the objective of defining an eco-standard for "green" electricity. Under the scheme, electricity generated from renewable sources would carry an ecolabel and will be available to

Conserving ecoregions – the forests of New Guinea

During 2002, WWF released a new analysis revealing that habitat changes resulting from global warming could lead to a catastrophic loss of species in one-fifth of the world's most threatened nature areas, ranging from the equator to the poles. In addition to working to reduce greenhouse gases, WWF is developing a new area of work aimed at reducing the vulnerability of nature and economies to the inevitable impacts of global warming. The first step involves the preparation of a manual advising nature conservation managers on how to adapt management regimes to a changing climate. By looking ahead, the effects of climate change may be reduced and hard-won conservation achievements saved. This is particularly important for the Global 200 ecoregions, such as the Forests of New Guinea.

New Guinea is the world's largest and biologically richest tropical island, supporting the largest remaining intact block of tropical rainforest in the Asia/Pacific region. These forests, and their extensive freshwater systems, are the lifeblood for 6.5 million people, more than four-fifths of whom live a village-based subsistence lifestyle. The forests host an extraordinarily diverse and unique wildlife, including some 25,000 plant species, most of them unique, almost 800 bird and 147 mammal species, many found nowhere else. Most recognizable are the fabulously colourful birds of paradise, as well as many other organisms which reach their greatest diversity here, including orchids, tree-dwelling marsupials, pigeons, and reef fish.

New Guinea is divided politically between the nation of Papua New Guinea (PNG) in the east and the Indonesian province of Papua (formerly Irian Jaya) in the west. Almost all land in PNG is held in customary ownership while state control of land in Papua is now recognizing some communal ownership of resources. Taken together, this is one of the poorest regions on Earth, with desperate needs for improved health, education and income options. Under the UK Department for International Development's (DfID) poverty alleviation programme, and in partnership with local communities and organizations, WWF is helping to deal with these issues by shaping new economic options that protect the environment, supporting conservation areas and encouraging a more integrated approach to decision-making on resource management that respects community values.

Of the seven Global 200 ecoregions in New Guinea, WWF is focusing on the great river basins of the Sepik, Mamberano, Kikori, Fly and Digul Rivers as well as the Birdshead peninsula of Papua. Building on the successes of earlier work across the TransFly savannahs ecoregion linking PNG, Indonesia and Australia, a process of ecoregional planning across the whole island of New Guinea was begun in 2001. With a range of partners, WWF is helping to spearhead a more integrated and expansive approach to conservation and resource management which has already resulted in:

- a new resource centre – the Pacific Ecoregions Centre – for large-scale planning in Madang, PNG
- signing of a Tri-National Wetlands Agreement for cooperation between PNG, Indonesia and Australia
- commitments to river basin management in PNG
- endorsement by the PNG government of ecoregions as the basis of large-scale resource planning
- a multi-stakeholder process to sustainably manage and capture revenue from the valuable trade in gaharu – large evergreen trees prized for their fragrant wood and oil
- high-level exchange visits between PNG and Papua on ecoforestry.

companies and consumers wanting to switch to cleaner, renewable sources. WWF is promoting environment friendly electricity to businesses and public institutions in five countries – France, Germany, Italy, Spain, and the UK – that together account for three-quarters of the European Union's power production.

Latin America and the Caribbean

Awareness continues to grow in Latin America and the Caribbean regarding current and potential future impacts of climate change, and the Kyoto climate treaty, particularly the Clean Development Mechanism. Climate change is also becoming an integral part of WWF's conservation activities in the region. For example, in Brazil it is one of the variables taken into account in the planning of new protected areas. However, before WWF can move forward with pilot projects that address climate change in entire ecoregions (such as the Amazon River and Flooded Forests or Valdivian Temperate Rainforests ecoregions), there is a need to build more understanding of the subject and the capacity to address it, both within and outside the organization. As well as making the necessary investments, over the next year and beyond WWF will be studying the possibilities of forming alliances with other NGOs, research institutes, and business and industry, participating in regional networks, and preparing Clean Development Mechanism projects.

