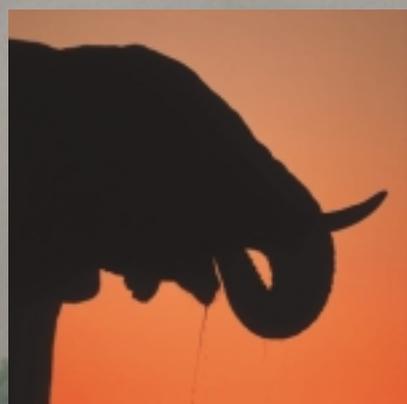
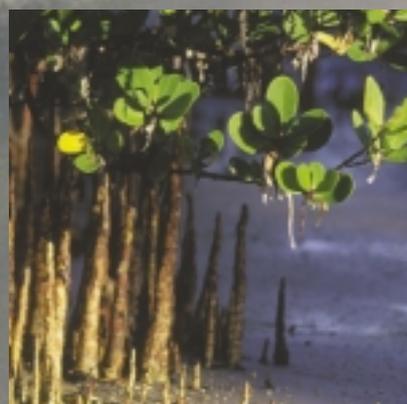




conserving nature partnering with people

**WWF's global
work on
protected
area networks**



a vision

FOR PROTECTED AREAS

contents

Partnerships for people and nature	1
WWF's work in protected areas	2
Large-scale conservation strategies	3
Targeted conservation	4
Making policy work	6
People and protected areas	7
Strong partnerships, powerful results	8
Partners in conservation	12
Rewarding conservation efforts	14
Challenges and future work	15
Future work	
1. Completing protected area networks	16
2. Improving management	17
3. Securing sustainable funding	17
4. Safeguarding against global threats	18

“...a global network of well-managed protected areas, sustaining biodiversity and natural resources across entire ecosystems, helping to reduce poverty, providing environmental services and resilience to long-term change, protecting threatened human cultures and communities, and giving space for both wildlife and people...”

WWF — together with partners in government, industry, local and international NGOs, development agencies, local communities, and indigenous people — working to turn its vision into reality.



partnerships



FOR PEOPLE AND NATURE

ECONOMIC BENEFITS
Coral reefs contribute US\$30 billion in net benefits to global economies each year.

THE CREATION OF THE world's 100,000 protected areas over the past 130 years represents the largest conscious land-use change in history. Protected areas now cover some 12 per cent of the Earth's land surface — more than India and China put together.

As the number of protected areas has grown, so too has our understanding of the benefits they provide. In addition to their primary function of preserving biological diversity, we now recognize that they also perform essential environmental services; maintain natural resources; shelter local cultures and spiritual sites; mitigate long-term global threats; reduce border tensions; help reduce poverty through providing livelihoods; and provide economic benefits.

However, the world's natural areas remain under threat — with disastrous consequences. Plant and animal species are becoming extinct faster than at any time in our history. Fisheries are collapsing,

while forests and freshwater systems continue to deteriorate.

The reasons for this are varied. Some protected areas are not well managed. Many habitats are poorly represented in the current network of protected areas, including open seas and coastal areas, marshes and swamps, mangroves, grasslands, and temperate forests. In addition, there are several global threats to protected areas, including climate change, continued conversion of natural habitat, diversion of water from rivers and other freshwater systems, and overfishing.

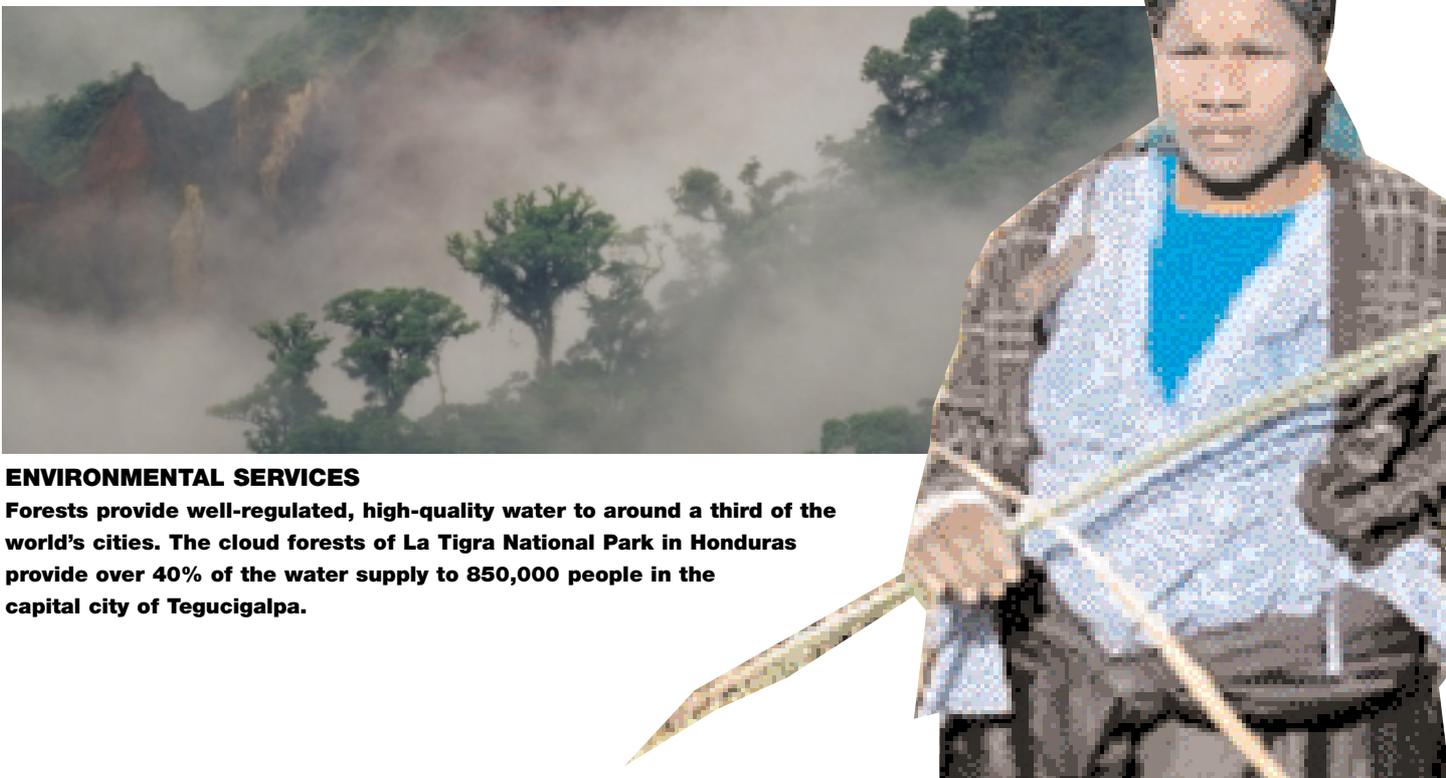
WWF is working harder than ever to establish a global network of ecologically representative and effectively managed land, freshwater, and marine protected areas. With 40 years' experience, targeted conservation goals, and projects combining practical field implementation with high-level policy work in over 100 countries, we are uniquely placed to lead protected area work into the 21st century.

BUT WE CANNOT DO THIS ALONE

Our partners — from indigenous people, local communities, park managers, and NGOs, to governments, international organizations, development agencies, landowners, and industry — have always been integral to our protected area work. Indeed one of our guiding principles is to build and strengthen working relationships for conservation. Only by working together can we secure the future of our planet's natural areas: bringing benefits to both people and nature.

PROVISION OF LIVELIHOODS

The sustainable use of sedge grasses for weaving allows Ntuli women living around the Mbongolwane wetland, a Ramsar Site in Zambia, to earn regular incomes.



ENVIRONMENTAL SERVICES

Forests provide well-regulated, high-quality water to around a third of the world's cities. The cloud forests of La Tigra National Park in Honduras provide over 40% of the water supply to 850,000 people in the capital city of Tegucigalpa.

