



WWF®

for a living planet®

The background of the entire page is an aerial photograph of a lush, green landscape. A winding river flows through the terrain, which is covered in dense vegetation and patches of lighter green. In the bottom right corner, a large, stylized leaf graphic is overlaid, composed of several overlapping leaf shapes in shades of green and grey. The text 'A Roadmap for a Living Planet' is centered within the white space of the largest leaf shape.

A Roadmap for a Living Planet

“We have only this generation to get sustainability and the environment right. We all need to work together as never before to get there.”

James P. Leape

Director General, WWF International

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Beautiful. Essential. But threatened.

What do you see when you think of nature? A rainforest of towering green, inhabited by whooping monkeys, flamboyant birds, and bustling beetles? A vast savannah where lions stalk, giraffes browse, and elephants trumpet? A coral reef with darting fish, colourful starfish, and waving sea anemones? Or perhaps your local pond, where dragonflies zip, frogs croak, and reeds sway?

There are countless other stunning examples – and all are unique to one planet. Ours.

The diversity of life on Earth is not simply something to marvel over – it's also vital for our own health and livelihoods. Plants, animals, fungi, and microorganisms form a complex, interconnected web of ecosystems and habitats that provides our life support system. They give us clean water, breathable air, food, medicine, energy, and more. We cannot easily survive without them.

There's a problem though. People are already using nearly 30 per cent more natural resources than the Earth can replenish and our activities are drastically changing the planet's climate. As a result, biodiversity is under threat – and the life support system is starting to break down.

Millions of people are already feeling the consequences. Around the world, in rich and poor countries alike, people are facing uncertainties over food security and water availability, and increased vulnerability to natural disasters and diseases.

Things will get much worse if we keep going the same way. Under a 'business-as-usual' scenario, by 2050 people are predicted to be using twice as many natural resources than the Earth can replenish. If this happens, exhaustion of natural resources and large-scale ecosystem collapse become increasingly likely. 'Business-as-usual' will also lead to dangerous climate change, further threatening biodiversity as well as people.

Left: African elephant, Etosha National Park, Namibia

Below: Fynbos flowers, South Africa





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The challenge

The Earth is at a critical point where the decisions and actions taken by one species – ours – will determine the future of all life. In order to survive and prosper, we must urgently change our course towards a healthy planet where people and nature thrive in a stable environment, now and for generations to come.

The only way to ensure this is to preserve biodiversity and lighten humanity's impact on natural habitats – starting right now.

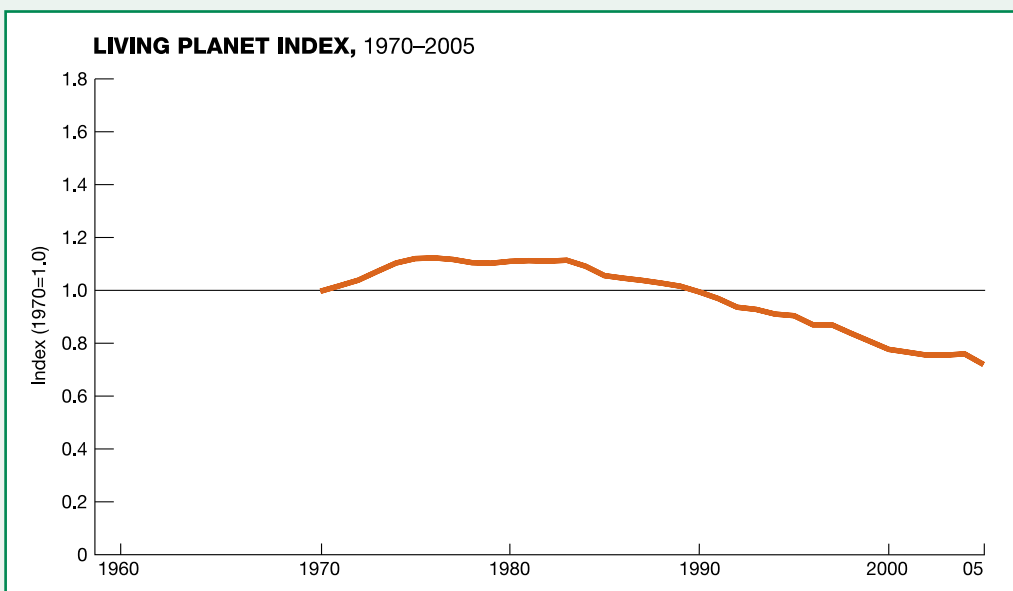
Bengal tiger

What will the future be?