North America

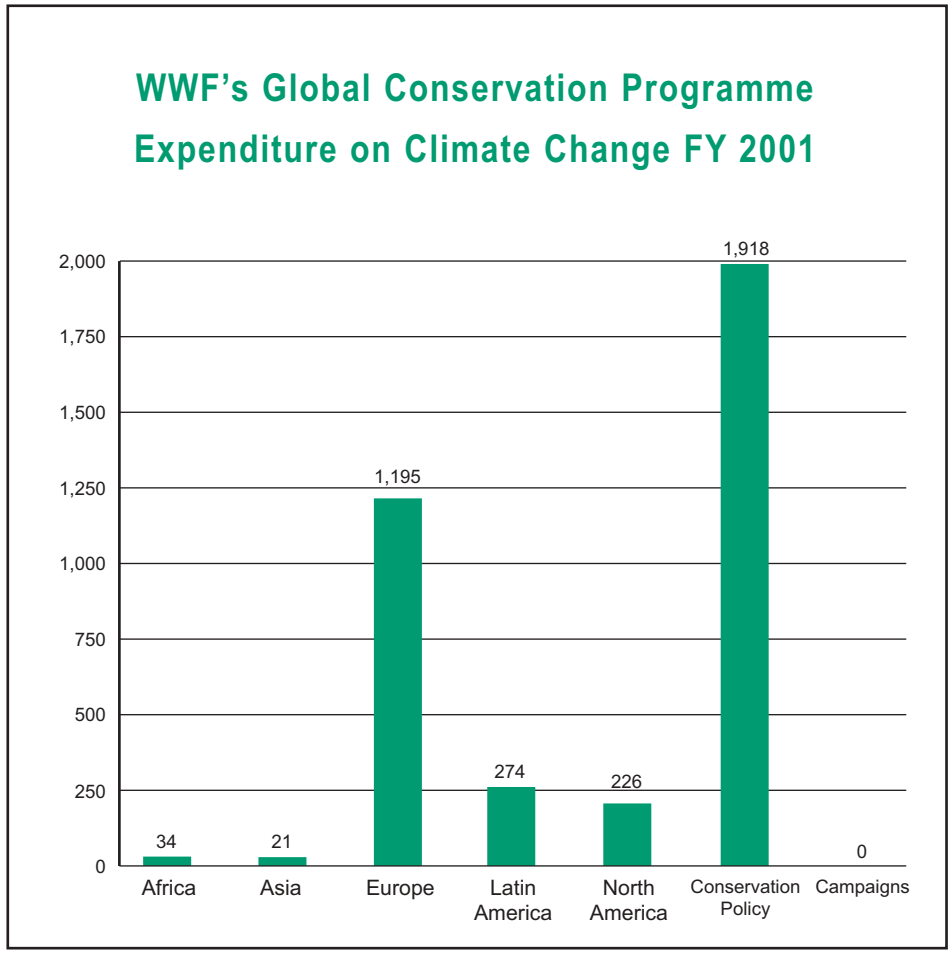
Over the last year, WWF's climate team, in partnership with Canadian NGOs, looked at the barriers preventing Canada's ratification of the Kyoto climate treaty. This included comparing the US and Canadian energy-efficiency programmes to challenge the notion that non-ratification by the US would have a harmful effect on the Canadian economy, as well as exploring the

A new report supported by WWF named climate change as the main threat to polar bears as their Arctic home melts.
WWF / Fritz Pölking

likely benefits to Canada of ratifying the treaty, particularly where forests and agricultural lands are concerned.