WWF's work

IN PROTECTED AREAS

SINCE OUR INCEPTION in 1961, WWF has been working to preserve biodiversity. Protected areas have always been a key part of this. Indeed, one of our first projects was to purchase, with the Spanish government, a section of Spain's Guadalquivir Delta marshes and establish the Coto Doñana National Park.

With our partners, we have been at the forefront of all aspects of protected area work from planning, establishing, and managing to securing financing and policy making. Our work combines:

- **Large-scale conservation strategies** to safeguard the world's most important ecoregions
- **Targeted conservation goals** to address key global challenges

● **Field projects** in more than 100 countries to establish, restore, and effectively manage protected area networks and protect them from long-term global threats

● **Advocacy and policy work**

● **Partners**, including indigenous people, local communities, park managers, NGOs, land owners, governments, international organizations, development agencies, and industry.



CONSERVATION FROM A NUMBER OF ANGLES

WWF is working to protect the Mesoamerican Reef in a number of ways and with a variety of partners.

In Belize, WWF, Friends of Nature, The Nature Conservancy, the Belize Audubon Society, Green Reef, the Toledo Institute for Development and the Environment (TIDE), and the Wildlife Conservation Society secured a commitment from the Belize government to fully protect 11 spawning sites for the endangered Nassau grouper (*Epinephelus striatus*), and to close the entire fishery in Belize during the grouper's spawning season. This will also protect more than 20 other species of reef fish that spawn in the same area. The closure came with significant support from artisanal and commercial fishers, who have witnessed the decline of Nassau grouper catches from thousands to just a handful of fish.

In Mexico, WWF organized the first certification and accreditation course for whale shark tour guides. The course, attended by fishers and private tourism agencies, resulted in the development of an official government guideline for people swimming near whale sharks (*Rhincodon typus*). Rules for minimizing disturbance to this docile fish, the biggest in the world, include no SCUBA diving, only two people swimming at the same time, and keeping a distance of 8 metres.

And in Honduras, WWF is working in the Aguan watershed, which is threatened by rapidly expanding banana and oil palm plantations, with runoff reaching the fragile Mesoamerican coral reefs.

WWF is also developing the whale shark ecotourism community model in Utila, Bay Islands.

large scale



CONSERVATION STRATEGIES

PLANNING PROTECTED AREAS
Ecoregion conservation strategies are needed to protect Kazakhstan's Katon-Karagai National Park.

AS ISOLATED pockets, protected areas alone cannot provide effective conservation of biodiversity. Nor can they maintain viable populations of species in blocks of natural habitat large enough to be resilient to large-scale disturbances such as climate change, or provide essential ecosystem services. A key element of WWF's work is therefore conservation of ecoregions.

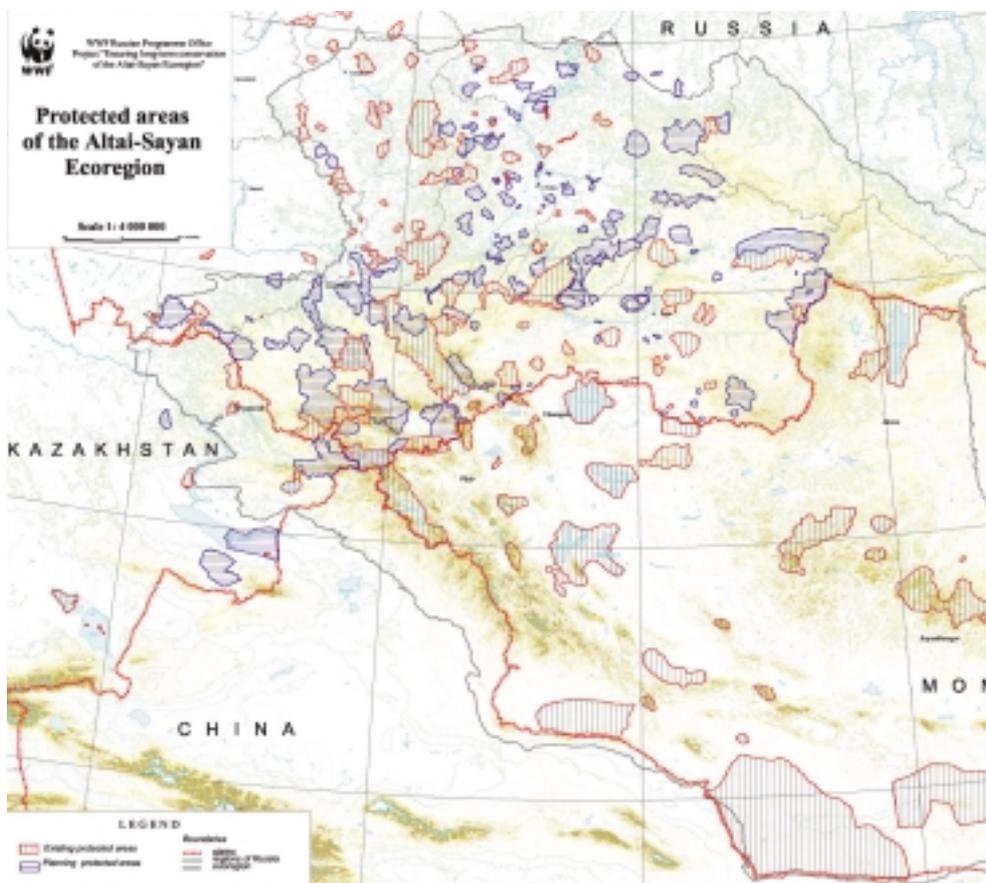
WWF has prioritized 238 land, freshwater, and marine ecoregions of critical importance to biodiversity — **The Global 200 Ecoregions** — that are the main areas in which our conservation work is focused. These include

diverse land-, water-, and seascapes, including deserts, forests, grasslands, tundra, corals, mangroves, marshes, rivers, and seas.

We are developing large-scale conservation strategies for a subset of these ecoregions in order to complete a representative network of protected areas to safeguard our planet's terrestrial, freshwater, and marine biodiversity. These strategies combine protection, good management, and restoration of landscapes. One important element of this work is to identify 'gaps' — areas that are not yet protected but should be for effective protection of the entire ecoregion. In addition, ecosystems

that are currently underrepresented in existing protected area networks — such as wetlands, marine and coastal areas, savannahs and grasslands, and temperate forests — need to be included in these networks.

We see national protected areas as just one element — trans-boundary protected areas, buffer zones, corridors, no-take zones, and sustainable land uses within and outside protected areas are also parts of ecoregion conservation. We also consider social and economic factors, both to integrate conservation with sustainable development and to help tackle global issues like the causes and impacts of climate change.

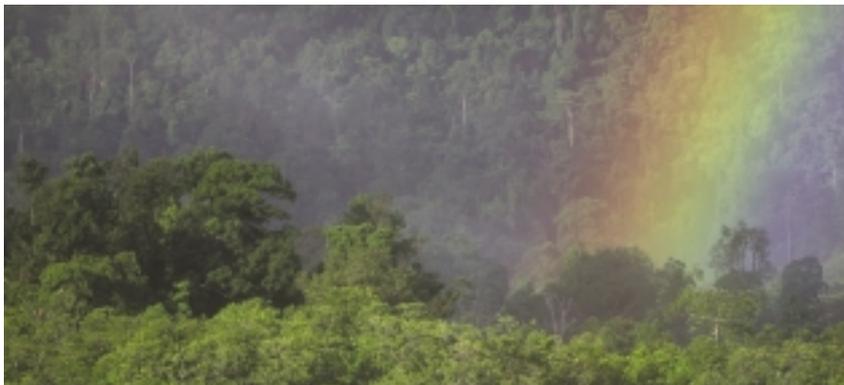


PROTECTING ECOREGIONS

In order to ensure conservation of biodiversity in the transboundary Altai-Sayan ecoregion, WWF and partners in China, Kazakhstan, Mongolia, and Russia carried out an analysis to identify gaps in the existing network of 287 protected areas. The analysis identified sites for 216 new protected areas (covering 9.6 million hectares) that are biologically connected through corridors and zones of limited land use. Implementation of these protected areas, corridors, and zones is now underway.

targeted

CONSERVATION



FORESTS

TARGET: Creating 50 million hectares of new forest protected areas and improving management in a further 50 million hectares of forest by 2005.