Two indicators developed by WWF clearly show the challenge we face – the Living Planet Index and the Ecological Footprint.

The Living Planet Index measures trends in biodiversity and is a monitor of ecosystem health. This index has fallen by about 30 per cent since 1970, indicating that natural ecosystems are being degraded at a rate unprecedented in human history.

The Ecological Footprint is a monitor of human demand on ecosystems (see page 8). Humanity's ecological footprint has steadily increased over the past few decades, and since the late 1980s has exceeded the capacity of ecosystems to replenish natural resources. This is equivalent to a business spending more than it earns – clearly not sustainable.



WWF's response

WWF has embarked on a bold and innovative approach to achieve this enormous challenge in cooperation with our many diverse partners.

Our global conservation framework is a science-based plan, a detailed way forward for catalyzing change on a large scale. It uniquely combines traditional conservation with work to address the global dynamics driving biodiversity loss and humanity's unsustainable use of natural resources. It focuses efforts on the most important places, species, and issues, and integrates this work from the local level to the global.

It also taps into the enormous power we all have – as consumers, local community members, landowners, politicians, policy makers, business and industry leaders, development and conservation workers, farmers, and fishers – to protect biodiversity and steer the world towards sustainability.

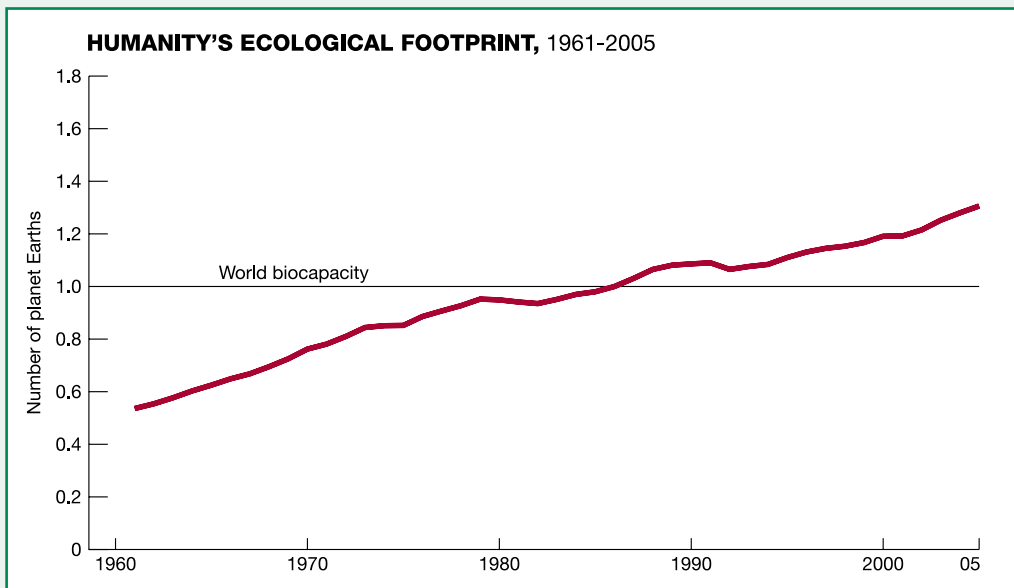
This brochure outlines our framework, and explains how we plan to achieve it in cooperation with our many vital partners. We invite you to join us on our mission of building a future where people live in harmony with nature – a Living Planet.

Flooded forest, Rio Negro, Brazil



The choices we make now will decide the future. Whether we go on as usual – and see ecosystems collapse and the planet's ability to support people crumble. Or whether we make bold changes to reverse the declining Living Planet Index and our growing ecological footprint – and live in sustainable societies in harmony with nature.