In other work, WWF supported a study of climate change impacts on polar bears, seals and ice edge in Hudson Bay, part of ongoing research into ways of mitigating the effects of climate change on the Arctic. The report, *Polar Bears at Risk*, reviews the threats faced by the world's 22,000 polar bears and highlights climate change as the main threat to their survival. As Arctic temperatures rise, longer ice-free periods limit the time the bears have on the ice to hunt, leading to greater mortality, especially among cubs. A new WWF website – www.panda.org/polarbears – contains extensive information about polar bears and their Arctic domain, and includes satellite-tracking of two female bears as they roam the ice pack in search of prey.

Two new North American companies, Nike and The Collins Companies, joined the Climate Savers programme, increasing its credibility as a means of reducing greenhouse gas emissions from business and industry.



Toxics

CLIFTON CURTIS, Director of the Toxics Programme, summarizes WWF's work over the last year to curb the spread and use of dangerous, life-threatening chemicals.

Over the last 50 years, evidence has been mounting on the threat posed by synthetic chemicals to the health and well-being of wildlife and people. Wherever scientists look, they find the impact of toxic chemicals. No person, species, or region of the Earth can escape the reach of these insidious pollutants. Contamination from persistent synthetic chemicals is a pervasive problem that will take enormous effort, resources, and creativity to address effectively.

WWF's Toxics Programme is meeting the toxics challenge head on at national and international levels. Having successfully challenged governments to adopt the Stockholm Persistent Organic Pollutants (POPs) Convention in 2001, we are pressing those same decision-makers to ratify that global agreement expeditiously, enabling its early entry-into-force. Excellent progress has been made in promoting ratification during the past year. WWF will continue to champion that effort in 2003 and work to ensure effective implementation, including adequate funding for developing countries and transitional economies. In addition, the Toxics Programme is enhancing our outreach to business and industry to secure their commitment to reduce and eliminate POPs.

Benefiting from WWF's ground-breaking role in bringing attention to hormone-disrupting chemicals, many scientists have concluded that synthetic compounds have already harmed many wildlife populations and humans by interfering with the development of the body, including the brain, and by undermining the ability to learn, to fight off disease, and to reproduce. WWF scientists in Canada, the US and the EU have been alerting people to the threats they pose, helping decision-makers to appreciate and respond to these contaminants. In the EU and elsewhere, this evidence will aid in WWF's efforts during 2003 to promote the enactment of environmentally sound chemicals management strategies and to engage companies to reduce their use of hormone disrupting chemicals.

Already, WWF has achieved a historic success when, at the IMO in October 2001, the world's shipping nations adopted a new global convention on chemical anti-fouling paints. The chemicals – organotins such as tributyltin (TBT) – are used on ships' hulls to prevent barnacles and other marine organisms from attaching and are among the most toxic ever deliberately released into the marine environment. At the same time, WWF announced the creation of the "2003 Group", which involves environmentally responsible ship owners whose fleets are already organotin-free. With the IMO resolution urging industry to stop using, selling and marketing organotins – giving a clear message that these chemicals are no longer acceptable – the "2003 Group" provides an opportunity for the shipping industry to adhere to the spirit of the new convention and stop using organotins before the convention is due to become legally binding in 2003.

The international community has made significant progress in addressing toxic chemicals issues, but much more needs to be done to protect life on Earth from these dangerous compounds. The pervasive and global nature of the threat underscores the urgency of continued and heightened action in addressing toxic chemicals-related issues. With projects underway in locations around the world, from Bering Sea communities to Colombia's northern Andes, and from Pakistan's Indus River Delta to the Florida Everglades, WWF will continue to be actively engaged, using science-based

The WWF-initiated Africa Stockpiles Programme is gaining momentum to rid the continent of 50,000 tonnes of dangerous, out-of-date pesticides.
Pesticide Action Network-UK

initiatives to inform and drive policy reforms at all levels of governance.

