

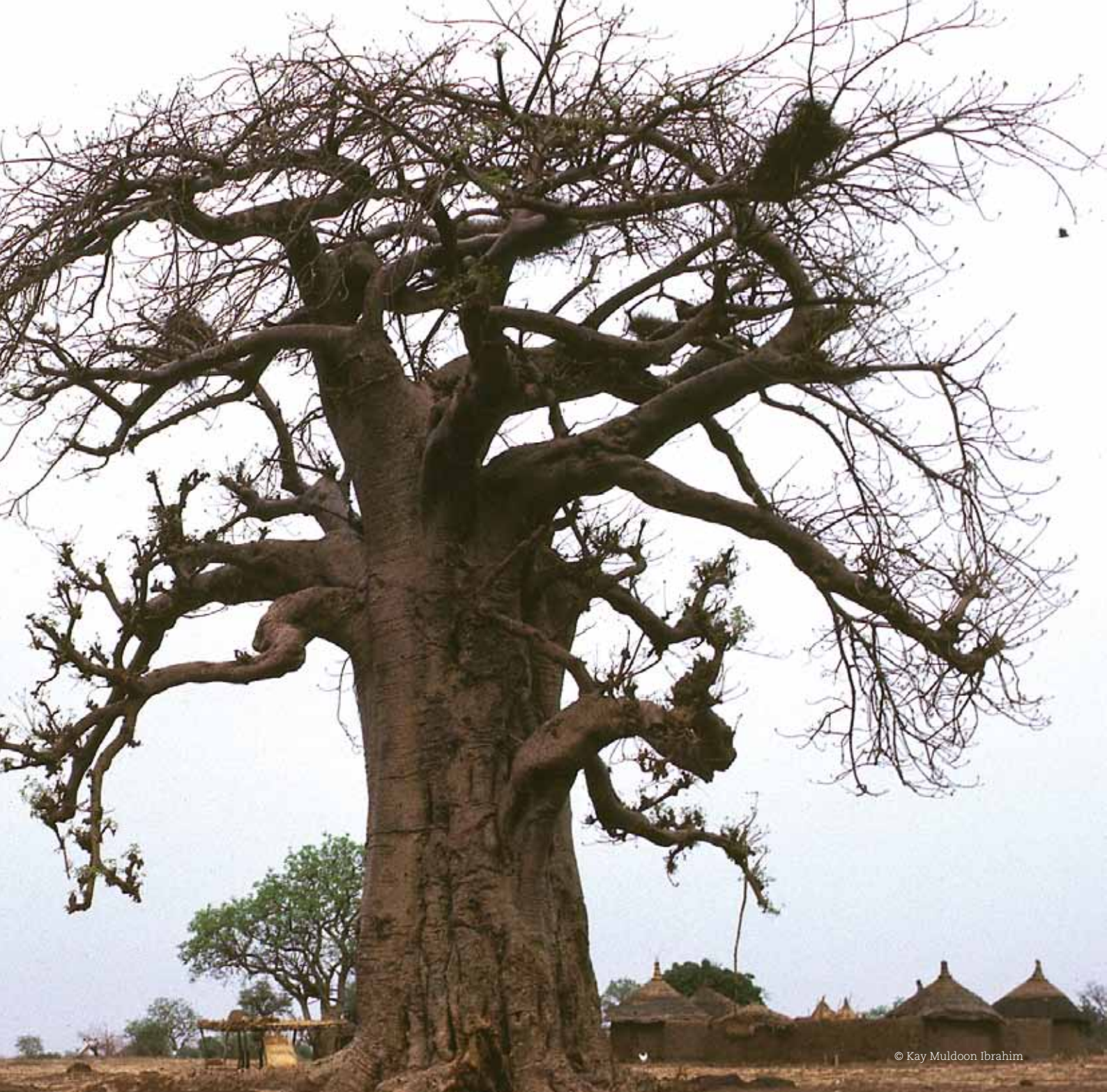
Global Biodiversity Outlook 3

Executive Summary



Convention on
Biological Diversity





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Message from the Executive Secretary

The news is not good. We continue to lose biodiversity at a rate never before seen in history — extinction rates may be up to 1,000 times higher than the historical background rate. The assessment of the state of the world's biodiversity in 2010, as contained in GBO-3 based on the latest indicators, over 110 national reports submitted to the Convention Secretariat, and scenarios for the 21st Century should serve as a wake-up call for humanity. Business as usual is no longer an option if we are to avoid irreversible damage to the life-support systems of our planet. The Convention's new Strategic Plan, to be adopted at the 2010 Nagoya Biodiversity Summit must tackle the underlying causes of biodiversity loss. And the linked challenges of biodiversity loss and climate change must be addressed with equal priority and close cooperation. Joint action is needed to implement the Conventions on Biodiversity, Climate Change and to Combat Desertification — the three conventions born of the 1992 Rio Conference. The Rio+20 Summit offers an opportunity to adopt a work plan to achieve this.



Ahmed Djoghlaoui
Executive Secretary, Convention on Biological Diversity

Foreword by the United Nations Secretary-General

In 2002, the world's leaders agreed to achieve a significant reduction in the rate of biodiversity loss by 2010. Having reviewed all available evidence, including national reports submitted by Parties, this third edition of the *Global Biodiversity Outlook* concludes that the target has not been met. Moreover, the *Outlook* warns, the principal pressures leading to biodiversity loss are not just constant but are, in some cases, intensifying.