For more information see WWF's Living Planet Report 2008



1. Saving biodiversity



2050

Biodiversity Goal

By 2050, the integrity of the most outstanding natural places on Earth is conserved, contributing to a more secure and sustainable future for all

WWF has two approaches for conserving biodiversity: conserving the Earth's most outstanding places and conserving species that are particularly important for their habitat or for people. Strategically focusing efforts on these global priority places and species will also help conserve the many other species which share these habitats and/or are vulnerable to the same threats.

Fishers on the Dzanga River, Central African Republic

Haven't lots of national parks been created already?

Over the last 130 years, more than 100,000 protected areas (national parks, sanctuaries, reserves, and the like) have been established. They cover around 12 per cent of the Earth's surface – an area larger than India and China put together.

So why are the world's natural places still under threat? There are several reasons.

One is that many protected areas are not well managed. Another is that many habitats are not well represented in the current network of protected areas, such as marine areas, marshes and swamps, mangroves, grasslands, and temperate forests. Less than 1 per cent of marine areas are protected, for example.

Several long-term global threats also affect protected areas, like climate change, continued conversion of natural habitat, and over-extraction and diversion of water from rivers.

And there's not always enough support from governments, development agencies, business and industry, and sometimes local communities to ensure the long-term success of protected areas.

So while we've come a long way, there's still more to do to ensure that enough of our planet's ecosystems and habitats are properly conserved.

Conserving the Earth's most outstanding places

2020

Biodiversity Goal - Places

By 2020, biodiversity is protected and well managed in the world's most outstanding natural places

We can conserve most of life on Earth by conserving the most exceptional ecosystems and habitats – places that are particularly rich in biodiversity, places with unique animals and plants, places like no other.

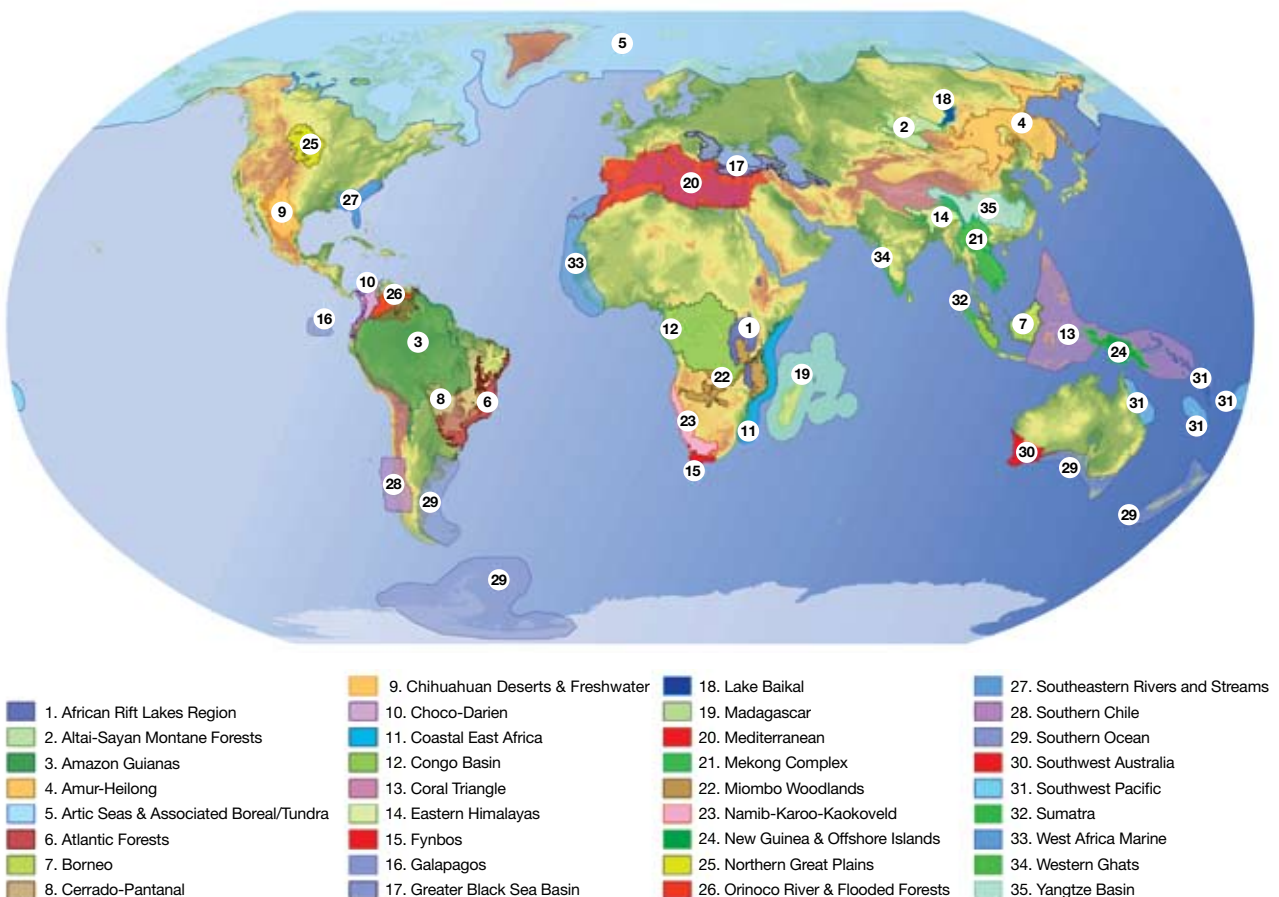
We are focusing efforts on 35 global priority places around the world – terrestrial, freshwater, and marine ecoregions scientifically identified as either being home to irreplaceable and threatened biodiversity, or representing an opportunity to conserve the largest and most intact representative of their ecosystem. They include:

- The most intact remaining rainforests: Amazon, Congo Basin, New Guinea
- The most species-rich rainforests: western Amazon, northwest South America
- The richest places for rare endemic plants and animals: New Caledonia, Fiji, Vanuatu, South Africa, southwest Australia, Madagascar
- The richest large river systems and the world's oldest river: Amazon, Orinoco, Congo, Mekong, Yangtze, and the New River in southeast USA

- The most unique and diverse deserts: Namib-Karoo-Kaokoveld Deserts, Chihuahuan Desert
- The most diverse tropical grasslands, savannas and woodlands: central and eastern Africa, central and eastern South America, North America
- The tallest grasslands filled with the highest densities of tigers and rhinos: Eastern Himalayas
- The most outstanding montane areas: Himalayas, Albertine Rift
- The most diverse coral reefs: Coral Triangle, Great Barrier Reef, New Caledonia, Fiji, East Africa
- The most productive seas: Arctic, Southern Oceans, West Africa

We will also continue to work in a limited number of regional priority areas that are locally important and have a long history of WWF conservation success: the Alps, Baltic, Gulf of California, Indus Delta, Mesoamerican Reef, and Yellow Sea.

WWF global priority places



Conserving some of the Earth's most important species

2020

Biodiversity Goal - Species

By 2020, populations of the most ecologically, economically and culturally important species are restored and thriving in the wild

Conservation efforts are also needed for threatened species whose survival cannot be guaranteed by conserving their habitat alone. WWF is focusing such efforts on species that are of special importance – either for their ecosystem (e.g., species forming a key element of the food chain, species which help the stability or regeneration of habitats, or species that demonstrate broader conservation needs) or for people (e.g., species important for the health and livelihoods of local communities, species exploited commercially, or species that are important cultural icons).