Africa and Madagascar

An innovative, on-the-ground partnership to address threats from obsolete pesticide stockpiles in Africa is gaining momentum. The WWF-initiated Africa Stockpiles Programme (ASP) brings together the resources and talents of intergovernmental organizations, international aid agencies, environmental NGOs and the pesticides industry. Designed to clean up existing stockpiles and prevent their future recurrence, the project is estimated to cost US$250 million over 15 years, contributing to poverty alleviation as well as a more sustainable development for national and local economies. Clean-up operations in several countries are set to begin in mid-2003. Financial support from the GEF and the Canadian government, with contributions of time and further resources by WWF, the World Bank, UNEP, the African Union, Pesticide Action Network and others, are enabling the development of a comprehensive, effective programme. Nonetheless, to ensure the long-term success of the project, substantial funds still need to be raised, leveraging GEF support with that of government aid agencies and others.

Asia and the Pacific

WWF in Pakistan is leading the organization's work to eliminate the production and use of toxic chemicals in the Asia/Pacific region, where a number of advances have been made over the last 18 months.

In Indonesia, WWF convinced a large mining company to be openly responsible over the impact of mine tailings on the vegetation and wildlife of a mangrove forest. WWF also persuaded the company not to dump toxic material into local river systems. In the Philippines WWF joined with industry leaders, shipping owners,

Targets and examples of progress in 2002

Elimination: 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).

- Progress toward ratification and entry into force of the Stockholm (POPs) Convention
- The decision by the International Maritime Organization to phase out organotin anti-fouling paints.

Informed decision-making: 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.

- Introduction in the United States of the "Hormone Disruption Research Act of 2003"
- Development of a European Union Chemicals Strategy.

resort owners, national and local government agencies, and other NGOs to sign a Memorandum of Understanding committing all parties to cooperate in mitigating oil spills and their effects in Balayan Bay. Among the signatories were Shell, Caltex, the Philippine Coast Guard, Philippine Ports Authority, and Friends of Balayan Bay, a resort association. A GIS-aided oil spill response system for the area was also successfully piloted.

In other efforts, WWF continued to advise on management of solid waste and pollution. In Sagarmatha and Kanchenjunga National Parks in Nepal, for example, where waste management is a major component of the tourism plan, clean-up efforts resulted in the collection and disposal of 1,000kg of rubbish. A competition organized for high schools in Thimphu, Bhutan, saw the collection of 11,300kg of plastic waste and 15,000kg of biodegradable waste. And in Pakistan, WWF developed a community-based municipal solid waste management system for 750 households in a low-income urban area – a model which will be replicated in other urban areas.

Europe and the Middle East

The EU is beginning to take on global responsibility for chemicals management and legislation by trying to produce a far-reaching strategy, the principles of which can be used around the world, to reduce currently uncontrolled exposures to toxic chemicals. In this, WWF is keenly supporting the Directorate General for Environment in the European Commission and working hard in the expert/technical drafting groups. WWF is also lending support to Members of the European Parliament who are backing the initiative. At the same time, WWF will highlight the inadequacies of the current law, the resulting dangers posed by chemicals that have not been tested for their safety, and the irresponsible behaviour of the chemical industry in putting humans and wildlife at risk.

The new legislation, when completed, will help with phasing out the production and use of persistent organic pollutants and other harmful bioaccumulative substances throughout Europe, along with chemicals with endocrine-disrupting properties. WWF has played a key role in lobbying for "global responsibility" with respect to toxic chemicals, but the battle is far from won; the US and the Far East (along with certain EU states) are not yet totally supportive of the new policy.

WWF is the only environmental NGO currently pressing to ensure that new, low-dose studies on the impact of the endocrine disrupter Bisphenol A on wildlife are properly considered in the EU's review of this chemical. A major industrial chemical, Bisphenol A is a proven endocrine disrupter that has been shown to affect wildlife development at low levels. The present review could potentially restrict its use in the EU, encouraging the development of safer alternatives. The WWF work on this process is also setting a benchmark for how risk assessment of chemicals can be done in a precautionary way.