WITH SO MUCH to be done, it is important to focus conservation work to maximize our effectiveness. In order to increase the coverage of protected areas, improve their management, and safeguard them from long-term global threats, WWF has developed conservation programmes with ten-year targets and intermediate milestones by which to measure progress and success. Protected area targets typically address three major issues: the creation of new protected areas; improved management and funding; and the reduction of key threats.

This targeted approach, focused primarily in the Global 200 ecoregions, is paying off. Since the mid-1990s we have helped to create nearly 80 million hectares of new protected areas, conserving critical forests, freshwater, marine, and coastal environments.

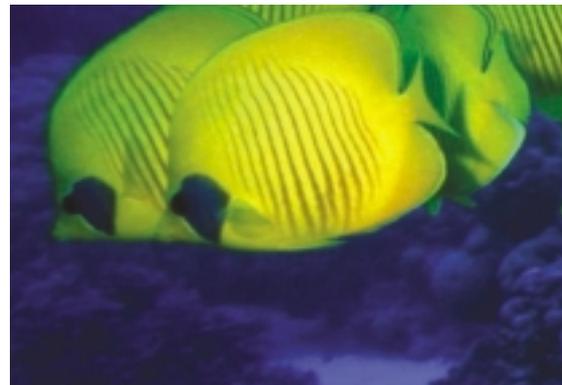
A snapshot of our different protected area targets and progress-so-far follows.

FORESTS

Since 1998, when the target was first announced, WWF has helped to identify and protect over 30 million hectares of the world's most exceptional forests. We are currently working to help governments to meet their commitments to set aside an additional 30 million hectares. Also, through strong partnerships, we are currently helping to improve the management of over 350 forest protected areas worldwide, with a combined area of over 40 million hectares – ten times the size of Switzerland. A system for monitoring management improvements has also been put in place. Current work involves completing gap and threat analyses for focal forest ecoregions and mapping target sites to complete representative protected area networks. We are also addressing the need for restoration and design of natural corridors and the curbing of key threats such as illegal logging, forest conversion, forest fires, and the negative impact of major infrastructure development.

FRESHWATER

Since 1999, WWF has helped protect 38 million hectares of critically



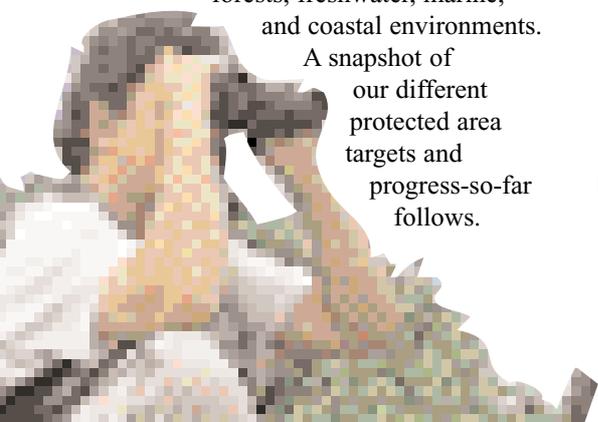
MARINE

TARGET: Effectively managed, ecologically representative marine protected area networks

important wetland areas, many of which have been designated as Ramsar Sites – the world's largest single protected area network. Nine countries designated 22 million hectares of Ramsar Sites in the first eight months of 2002 alone, amounting to a quarter of the total area designated in the previous 30 years. These designations will not only help countries to protect their freshwater sources, but also further their sustainable development goals and address poverty and livelihood issues. With the diversion of fresh water for agriculture soaring around the world, WWF is also working to ensure that the ecology of wetland protected areas is maintained through adequate allocations of fresh water by river basin management programmes.

MARINE

WWF has helped make oceans the new protected area frontier, using our vision, field experience, and science and policy resources to lead the global effort for increased marine protection. During the last few years, as governments have finally begun to recognize the importance of marine protected area networks, WWF has





FRESHWATER TARGET: Protection and sustainable management of 250 million hectares of high-priority freshwater ecosystems, with more than 80 million hectares listed as Ramsar Sites, by 2010. The target represents a more than trebling of the world's protected wetlands over ten years.



covering at least 2% of the world's seas by 2005 and at least 10% by 2020 — a tenfold increase over the current level of less than 1%.

helped achieve protection for more than 10 million hectares of marine areas, including important coral reefs, sea grasses, fishing zones, and deep-sea habitats. In addition, WWF has worked with local communities to establish no-take zones to help protect fish stocks, and is working for more effective management of marine protected areas.

FLAGSHIP SPECIES

One of the key threats facing the world's species, and therefore biodiversity, is the loss and destruction of important habitats and ecosystems. Using conservation of key species as a focus, WWF is working with governments, scientists, and local communities to safeguard the biodiversity of over

FLAGSHIP SPECIES

TARGET: Populations of key species of global concern are stabilized or increased and their critical habitats safeguarded by 2010 — including giant panda, tiger, rhinoceros, elephants, marine turtles, great apes, and great whales.



CLIMATE CHANGE

TARGET: Planning and developing climate change adaptation strategies in six key ecoregions by 2005.

25 key landscapes around the world through identifying key protected areas and training local communities in management techniques. Over the past year, WWF has helped create 2.8 billion hectares of ocean sanctuaries important for whales and other species. These efforts will contribute to both the preservation of biodiversity and the economic well-being of many communities through increased opportunities for ecotourism and sustainable activities.

CLIMATE CHANGE

WWF has developed a *Climate Change Users Manual*, the first-ever tool to help managers of protected areas assess the impacts of climate change and develop strategies to

buffer these effects. Covering most of the world's key habitats, the manual gives advice on assessing vulnerability and selecting and devising strategies to enable protected areas to cope with the impacts of limited global warming. Such damage-control strategies must always be implemented in conjunction with efforts to reduce emissions of greenhouse gases in order to keep the increase in average global temperature well below 2...C.



making policy

WORK

PROTECTED AREAS cannot be safeguarded simply by defining a boundary on a map. Long-term conservation needs the support of local, national, regional, and international policy, as well as good governance and good business practice.

INTERNATIONAL AND NATIONAL POLICY

WWF played a major role in the development of international agreements such as the Convention on Biological Diversity and the Plan of Implementation of the World Summit on Sustainable Development. These agreements call for the establishment of networks of well-managed protected areas. WWF works with governments, aid agencies, local communities, and others to develop and implement their protected area policies so that these international treaties can become reality on the ground.

We also work with other international agreements that support the role of protected areas. The Convention on International Trade in Endangered Species (CITES) helps to limit trade in threatened plants and animals, thus reducing the incentive to remove these species illegally from protected areas. WWF is working with the Convention on Migratory Species to protect species as they migrate, and with the Ramsar Convention to manage wetlands and coastal marine habitat for the benefit of nature and people.

Trade, development, and other economic issues also affect protected areas. WWF works at the global level to address the links between the environment, trade, poverty, social equity, and macroeconomic reform. We work in close collaboration with governments and communities around the world to ensure that protected areas are well integrated in national policies for development, agriculture, fisheries, and water management.

GOVERNANCE

Poor governance typically leads to conflicts over the legitimacy of protected areas and may result in their degradation. WWF advocates and supports the development of improved governance, including appropriate power structures, decision-making processes, and stakeholder involvement to ensure equity, accountability, and performance of protected areas. We also help to build capacity and empower local leadership and grassroots and other non-governmental organizations to participate and engage professionally in collaborative design and management of protected areas.

GOOD BUSINESS PRACTICE

Protected areas also need the support of business and industry. WWF encourages practices that prevent the exploration, exploitation, or damage of protected areas and promote the sustainable use of natural resources, whether publicly or privately owned.