We have identified 36 such priority species or species clusters, which fall into two groups: flagship species and footprint-impacted species. They include:

- Species which help ensure the long-term survival and health of many threatened habitats and their associated species: e.g., elephants, reef-building corals
- Top predators: e.g., Asian big cats, polar

bears, sharks, tunas, dolphins, porpoises

- Species that symbolize key global threats to biodiversity: e.g., marine turtles, dolphins, porpoises, sharks, and albatross (bycatch); polar bear (climate change); tigers, elephants, rhinos, marine turtles (illegal wildlife trade)
- Some of the world's most-threatened large mammals: e.g., mountain gorilla, Cross River gorilla, snow leopard, Amur leopard, Javan rhino, Sumatran rhino, Irrawaddy river dolphin, North Atlantic right whale
- National emblems and global icons: e.g., tigers, giant pandas, elephants, gorillas, orangutans, whales, marine turtles, kangaroos
- Humankind's closest relatives: great apes, especially the bonobo
- Species that are critical for the health, livelihoods, and economic security of local communities: e.g., ginseng, Korean cedar pine, humphead wrasse
- Species that form the basis of, and are threatened by, significant commercial activity and inadequately regulated or unsustainable global trade: e.g., threatened fish species like cod, tuna, salmon, and sturgeon; threatened hardwood timber species like bigleaf mahogany and ramin

Right: African elephant, Kenya

Below: Coral reef, Fiji





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Priority species

Flagship species

Provide a focus for raising awareness and stimulating action and funding for broader conservation efforts

- African elephant
- African great apes
- African rhinos
- Asian big cats
- Asian elephant
- Asian rhinos
- Giant panda
- Marine cetaceans
- Marine turtles
- Orangutans
- Polar bear
- River dolphins
- Threatened kangaroos

Footprint-impacted species

Threatened primarily by overexploitation (e.g., unsustainable hunting, fishing, or logging), either directly or through the exploitation of another species

- African teak
- Alaskan pollock
- Argali wild sheep
- Asian tortoises and freshwater turtles
- Bigleaf mahogany
- Cacti
- Cod
- Corals
- Cork oak
- East African cichlids
- European and Pacific salmon
- Ginseng
- Humphead wrasse
- Korean cedar pine
- Pelagic sharks
- Ramin
- Reef sharks
- Saiga antelope
- Southern Ocean albatrosses
- Sturgeon and paddlefish
- Swordfish and other bill-fish
- Tibetan antelope
- Tunas

Why cactus and cod?

The plight of polar bears, great apes, pandas, and other large mammals is generally well known, at least in industrialized countries. They are often viewed as charismatic species, and form icons or symbols for a defined habitat or environmental cause.

But most people don't stop to consider whether the fish they eat, the ornamental plants they buy, or the herbal tea they drink comes from a threatened or endangered species, or whether taking it from the wild harmed its habitat or another species.

Most people also don't realise just how many plants and animals are harvested from the wild each year: it adds up to hundreds of millions from thousands of species.

Most of this trade is legal. But clearly, the huge numbers of plants and animals involved means this trade has the potential to be very damaging if it is not regulated to ensure it is kept at sustainable levels. And illegal wildlife trade is a major threat to many species so it is essential to put more effort into enforcement.

So that's why we're also focusing on cacti and cod, and other species impacted by exploitation – to make sure that these, and all other species involved in wildlife trade, are harvested sustainably and in a way that doesn't affect other species or damage the wider ecosystem.

2. Reducing humanity's ecological footprint



2050

Footprint Goal

By 2050, humanity's global footprint stays within the Earth's capacity to sustain life and the natural resources of our planet are shared equitably

2020

Footprint Goal

By 2020, humanity's global footprint falls below its 2000 level and continues its downward trend, specifically in the areas of:

- Energy/carbon
- Commodities (crops, meat, fish and wood)
- Water

Artisanal pirogue with local fishers passing European trawler in their fishing grounds, Senegal

Calculating humanity's ecological footprint

The ecological footprint is a way to monitor our impact on natural habitats and ecosystems. It measures how much land and water is needed to provide the resources people use and to absorb all the waste we produce.

For example, for every tonne of fish we consume, we need 25 hectares of fishing grounds. For every cubic metre of timber, we need 1.3 hectares of forest. And for every tonne of CO₂ we release by burning fossil fuels, we need 0.35 hectares of forest to absorb it.