Latin America and the Caribbean

As industrialization and urbanization have become more widespread in Latin America and the Caribbean, so the issue of toxics has grown in consequence. WWF's work to reduce the harmful effects of toxics on human and wildlife populations is also gathering pace in the region.

In Colombia, WWF has been studying toxics issues that may affect biodiversity conservation in the Northern Andes. The organization is also looking at threats posed by aerial fumigation of illicit crops and has influenced US foreign policy regarding environmental impact analyses. In Guyana, as part of the Guayanan Forests Environmental Conservation Project, WWF is working with local

Common seals hauled out on a sand beach in the Wadden Sea, Netherlands – a species at risk from toxic pollution in the North-East Atlantic.
WWF / Jan van de Kam

communities to monitor the environmental and health impacts of mercury used in artisanal goldmining. Preliminary results show significantly high levels of mercury in local inhabitants and fish sampled in both Suriname and Guyana.

Following the *Jessica* oil spill that polluted some of the waters around the Galápagos Islands in 2001, WWF has developed and is promoting adoption by the Ecuadorian authorities of the "Galápagos Energy Blueprint". The blueprint aims at transforming polluting energy systems currently in use in the archipelago to clean, sustainable technologies. Complementing two energy-related initiatives already being implemented by the Ecuadorian government, WWF hopes the blueprint will help prevent future man-made disasters that could threaten the biological wealth of the Galápagos Islands.

While it is clear that toxics affect ecoregions, the full extent to which this is so is unknown. It is important, therefore, to gain a clearer understanding of how the world's most dangerous chemicals, such as POPs and EDCs, which continue to be used, are affecting the region's biodiversity, including human life. For this reason, WWF is exploring ways to integrate a toxics component into future work. An early step will be a region-wide assessment, or assessments focused on individual ecoregions, to identify the most significant threats to biodiversity posed by POPs and EDCs, and how they relate to commercial and industrial processes.

North America

WWF has led the campaign for reform of Canada's pesticide legislation. Alliances with farmers, a successful court case which entrenched the right of municipalities to ban the use of pesticides locally, and strong messages aimed at the public and politicians culminated with the introduction of amendments to

Conserving ecoregions – North-East Atlantic Shelf

WWF's Toxics Programme is working to reduce the number of toxic chemicals threatening the world's ecoregions, for example combating chemical runoff from land-based activities which enter coastal systems and oceans, affecting coral reefs and fisheries. In the North-East Atlantic, WWF is collaborating with OSPAR, the Convention for the Protection of the Marine Environment of the North-East Atlantic, to phase out highly persistent polybrominated biphenyl ethers (PBDEs) – fire-retardant chemicals added to plastics in a wide range of products – which build up in body tissues.