PROTECTING THE HIGH SEAS

WWF is working closely with the United Nations, the International Maritime Organization, and IUCN—The World Conservation Union to develop a framework for protection of the high seas and deep-sea areas, which fall outside national jurisdictions and so pose particular challenges for the establishment and enforcement of protection. WWF is also championing the establishment of Particularly Sensitive Sea Areas (PSSAs) as a means of regulating shipping routes to help mitigate threats to sensitive marine habitats from shipping disasters like the 2002 *Prestige* oil spill.

people



AND PROTECTED AREAS

CULTURES AS WELL AS BIODIVERSITY

Protected areas shelter vulnerable peoples and cultures and depend on them for their long-term survival.



INDIGENOUS PEOPLES AND local communities are crucial for the protection of natural resources and biodiversity. Indigenous peoples, for example, inhabit nearly 20 per cent of the planet, mainly in areas where there is still a high degree of biodiversity. This makes them some of the Earth's most important stewards. When their lands come under threat from non-sustainable forms of development, they also suffer.

WWF recognizes the crucial role that indigenous people and local communities play in safeguarding biodiversity through the perpetuation of those traditional practices that ensure the sustainable use of natural resources. We believe that protected areas are only viable if they are supported by indigenous peoples and local communities who live in

or near the area and depend on it. Our work on protected areas therefore not only aims to safeguard biodiversity but also to sustain the cultures and livelihoods of people.

We respect the human and development rights of indigenous peoples and local communities, and recognize the need to balance biodiversity conservation with peoples' livelihoods with no net loss to either. Protected areas have sometimes been established with little regard for indigenous peoples and local communities, who may have been forcibly removed from their traditional lands or lost their rights to the land and access to natural resources, suffering as a result. Building support from local communities and indigenous peoples and securing their improved livelihoods are critical to ensuring effective management of protected areas. If indigenous or local people have been forced off land or lost

ownership and access rights in the creation of protected areas, restitution measures should be considered.

WWF believes that involvement of communities in protected areas must start at the planning and establishment phases, be carried through to management and monitoring, and include benefit sharing. In the implementation of its programme, WWF is strongly committed to identifying the economic, social, and cultural benefits of protected areas to people. We work on strengthening the role of protected areas in providing sustainable livelihoods and food and water security, particularly to the poor. We help ensure that protected areas can continue to deliver essential environmental services to society at large, maintain natural resources, mitigate global long-term threats, and keep safe havens for the expression of cultural and spiritual values.



The Paca s Novos National Park and the Uru-eu-wau-wau Indigenous Reserve are like one whole: we protect both, for those of us who will still be born. We do not like the illegal loggers for they kill the forest, they destroy the nest of the harpy eagle, they damage our lives. We want this forest protected, and we fight for it.

Djuripe Uru-eu-wau-wau, Rondonia, Brazil

strong partnerships,

WWF is a global organization acting locally through a network of over 90 offices. Since 1985, it has invested over US\$1,165 million and undertaken some 11,000 projects in more than 100 countries.

Working with indigenous people

Canadian Boreal Forests and Low Arctic Tundra ecoregions
Over 10 million hectares of land has been withdrawn from industrial development in Canada's Mackenzie Valley, home to the Deh Cho people. This Conservation First approach, embedded in aboriginal traditions, is key to establishing an interconnected network of culturally and ecologically significant areas in Deh Cho lands.
Partners include: Deh Cho First Nations; Canadian government; Northwest Territories government; Canadian Parks and Wilderness Society; Ducks Unlimited Canada

Creating and implementing biodiversity visions

Gulf of California ecoregion
A biodiversity vision has been adopted that will help protect nearly 40% of the Gulf of California — four times more than the global target of 10% protection for the world's oceans. The project will help the long-term sustainability of the Gulf's important fisheries sector.
Partners include: Mexico's National Ecology Institute; Conservation International; The Nature Conservancy; other NGOs



Protecting deep-sea areas

Two marine protected areas have been created around species-rich hydrothermal vents in the Azores, the first deep-sea conservation initiative in the Atlantic Ocean.
Partners include: Azores regional government; University of the Azores; InterRidge; OSPAR Convention; Seas at Risk

Improving livelihoods

Upper Amazon Rivers and Streams ecoregion
By addressing threats posed by deforestation and dams, and establishing private reserves, local communities in Colombia have boosted their standard of living: incomes have doubled and the conservation of vegetation, soil, and water means that 40% of food requirements can be met onsite.
Partners include: Peasants' Development Association; Network of Private Nature Reserves; other community organizations in Colombia

Changing policy and regulating trade

Southwestern Amazon ecoregion
CITES Appendix II in 2002. This will support efforts to address the massive illegal logging and trade of mahogany that threatens the species with commercial extinction.
Partners include: TRAFFIC; CITES; various governments; communities in Central America; European mahogany importers



Working on large-scale initiatives

Amazon Forest ecoregions in Brazil
A network covering 12% of the Brazilian Amazon is being implemented under the ten-year Amazon Region Protected Areas (ARPA) Programme. As large as the entire US national park system, the network will represent all 23 Amazonian ecoregions. The world's largest tropical forest protected area, Tumucumaque National Park, has already been created under ARPA.
Partners include: World Bank; Global Environment Facility; Brazilian government; German Bank for Reconstruction (KfW)



powerful results



Working with business *Northeast Atlantic Shelf ecoregion*
 The aquaculture industry is being encouraged to locate farms away from protected areas, establish systems that prevent farmed fish from escaping, and use sustainable sources for fish feed.
Partners include: aquaculture industry (fish farms and fish feed suppliers)

Reconnecting transboundary ecoregions
Danube River Delta ecoregion
 A transboundary Lower Danube Green Corridor will help to reconnect fragmented floodplains in the Danube delta, following a Declaration signed by environment ministers of Romania, Bulgaria, Moldova and Ukraine. Management of the floodplains will optimize socio-economic benefits to local communities.
Partners include: the governments of Bulgaria, Moldova, Romania, and Ukraine

Finding solutions for communities
East Africa Marine ecoregion
 The first protected area created at the request of local communities, the Quirimbas Marine and Terrestrial Park in Mozambique was set up to address human/elephant conflicts and to improve local fisheries. The park also protects 11 coral islands, a range of forest types, and threatened populations of dugongs and marine turtles.
Partners include: Mozambique government

Protecting landscapes shaped by human activity
Mediterranean Forests, Woodlands, and Scrub ecoregion
 Protected cork oak (*Quercus suber*) forest landscapes in the Mediterranean provide livelihoods for local farmers, shelter threatened species such as the Barbary deer (*Cervus elaphus barbarus*) in Tunisia and the critically endangered Iberian lynx (*Lynx pardinus*) in Spain and Portugal, protect against desertification, and recharge aquifers.
Partners include: local NGOs and communities in Morocco, Portugal, Spain, and Tunisia



Bringing governments together
Sudd-Saharan Flooded Grasslands and Savannah ecoregion
 The governments of Cameroon, the Central African Republic, Chad, Niger, and Nigeria are implementing a model approach to sustainably conserve and manage Lake Chad and setting a precedent for a continent that is home to many of the 1 billion people lacking access to safe drinking water and proper sanitation.
Partners include: Global Environment Facility; Ramsar Convention on Wetlands; Lake Chad Basin Commission; the governments of Cameroon, the Central African Republic, Chad, Niger, and Nigeria

Fending off damage from climate change
 Health strategies are being tested for coral reefs. WWF is developing a protocol to enhance reef resilience and develop adaptation strategies to reduce vulnerability.
Partners: Buleleng Sub-district government; ReefCheck International; Indonesian Ministry of Marine Affairs and Fisheries

Safeguarding fisheries
 The recently created 6.5 million hectare marine area — will protect spawning grounds for southern elephant seal, wandering albatross, and southern blue whale.
Partners include: Australian government



The Danube River crosses ten countries. About 83 million people live in the basin and more than 20 million people depend directly on the Danube for drinking water. The basin also unifies and sustains a wealth of diverse cultures and traditions.