The Earth has about 12 billion hectares of bioproductive land and water – cropland, pasture, forest, fisheries, and land to build on – that can supply us with food, fibre (like wool and wood pulp), and timber; absorb our CO₂ emissions; and provide space for houses, roads, factories, and other

infrastructure. Leaving aside a 10 per cent allowance for wilderness and wildlife, this gives about 2 hectares for every man, woman, and child.

The footprint of people in some countries is far less than this. But in the industrialized world, it's much higher. The footprint of the average American is nearly 10 hectares, while that for the average EU citizen is around 6. The only way everyone could consume this high level of natural resources is if we had an extra two, three, or even four Earths. Clearly, we don't.

That's why we need to find ways to maintain a high standard of living while using far fewer natural resources – getting our footprint down to 'One Planet Living'.

We are already using nearly 30 per cent more natural resources than the Earth can replenish and releasing far more CO₂ into the atmosphere than ecosystems can immediately reabsorb – leading to degraded ecosystems and the very real possibility of dangerous climate change.

People have changed the Earth's ecosystems more rapidly and extensively in the past 50 years than in any other period of human history. These changes have already degraded almost two-thirds of the ecosystems on which we depend for everything from food to building materials, and caused the irreversible loss of many habitats and species.

The main drivers of this are our huge population increase over this time and, with it, our vastly increased use of land and natural resources. We are already using nearly 30 per cent more natural resources than the Earth can replenish and releasing far more CO₂ into the atmosphere than ecosystems can immediately reabsorb – leading to degraded ecosystems and the very real possibility of dangerous climate change. And both our population and our consumption continue to grow.

WWF is therefore working to reduce humanity's ecological footprint – the amount of land and natural resources needed to supply our food, water, fibre, and timber and to absorb our CO₂ emissions. We are specifically focusing on six footprint areas that we believe need addressing most urgently:

- Carbon
- Cropland (for food, fibre, and biofuel crops)
- Grazing land
- Fishing
- Forest (for timber, paper, pulp, and fuel wood)
- Water

It's not about turning back the clock for how we live or preventing countries or communities from developing. Instead, it is about implementing new ways of growing crops, managing fisheries and forests, generating energy, and dealing with waste. The aim is that everyone lives within the Earth's capacity to sustain people and nature, and has equitable access to, and use of, natural resources.

Already a reality

It might seem impossible to reduce the huge footprint of industrialized countries without sacrificing the comforts and advantages of a modern, mobile lifestyle. But this is not the case.

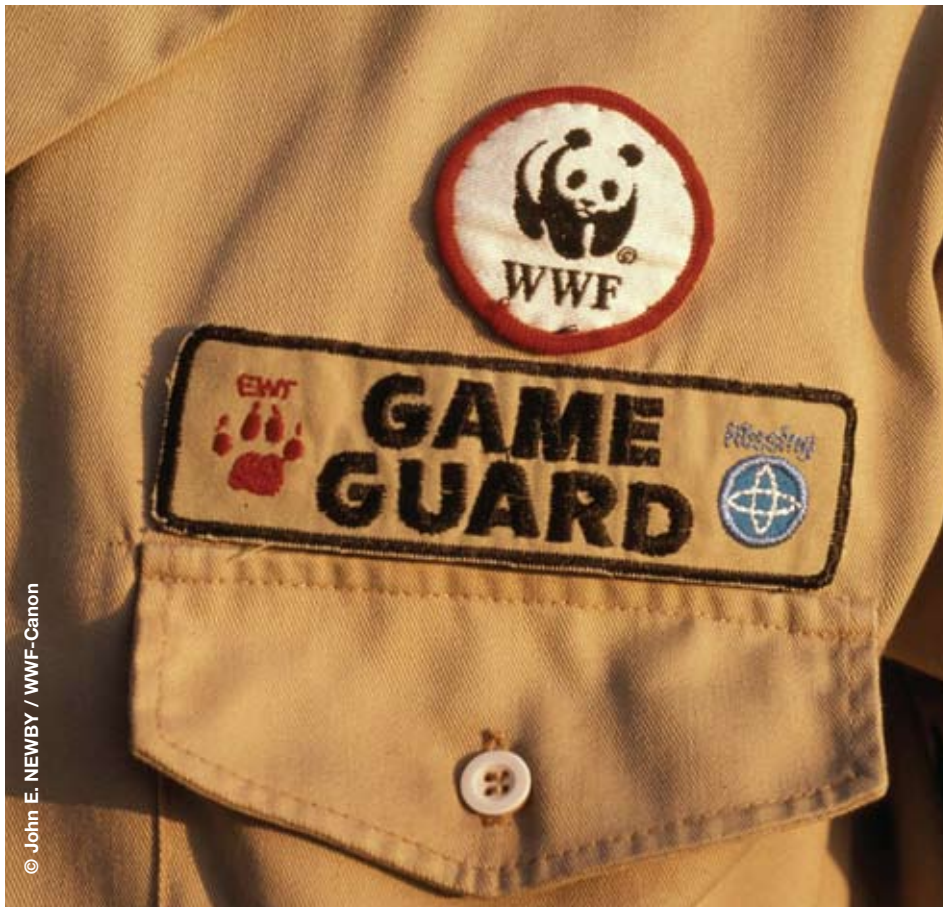
One London housing development has halved the ecological footprint of an average Londoner – and the people living there didn't need to change a thing. The homes were built with reclaimed steel and timber from responsibly managed forests. They are also energy efficient, needing only 10 per cent of the heating of regular houses. Rainwater is harvested and sewage water is recycled. Hot water and electricity are provided by solar panels and an onsite combined heat and power plant running on tree surgery waste.