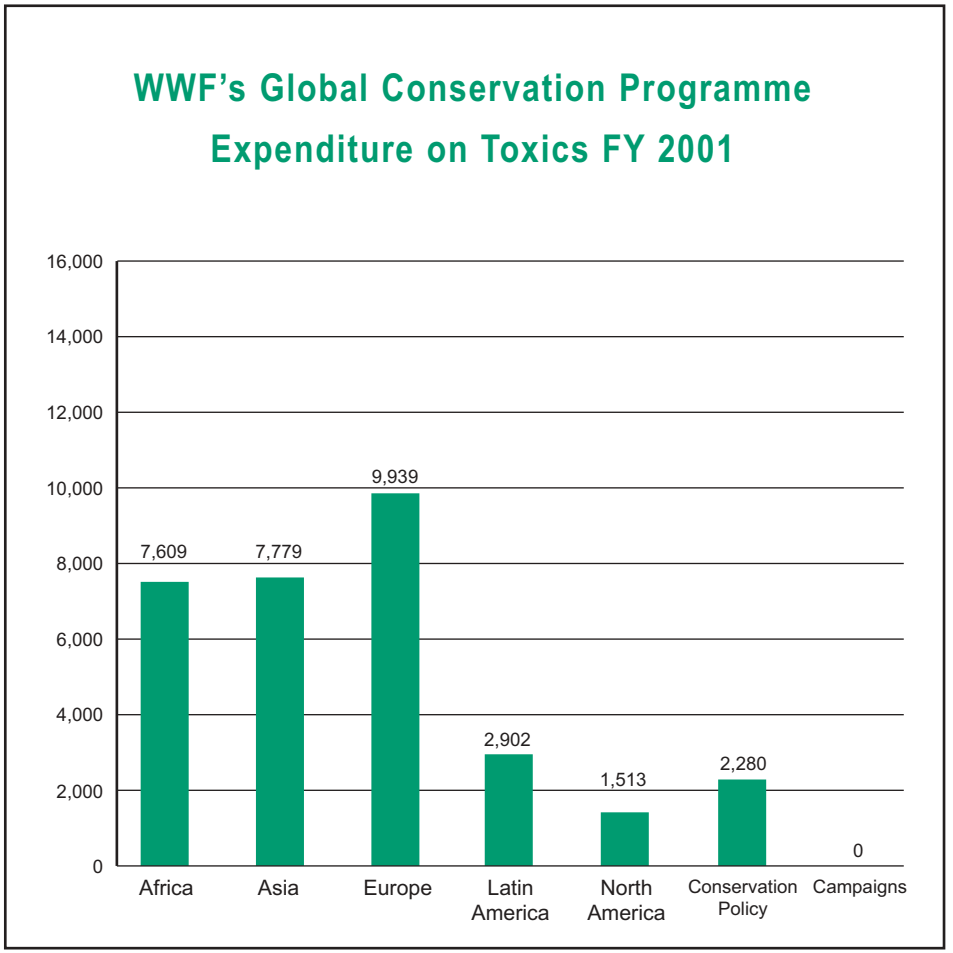
The North-East Atlantic Shelf ecoregion is a collection of highly productive marine ecosystems of critical importance for people and wildlife. The seas, including the shallow Wadden Sea, the North Sea, the Irish Sea, and the deeper waters of the Celtic Sea, are rich in marine wildlife – sharks, seals, whales, dolphins, and sea-birds – as well as commercially important fish stocks. There are highly productive plankton and bottom-dwelling communities, kelp forests, sea grass beds and even cold water coral reefs. Millions of migratory waterfowl and waders depend on feeding and breeding grounds along the sea coasts.

Despite its size, this fragile marine environment is at risk. Once highly productive fisheries face collapse, shipping lanes are some of the most congested in the world, demand for non-renewable marine resources such as oil, gas and minerals continues to grow, and the adjacent coasts support some of the most concentrated urban and industrial developments in the world. WWF's North-East Atlantic Programme aims to protect and, where necessary, restore biodiversity and maintain the natural productivity and status of the marine environment. Its special focus is on the land-sea interface and land-based activities which affect the sea. By working with intergovernmental organizations, such as OSPAR, WWF has obtained commitments to keep the ocean clean and to "green" fisheries policy. Recent WWF successes include the protection of hydraulic vents in the Azores (see page 34) and action to save the harbour porpoise.

Canada's Pest Control Products Act. In the US, WWF continues to press the government to ratify the Stockholm Convention on persistent organic pollutants.

Based on evidence of endocrine disruption, or the need for precautionary action in the absence of such evidence, WWF has been pressing the US Environment Protection Agency to encourage stricter controls on endocrine-disrupting pesticides, including atrazine, lindane, endosulfan, and 2-4D. WWF is also gearing up its work on toxics issues with the business community.

In the Yukon-Kuskokwim region of western Alaska, WWF worked with five native communities to collect and analyse sediment samples close to a former military airfield that has a long history of toxic spills and dumping of chemical contaminants. The US Air Force allocated US$650,000 for the study which was used to develop the research design, train community technicians to collect biological samples, and analyse the data. Another WWF study, on the impact of POPs and EDCs on the health of wildlife in the territory of Nunavut, blends traditional knowledge with scientific analyses and has received strong community-level support.