Building capacity

Russian Far East Temperate Forests ecoregion

Brigades have been trained and funded to patrol Russian Far East forests against poaching of the Amur tiger (*Panthera tigris altaica*) and illegal logging. For example, a new guide is available for customs staff in Russia on how to prevent illegal cross-border transports of timber.

Partners include: Russian government; Wildlife Conservation Society; other NGOs; USAID; timber-purchasing companies

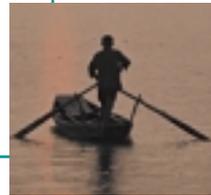


Protecting and managing river basins

Wetland ecoregions in China and Upper Yangtze Forest ecoregion

Over 200 new Ramsar Sites in China will conserve and sustainably use more than 20 million hectares of wetlands. And the doubling of protected giant panda habitat to over 330,000 hectares in the Qinling mountains will help safeguard the Yangtze watershed, which supplies water to 400 million people.

Partners include: Chinese government



Creating stable species populations

Terai-Duar Savannas and Grasslands ecoregion

Nepal's greater one-horned rhino (*Rhinoceros unicornis*) population has increased from less than 100 in one location in the 1960s to more than 600 rhinos in two locations. The project includes efforts to address poaching, capacity building, translocation of rhinos to create separate viable populations, and making linkages between 11 national parks in India and Nepal.

Partners include: King Mahendra Trust for Nature Conservation; Nepalese government; Biodiversity Conservation Network; local communities, organizations, and NGOs



Creating protected area networks

Various tropical and subtropical moist and dry broadleaf forest ecoregions in Asia

Conserving endangered large mammals also means protecting surrounding landscapes and addressing land-use practices. WWF's Asian Rhino and Elephant Action Strategy (AREAS) combines cutting-edge conservation biology with trade monitoring, socio-economic analysis, and policy advocacy to conserve landscapes and mammals, for example in India and Southeast Asia.

Partners include: TRAFFIC; range state governments; Wildlife Conservation Society; local communities; other NGOs

Climate change

... coral reefs to help make them more resilient to the effects of climate change. ... able protected area managers assess climate change impacts on coral reefs ... cope with limited global warming.

Partners include: Government; Bali Barat National Park Authority; Great Barrier Reef Marine Park; Science Institute for Oceanography

... Heard and McDonald Islands Marine Reserve — the world's largest fully protected ... grounds for commercial fish in Antarctic waters as well as habitat for southern elephant ... ern giant petrel. It will also help combat illegal fishing.

Partners include: Australian fishing industry



Terrestrial major habitat types

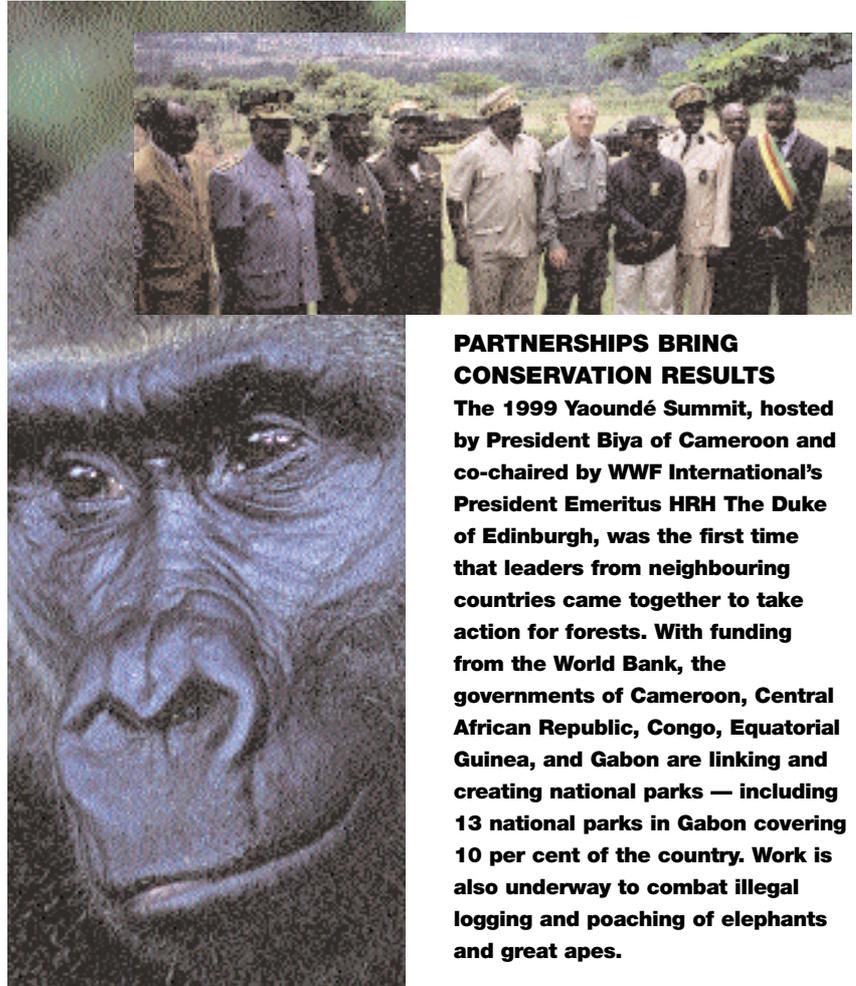
- Tropical & subtropical moist broadleaf forests
- Tropical & subtropical dry broadleaf forests
- Tropical & subtropical coniferous forests
- Temperate broadleaf & mixed forests
- Temperate conifer forests
- Boreal forests / taiga
- Tropical & subtropical grasslands, savannas & shrublands
- Temperate grasslands, savannas & shrublands
- Flooded grasslands & savannas
- Montane grasslands & savannas
- 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)

powerful results

THE MAP overleaf shows key examples of different projects in various Global 200 ecoregions. These projects range from creating new protected areas and increasing the numbers of flagship species, to managing natural resources, improving livelihoods, building capacity, and protecting natural areas from long-term threats.

All our projects are carried out in partnership with a broad range of different groups. These include indigenous people and local communities, global and local NGOs, universities and research institutes, local and national governments, park authorities, international organizations, development agencies, business groups, and industry.

With a vast range of conservation projects and partners in more than 100 countries around the globe, WWF is delivering powerful conservation results for people and nature.



PARTNERSHIPS BRING CONSERVATION RESULTS

The 1999 Yaoundé Summit, hosted by President Biya of Cameroon and co-chaired by WWF International's President Emeritus HRH The Duke of Edinburgh, was the first time that leaders from neighbouring countries came together to take action for forests. With funding from the World Bank, the governments of Cameroon, Central African Republic, Congo, Equatorial Guinea, and Gabon are linking and creating national parks — including 13 national parks in Gabon covering 10 per cent of the country. Work is also underway to combat illegal logging and poaching of elephants and great apes.



ECOREGION-WIDE RESULTS

In 1999, WWF initiated an ecoregional conservation approach in the East Africa Marine ecoregion with governments and other stakeholders. This aimed to identify priority seascapes for protection of biodiversity and proposed new marine protected areas to fill gaps in the system. From a total protected area coverage of 300,000 hectares when this process started, major new marine protected areas have since been added to almost double protected area coverage to 547,200 hectares. Furthermore, several additional new marine protected areas are in the pipeline.

partners

IN CONSERVATION

PROTECTED AREA work cannot be performed in isolation. WWF works with a broad range of partners who share our conservation vision:

INDIGENOUS PEOPLES, TRADITIONAL PEOPLES, AND LOCAL COMMUNITIES

The people living in and around protected areas are the first and most important partners for WWF's protected area work. We work with local communities, indigenous peoples, and traditional peoples to involve them in the planning, establishment, and management of protected areas, and to ensure that they share in the benefits arising from the protected area. Such 'bottom-up' initiatives are particularly important for many indigenous and traditional peoples, who recognize that protected areas can help preserve their culture, provide livelihoods, and at the same time protect biodiversity and ecosystem processes.