It doesn't stop there. Residential, business, and tourist developments in Europe, North America, China and South Africa – and even the London 2012 Olympics and a whole new city in Abu Dhabi – have similarly embraced WWF's One Planet Living concept for a more sustainable future.

Solar power station, Australia



3. Tackling threats and drivers



© John E. NEWBY / WWF-Canon

WWF's priority places and species face a range of direct and indirect threats. These include clearing of land for agriculture, building of roads and houses, introduction of invasive species, mass tourism, wildlife trade, pollution, and climate change.

Our conservation work addresses these threats directly. However, this is not enough to conserve biodiversity and reduce humanity's ecological footprint. We also need to tackle the drivers behind these threats – the social, economic, and political reasons why these threats exist in the first place.

There are many such drivers, and they are complex and interlinked. However, five are particularly relevant at the global level to natural resource overexploitation, pollution, and climate change – and hence to WWF's twin goals of conserving biodiversity and reducing humanity's ecological footprint.

WWF Game Guard, Namibia

How drivers work

It's easy to see how, for example, a huge tourism resort could threaten an as yet undeveloped coastline, or how poaching is a threat to tigers. WWF and many other groups have had much success in conserving particular places and species by fighting inappropriate and even illegal developments and activities such as these.

But to ensure long-term biodiversity conservation and sustainable footprints, we need to go to the root of the threat: the factors that currently favour or allow damaging or unsustainable activities.

In the case of the resort, for example, is the local or national government prioritizing short-term economic development at the expense of long-term, sustainable development? Will tomorrow's tourists prefer mass tourism over more eco-friendly options? Are investors supporting the resort for short-term profits? Are national laws not strong enough to protect important natural areas? Do tour operators not have adequate standards to ensure their activities are not damaging the environment?

These are the ultimate drivers which need to be addressed so that developments and activities are routinely carried out in a sustainable manner in appropriate places – and we no longer need to fight individual battles.



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These global priority drivers are:

- **Public sector finance:** Funding to environmental and development issues that is under governmental control, e.g., through government budgets, multilateral banks, national and regional development banks, international aid, subsidy and sector support. Such funding influences where and how resources are committed and the degree to which environmental concerns are considered.
- **Private sector finance:** Funding to environmental and development issues that is under private control, e.g., through private banks, superannuation funds, insurance funds, and investors in business and industry. Such funding influences development, business and industry, technology transfer, and a range of other sectors that can have an adverse environmental impact.
- **Business practices:** The standards, guidelines, and ethics of businesses working in sectors that affect the environment, such as agriculture, fisheries, timber, pulp and paper, water, mining, and energy. Without environmentally-appropriate standards, businesses and industries working in these sectors are likely to increase biodiversity loss and humanity's ecological footprint.
- **Laws and regulations:** National and international laws, policies, and frameworks relating to, e.g., water, wildlife, forestry, fisheries, land use, poverty, development, agriculture, energy, and CO₂ emissions. Such laws, policies, and frameworks have a great deal of influence on the chance of conservation success.
- **Consumption choices & beliefs and attitudes towards nature:** For example whether people choose sustainably sourced products, environmentally friendly transport options, and green energy; the effect of cultural food preferences on the environment; the way people treat natural places; and attitudes to human-wildlife conflict.

By understanding and engaging with the key actors – organizations, businesses, communities, and individuals – behind these drivers, we will be able to better target our strategies and actions, our investment, and our expertise. Constant analysis of the global priority drivers will also help us to anticipate future trends and changes, and so enable us to be proactive.

White rhinoceros, Lake Nakuru National Park, Kenya



4. Pulling it all together



Young boy, Serepok River, Vietnam

WWF's guiding principles

We will:

- be global, independent, multicultural and non-party political
- use the best available scientific information to address issues and critically evaluate all our 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 field programmes, respecting their cultural as well as economic needs
- strive to build partnerships with other organizations, governments, business, and local communities to enhance our effectiveness
- run our operations in a cost effective manner and apply donors' funds according to the highest standards of accountability.

Identifying priority places, species, footprint areas, and global drivers is relatively easy – the hard, and most important, part is achieving concrete results.

But with our partners – you – we can do it.

Building on half a century of experience and with an impressive track record around the world¹ – ranging from on-the-ground conservation to high-level international policy and private sector engagement – WWF has the unique ability to drive large-scale changes from the local level to the global.

Working in a worldwide network covering over 100 countries, dedicated, passionate people are taking a science-based, collaborative approach to implement our global conservation framework. We are tackling specific threats to priority places, species, and footprint areas, and integrating this with systematic work to address the global priority drivers. We routinely monitor and measure our progress to make sure we're on track and to adapt our approaches as necessary. And we are bound by an overarching set of guiding principles that ensures our work is ethical and transparent.

We also have tremendous help. Our equally dedicated, passionate partners include local governments, national governments, international conventions, other conservation groups, development groups, scientists, businesses, industry, investment banks, farmers, fishers, foresters, indigenous people, local communities, park managers, landowners, and consumers. Everyone, in fact, who has a stake in the health of our planet.

Together we are developing and implementing innovative, lasting solutions for conserving biodiversity and reducing humanity's ecological footprint. Together we are building a future in which people live in harmony with nature.

Together we are working for a Living Planet.

¹ see WWF: Building a Sustainable Future

WWF's global conservation framework

Challenge

Conserve biodiversity

Reduce humanity's global footprint

Focus efforts

35 priority places

36 priority species

6 priority footprint areas

Tackle both drivers and threats

Threats

Agriculture
Wildlife trade
Urbanization
Energy production
Infrastructure
Climate change
Pollution

Drivers behind threats

Public sector finance
Private sector finance
Business practices
Laws
Consumption choices

By 2020

Biodiversity is protected and well-managed in the world's most outstanding natural places

Populations of the most ecologically, economically and culturally important species are restored and thriving in the wild

Humanity's global footprint falls below its 2000 level and continues its downward trend, specifically in the areas of energy/carbon, commodities (crops, meat, fish and wood), and water

By 2050

The integrity of the most outstanding natural places on Earth is conserved, contributing to a more secure and sustainable future for all

Humanity's global footprint is within the Earth's capacity to sustain life and natural resources are shared equitably

Forever

People living in harmony with nature



for a living planet

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.

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We need your help!

WWF's conservation framework shows the way forward – but we can only get there with continued help and support from donors, local communities, governments, NGO partners, businesses, scientists, aid agencies, fisheries and forestry organizations, consumer groups, and other essential partners.

Find out how you can work with us:
www.panda.org