Financial overview

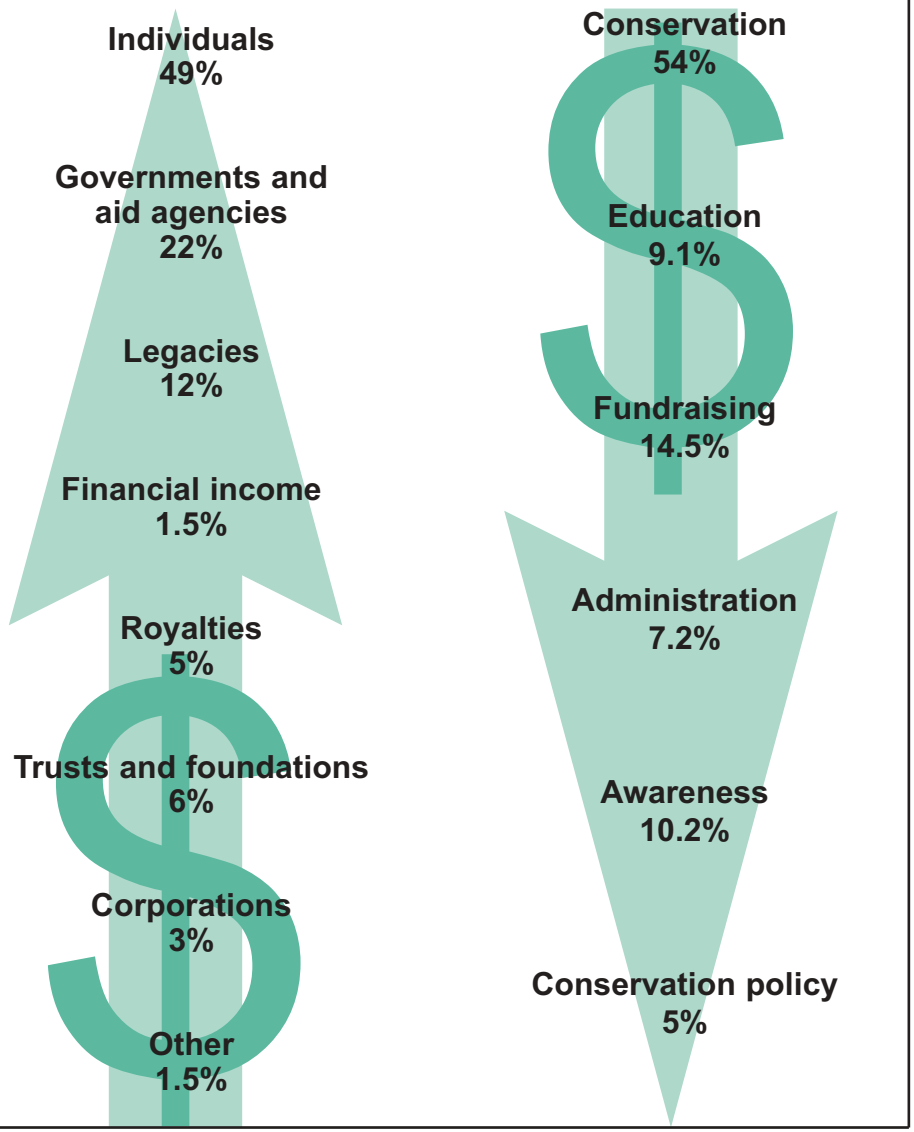
WWF relies on the generosity of individuals as its major source of funding. In 2001, 49 per cent of the organization's income came from this source. Legacies and donations from trusts and foundations amounted to 18 per cent.

A substantial part of WWF's income is derived from government grants and aid agencies. Often, these funds – which in 2001 amounted to 22 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 CHF18 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 USD25,000 (CHF37,500).

WWF NETWORK INCOME AND EXPENDITURE FY 2001



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