PRIVATE LANDOWNERS

Private landowners are increasingly becoming a fundamental stakeholder for nature conservation. In a number of countries, WWF works with private landowners to help set aside private reserves.

NON-GOVERNMENTAL ORGANIZATIONS

WWF works with many NGOs around the world, from local and



PROTECTING THE UNKNOWN

Only recently discovered, cold-water coral reefs may be extremely important breeding grounds for fish, and are under threat from bottom trawling, marine pollution, and oil and gas exploration. Working with WWF, Norway's scientific institutions have been instrumental in helping to secure protection of five of the country's cold-water coral reefs.

national groups to other international organizations, including IUCN – The World Conservation Union, TRAFFIC, Wildlife Conservation Society, Conservation International, The Nature Conservancy, Greenpeace, Friends of the Earth, CARE, Oxfam, the Alliance of Religions and Conservation (ARC), and other civil society groups. These collaborations range from implementing field projects and creating new protected areas to high-level advocacy and policy work.

SCIENTIFIC INSTITUTIONS

The scientific community is a key partner in helping to use the best available information for planning protected areas. This is particularly important for ecosystems that are not well studied but face immediate threats, such as deep-sea habitats like cold-water coral reefs.

GOVERNMENTS

WWF works with governments on a number of levels, from helping to establish protected areas, improve the management of existing ones, and secure their funding, to finding innovative and practical solutions to complex conservation issues. In addition, we work with governments on policy issues and facilitate negotiations between different governments and key stakeholders.

DEVELOPMENT AGENCIES

Conservation work is closely aligned with sustainable development and poverty reduction strategies. WWF has a close partnership with the World Bank on forest conservation and works with most bilateral and multilateral development agencies, including the Global Environment Facility (GEF), United States

“WWF is a good conservation partner because they have taken the lead in addressing the catastrophic depletion of marine ecosystems, help build consensus on dealing with the policy implications, and back their positions up with good science.”

Daniel Pauly, Professor of Fisheries, University of British Columbia



WORKING TOGETHER

Working with NGOs, 11 governments have created a 2.8 billion hectare network of whale sanctuaries in the South Pacific, demonstrating the power of regional cooperation.

Agency for International Development (USAID), Swedish International Development Assistance (SIDA), Danish International Development Agency (DANIDA), German Federal Ministry for Economic Cooperation and Development (BMZ), German Bank for Reconstruction (KfW), Dutch Directorate General for International Cooperation (DGIS), the European Commission, the Asian Development Bank, and the African Development Bank.

INTERNATIONAL ORGANIZATIONS

WWF works closely with numerous international organizations to develop tools for establishing and managing protected areas. For example, we work closely with IUCN's World Commission on Protected Areas to develop best practice guidelines for managers. With the United Nations Environment Programme's World Conservation Monitoring Centre we are developing the first global map of marine protected areas, and with the United Nations Development Programme we cooperate on many nationally based activities to support



WORKING WITH BUSINESS AND INDUSTRY

Working with WWF, Sveaskog, Europe's largest forest owner, has committed to set aside 20% of its 3.5 million hectares of productive forest to be protected or managed with conservation as the first priority. The 20% represents the level of protection WWF deems necessary in boreal forests to maintain biodiversity on a large scale. The company's conservation programme will also help protect and restore the ecological processes of river systems of northern and southern Sweden.

park establishment and management. Protected areas and their effective management form part of the targets and work programme of the World Bank-WWF Forest Alliance. Other partners include UNESCO and the International Whaling Commission.

BUSINESS AND INDUSTRY

Business and industry have a pivotal role to play in protected areas. Changes in corporate practice are essential for tackling conservation

challenges like climate change, moving to renewable energy systems and clean technologies, phasing out toxic chemicals, and ensuring the sustainable use of natural resources such as timber, fish, and fresh water.

WWF works with companies, from multinational corporations to local businesses and cooperatives, that demonstrate a real commitment to the principles of sustainability and are prepared to adopt challenging targets for change. Our approach is constructive, collaborative, solutions-oriented, and forward-looking: we work with companies to help them change the way they do business.



WORKING IN THE INTERNATIONAL ARENA

HE Chief Emeka Anyaoku, President of WWF International, and Kofi Annan, UN Secretary-General, at the World Summit on Sustainable Development, held in Johannesburg, South Africa, in 2002.

rewarding

CONSERVATION EFFORTS

OUR PARTNERS invest a lot of time, effort, and money to achieve conservation goals.

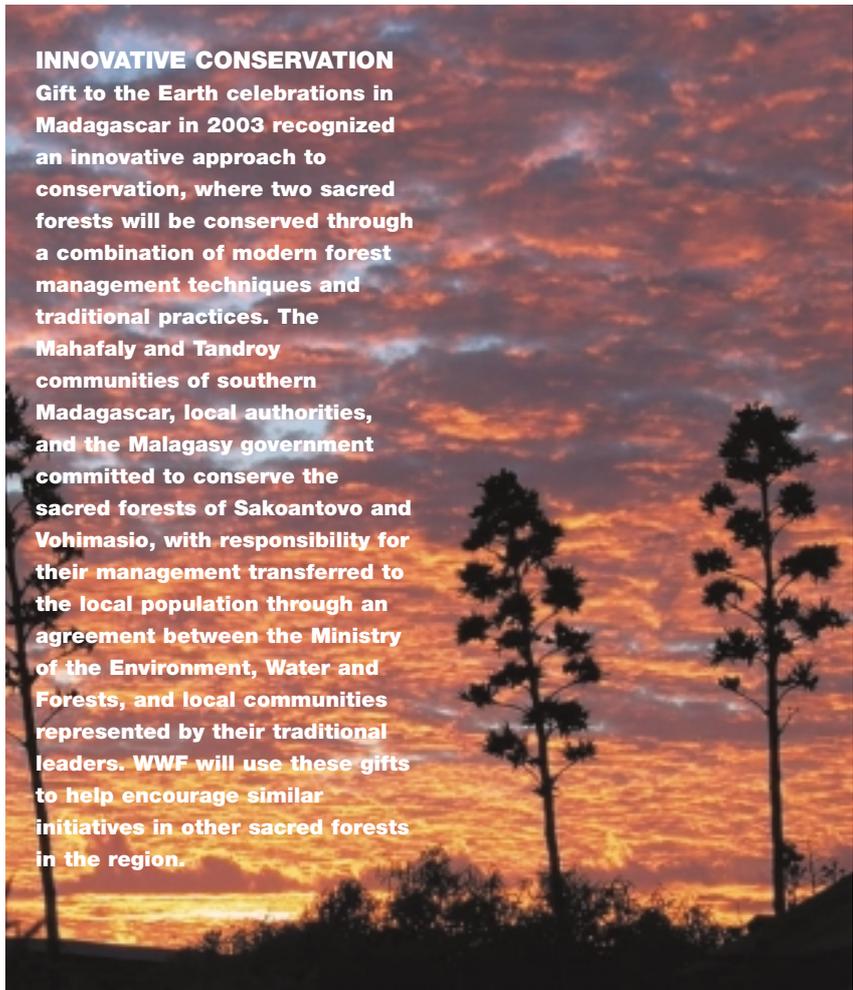
To recognize this, WWF has developed the Gift to the Earth scheme, where governments, companies, and communities are publicly recognized for their contributions to conservation.

The process for public recognition is not usually spontaneous, but is developed through discussion and negotiation with the potential recipient. This helps ensure that new protected areas are set up with scientific credibility, stakeholder involvement, integration into a wider landscape mosaic, and funding.

In partnership with the Alliance of Religions and Conservation (ARC), this mechanism has been extended by WWF to sites of spiritual or religious importance which can now be recognized as Sacred Gifts.

Since the launch of this innovative scheme in 1996, WWF has recognized and celebrated 88 Gifts to the Earth all over the world. These include new marine protected areas in Australia, the Azores, Malaysia, Mozambique, Norway, and the United Arab Emirates; freshwater protected areas in Bolivia, Chad, China, Mongolia, and Zambia; and forest protected areas in Canada, Gabon, Madagascar, Russia, and Turkey.

INNOVATIVE CONSERVATION
Gift to the Earth celebrations in Madagascar in 2003 recognized an innovative approach to conservation, where two sacred forests will be conserved through a combination of modern forest management techniques and traditional practices. The Mahafaly and Tandroy communities of southern Madagascar, local authorities, and the Malagasy government committed to conserve the sacred forests of Sakoantovo and Vohimasio, with responsibility for their management transferred to the local population through an agreement between the Ministry of the Environment, Water and Forests, and local communities represented by their traditional leaders. WWF will use these gifts to help encourage similar initiatives in other sacred forests in the region.



It s an excellent idea to protect our forests through community protected areas. If the felling of trees continues, Madagascar s forests will be entirely destroyed and there will be nothing left for us except bare earth.

Avimary, a Mahafaly Prince from Madagascar

challenges



AND FUTURE WORK

COMBATING LONG-TERM THREATS

Bangladesh's Sundarbans mangrove forests save the country an estimated US\$6 million a year in sea defence costs.

IF THE LAST CENTURY WAS the time of protected area creation, the next hundred years must be a time of completing networks, paying for and organizing their management, integrating them into wider society, and protecting them against global threats.

This will be no easy task, and the scale of the challenges should not be underestimated.

Important ecoregions remain underprotected, and many protected areas are isolated and fragmented.

Effective protection remains frustratingly rare. Many protected

areas exist in name only so-called paper parks or do not have enough resources to handle immediate threats such as illegal activities (for example, fishing, land clearing, mining, and poaching), diversion of water, pollution, uncontrolled tourism, or longer-term problems such as climate change.

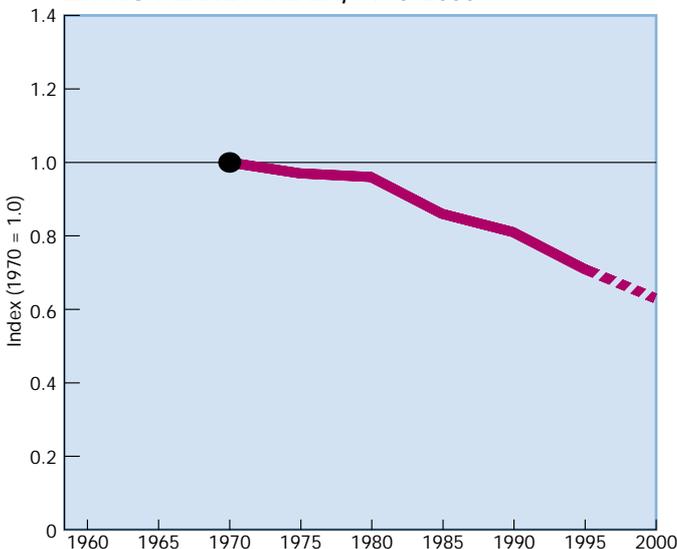
In addition, there are worrying signs of government and donor fatigue. Caught up in the immediate problems of economic downturn, civil unrest, or war, government aid agencies have diverted their

attention away from protected areas, while foundations and private donors have reduced their contributions.

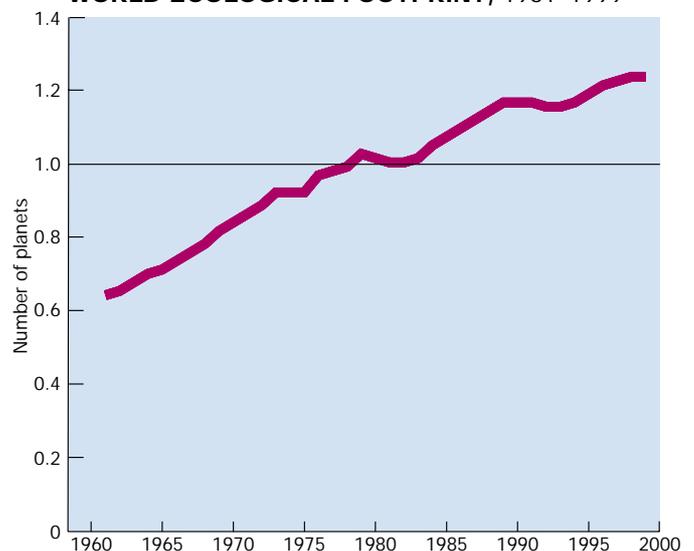
WWF sees four major areas for future protected areas work:

- 1 Closing the gaps in protected area networks
- 2 Improving management of protected areas
- 3 Securing sustainable financing for protected areas
- 4 Safeguarding protected areas against immediate and long-term global threats

LIVING PLANET INDEX, 1970–2000



WORLD ECOLOGICAL FOOTPRINT, 1961–1999



DECLINING BIODIVERSITY AND INCREASED HUMAN CONSUMPTION

Declining biodiversity, as measured by WWF's Living Planet Index, and unsustainable consumption of natural resources by humans, as measured by WWF's Ecological Footprint, show the urgent need to protect our planet's remaining natural areas and to ensure that all human activities become sustainable. Protected areas are the foundation for conserving biodiversity, especially when established in viable, ecologically representative networks.

The Living Planet Index — derived from trends in populations of hundreds of animal species — has declined by about 35% over the past 30 years: a quantitative confirmation that the world is currently undergoing a very rapid loss of biodiversity comparable with the great mass extinction events that have previously occurred only five or six times in the Earth's history. The world's Ecological Footprint has steadily increased. In 1999, the average Ecological Footprint was 2.3 hectares per person — 20% above the Earth's biological capacity of 1.9 hectares per person. In other words, humanity's consumption exceeds the planet's capacity to sustain renewable resources.

future work

1. COMPLETING PROTECTED AREA NETWORKS



MORE TO DO
Freshwater ecosystems are underrepresented in current protected area networks.

PROTECTED AREAS are the backbone of any policy for *in situ* biodiversity conservation. To fulfil this function, a representative network of protected areas must be completed, spanning the planet to safeguard the full range of terrestrial, freshwater, and marine biodiversity. At the moment this Web of Life has major gaps, with many important ecosystems omitted. For example, only 2 per cent of lake systems, 1 per cent of grasslands, and less than 1 per cent of marine and coastal systems are currently protected.

Completing ecologically representative networks will need:

LARGE-SCALE CONSERVATION STRATEGIES

There is an urgent need to identify and close gaps in protected area networks, with a particular focus on underrepresented ecosystems. Ecoregion conservation strategies are useful tools for this, such as those developed by WWF for the world's most important areas for biodiversity, the Global 200 ecoregions. Such strategies combine protection, good management, and restoration of landscapes. They also integrate protected area networks into

broader landscape mosaics that include buffer zones around protected areas, corridors between protected areas, and sustainable land uses outside protected areas.

BROADER SUPPORT FOR PROTECTED AREAS

A crucial aspect of creating protected area networks is building broader support for protection. One way to achieve this is to promote the social and economic benefits of protected areas:

- **Performing environmental services** e.g. purifying drinking water and safeguarding soil
- **Maintaining natural resources** e.g. fisheries, medicinal plants, timber, and fresh water
- **Sheltering local cultures and spiritual sites** e.g. refuges for indigenous and traditional peoples
- **Mitigating long-term global threats** e.g. mangroves buffering against increased storm activity and rising sea levels due to climate change
- **Reducing border tensions** e.g. through the Peace Parks initiative
- **Providing recreational areas** e.g. individual visits and ecotourism initiatives
- **Reducing poverty** e.g.

providing sustainable livelihoods and food and water security

- **Providing economic benefits** e.g. marine protected areas provide benefits to both commercial and artisanal fisheries
- **Maintaining genetic resources** e.g. with potential future benefits to crop breeding and medicine.

These benefits need to be better quantified and understood. In addition, the economic value of these benefits needs to be better recognized as a contribution to the costs of conservation (see Securing sustainable funding, opposite). Building support is especially important for habitats that are currently not well regarded, such as swamps and marshes, and areas outside national jurisdiction, such as the high seas.

BETTER INVOLVEMENT OF PEOPLE

Local communities and indigenous peoples need to be adequately involved in the planning and establishment of protected areas. We also need to work to generate local pride in living in an area of environmental importance, just as people are proud of historically important sites.



2. IMPROVING MANAGEMENT

MANAGEMENT EFFECTIVENESS
WWF and IUCN's management guidelines for marine protected areas are being tested around the world.

EFFECTIVE management is crucial if protected areas are to fulfil their functions. Many protected areas are under threat and lack good management. Improved management requires:

MANAGEMENT STANDARDS

Protected areas need agreed standards. Systematic assessment of management effectiveness should be integrated into all protected areas through international instruments. Management must remain flexible and responsive to local realities.

GOOD GOVERNANCE

The creation and management of protected areas takes place amongst a variety of stakeholders, traditions, structures, and processes. Poor governance can lead to conflicts over legitimacy and may result in degradation. Appropriate power structures, decision-making processes, and stakeholder involvement are fundamental to ensure equity, accountability, and performance of protected areas.

CAPACITY BUILDING

Many park authorities, government

officials, and local people and managers do not always have adequate capacity to appropriately manage or reduce threats. Capacity building is thus essential for effective management of protected areas.

INVOLVING MULTIPLE STAKEHOLDERS IN MANAGEMENT

The role of local communities and indigenous people needs to be extended to the management of protected areas. These people also need to share in benefits arising from protected areas for the long-term success of the area.

3. SECURING SUSTAINABLE FUNDING

SUSTAINABLE financing mechanisms are fundamental to the survival of protected areas. This can be achieved through formal recognition, protection, and funding of national and international systems of protection under Annex 1 of the Convention on Biological Diversity.

As well as support from governments, development agencies, and other donors, the economic

benefits of protected areas need to be recognized as a way to offset conservation costs. Other mechanisms are needed, such as direct payments for environmental services like clean water. Visitor charges or ecotourism can help. WWF promotes trust funds and debt-for-nature swaps as useful tools to achieve sustainable funding. All these are additional to allocations from national budgets, upon which protected areas will always depend.

NEW WAYS TO FUND PROTECTED AREAS

The bottling industry is the major user of sub-surface water from the Sierra de las Minas Biosphere Reserve in Guatemala. WWF and Guatemalan NGO Fundación Defensores de la Naturaleza established a 'Water Fund' to channel companies' user fees to the managers who protect the reserve and its water supply.



future work

4. SAFEGUARDING AGAINST GLOBAL THREATS

THE POTENTIAL impacts of long-term global threats must be factored into protected area planning and management. These threats include conversion of natural habitat and diversion of water for agriculture and other human use, a growing human population, the pervasive spread of toxic man-made chemicals, and climate change.

Novel strategies will particularly be needed to ensure that protected areas are robust enough to resist the

impacts of climate change. Global warming is already happening average global temperatures are almost 1...C above pre-industrial times. An increasing number of extreme weather events, such as storms and droughts, and increasing temperatures will place natural habitats under increasingly high levels of stress. According to WWF's *Habitats at Risk* report, more than 80 per cent of the ecoregions analysed will suffer species extinctions due to climate change, and some unique ecosystems will lose up to 70 per

cent of the habitats on which their biodiversity depends.

One way to adapt protected areas to global warming impacts is to have flexible boundaries for when habitats start to move. Another is to reduce non-climate threats, thereby reducing the overall stress that the habitat is under. Such damage-control strategies must always be undertaken in conjunction with efforts to reduce emissions of greenhouse gases, in order to keep the increase in average global temperatures well below 2...C.

LANDSCAPES AT RISK

The Arctic is an important indicator of the Earth's global well-being. Not only is this region expected to be amongst those most affected by climate change, but many arctic animals are contaminated with persistent, bio-accumulative, and endocrine-disrupting chemicals used in the manufacture of products in other parts of the world. WWF is working with partners across the Arctic, including the Arctic Council, the Norwegian Polar Institute, the Polar Bear Specialist Group and the Global Resource Information Database (GRID), a division of the United Nations Environment Programme, to monitor the impacts of climate change and toxic pollution in the Arctic and to help make credible, science-based knowledge understandable to the public and decision-makers working towards a sustainable environment.





Written by Nigel Dudley and Sue Stolton
Equilibrium
23 Bath Buildings
Bristol BS6 5PT
UK
Tel/fax +44 (0)117 942 8674
Edited by Emma Duncan

Published in September 2003 by WWF-World Wide Fund For Nature (Formerly World Wildlife Fund), Gland, Switzerland, also known as World Wildlife Fund in Canada and the United States of America. Any reproduction in full or in part of this publication must mention the title and credit the above-mentioned publisher as the copyright owner.

© 2003 WWF. All rights reserved.

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

Designed by Price Watkins
Printed by Swaingrove Imaging
Bury St Edmunds, UK
using vegetable oil-based inks on 100% recycled paper

A **Banson** production
27 Devonshire Road
Cambridge CB1 2BH
UK

Photographs

Front cover: background WWF-Canon/Kevin Schafer; insets left to right WWF-Canon/Edward Parker; WWF-Canon/Martin Harvey; WWF-Canon/Juan Pratginestos.

Back cover: insets left to right WWF/John E. Newby; WWF-Canon/Martin Harvey; WWF-Canon/Michel Gunther.

Inside front cover: background WWF-Canon/Gerald S. Cubitt; lower WWF-Canon/Michel Gunther.

Page 1: upper WWF-Canon/Cat Holloway; lower left WWF-Canon/Kevin Schafer; lower right WWF-Canon/Chris Marais.

Page 2: upper WWF-Canon/Chris Martin Bahr; lower WWF/Javier Ordóñez.

Page 3: no pict file.

Page 4/5: upper right WWF-Canon/Roger LeGuen; centre left to right WWF-Canon/Edward Parker; WWF-Canon/Jørgen Freund; WWF-Canon/Martin Harvey; lower left WWF-Canon/WWF-Spain/Luis Suárez; lower right WWF-Canon/Martin Harvey.

Page 6: WWF-Canon/Mike R. Jackson.

Page 7: Kanindé - Associação de Defesa Ambiental.

Page 8/10: clockwise from extreme top right WWF-Canon/Michel Gunther; WWF-Canon/Vladimir Filonov; WWF-Canon/Michel Gunther; WWF-Canon/A. Christy Williams; WWF-Canon/Michel Gunther; lake chad need credit; WWF-Canon/Edward Parker; WWF-Canon/Vin J. Toledo; WWF-Canon/ Gustavo Ybarra; WWF-Canon/Jo Benn.

Page 11: upper WWF-Canon/Claude Martin; centre WWF-Canon/Martin Harvey; lower WWF-Canon/Edward Parker.

Page 12: WWF-Canon/Erling Svensen.

Page 13: upper WWF-Canon/Cat Holloway; centre Sveaskog; lower WWF-Canon/Chris Marais.

Page 14: Richard Hamilton.

Page 15: WWF-Canon/Edward Parker.

Page 16: need credit.

Page 17: upper WWF-Canon/Anthony B. Rath; lower need credit.

Page 18: WWF-Canon/Jack Stein Grove.

WWF is one of the world's largest and most experienced independent conservation organizations with almost 5 million regular supporters and a global network active in more than 100 countries.

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

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

**WWF International
Avenue du Mont-Blanc
1196 Gland
Switzerland**

**Tel: +41 22 364 91 11
Fax: +41 22 364 90 45**





WWF — together with partners in government, industry, local and international NGOs, development agencies, local communities, and indigenous people — working to turn its vision into reality.

...a global network of well-managed protected areas, sustaining biodiversity and natural resources across entire ecosystems, helping to reduce poverty, providing environmental services and resilience to long-term change, protecting threatened human cultures and communities, and giving space for both wildlife and people...