The consequences of this collective failure, if it is not quickly corrected, will be severe for us all. Biodiversity underpins the functioning of the ecosystems on which we depend for food and fresh water, health and recreation, and protection from natural disasters. Its loss also affects us culturally and spiritually. This may be more difficult to quantify, but is nonetheless integral to our well-being.

Current trends are bringing us closer to a number of potential tipping points that would catastrophically reduce the capacity of ecosystems to provide these essential services. The poor, who tend to be most immediately dependent on them, would suffer first and most severely. At stake are the principal objectives outlined in the Millennium Development Goals: food security, poverty eradication and a healthier population.

The conservation of biodiversity makes a critical contribution to moderating the scale of climate change and reducing its negative impacts by making ecosystems -- and therefore human societies -- more resilient. It is therefore essential that the challenges related to biodiversity and climate change are tackled in a coordinated manner and given equal priority.



In several important areas, national and international action to support biodiversity is moving in a positive direction. More land and sea areas are being protected, more countries are fighting the serious threat of invasive alien species, and more money is being set aside for implementing the Convention on Biological Diversity.

However, these efforts are too often undermined by conflicting policies. To tackle the root causes of biodiversity loss, we must give it higher priority in all areas of decision-making and in all economic sectors. As this third *Global Biodiversity Outlook* makes clear, conserving biodiversity cannot be an afterthought once other objectives are addressed -- it is the foundation on which many of these objectives are built. We need a new vision for biological diversity for a healthy planet and a sustainable future for humankind.

Ban Ki-moon
BAN Ki-moon
Secretary-General, United Nations

Message from the Executive Director of UNEP

Humanity has fabricated the illusion that somehow we can get by without biodiversity or that it is somehow peripheral to our contemporary world: the truth is we need it more than ever on a planet of six billion heading to over nine billion people by 2050. *Global Biodiversity Outlook-3* contains sobering facts and figures while pinpointing the key reasons as to why the challenge of conserving and indeed enhancing biodiversity remains unmet. One key area is economics: most economies remain blind to the huge value of the diversity of animals, plants and other life-forms and their role in healthy and functioning ecosystems from forests and freshwaters to soils, oceans and even the atmosphere. The *Economics of Ecosystems and Biodiversity*, hosted by UNEP, aims to enhance understanding and drive action in this area. Mainstreaming the economics of biodiversity and the multi-trillion dollar services of the ecosystems which it supports into development, decision-making can make 2010—the UN's International Year of Biodiversity—a success.



Achim Steiner

Achim Steiner
Executive Director, United Nations Environment Programme



Executive Summary

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The Convention on Biological Diversity

The word biodiversity, a contraction of the synonymous phrase 'biological diversity', is defined by the Convention on Biological Diversity (CBD) as 'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems'. This is the definition used throughout this document.

The CBD is one of the three "Rio Conventions", emerging from the UN Conference on Environment and Development, also known as the Earth Summit, held in Rio de Janeiro in 1992. It came into force at the end of 1993, with the following objectives: "The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding."

There are currently 193 Parties to the Convention (192 countries and the European Union). In April 2002, the Parties to the Convention committed themselves to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth. This target was subsequently endorsed by the World Summit on Sustainable Development (the "Rio + 10" summit) in Johannesburg, 2002, and by the United Nations General Assembly. It was also incorporated as a new target under one of the Millennium Development Goals – Ensure Environmental Sustainability. The 2010 biodiversity target is therefore a commitment from all governments, including those not party to the CBD.

The target agreed by the world's Governments in 2002, "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth", has not been met [See Table].

There are multiple indications of continuing decline in biodiversity in all three of its main components — genes, species and ecosystems [See Figure] — including:

- ❖ Species which have been assessed for extinction risk are on average moving closer to extinction. Amphibians face the greatest risk and coral species are deteriorating most rapidly in status. Nearly a quarter of plant species are estimated to be threatened with extinction.
- ❖ The abundance of vertebrate species, based on assessed populations, fell by nearly a third on average between 1970 and 2006, and continues to fall globally, with especially severe declines in the tropics and among freshwater species.
- ❖ Natural habitats in most parts of the world continue to decline in extent and integrity, although there has been significant progress in slowing the rate of loss for tropical forests and mangroves, in some regions. Freshwater wetlands, sea ice habitats, salt marshes, coral reefs, seagrass beds and shellfish reefs are all showing serious declines.
- ❖ Extensive fragmentation and degradation of forests, rivers and other ecosystems have also led to loss of biodiversity and ecosystem services.
- ❖ Crop and livestock genetic diversity continues to decline in agricultural systems.
- ❖ The five principal pressures directly driving biodiversity loss (habitat change, overexploitation, pollution, invasive alien species and climate change) are either constant or increasing in intensity.
- ❖ The ecological footprint of humanity exceeds the biological capacity of the Earth by a wider margin than at the time the 2010 target was agreed.

The loss of biodiversity is an issue of profound concern for its own sake. Biodiversity also underpins the functioning of ecosystems which provide a wide range of services to hu-

man societies. Its continued loss, therefore, has major implications for current and future human well-being. The provision of food, fibre, medicines and fresh water, pollination of crops, filtration of pollutants, and protection from natural disasters are among those ecosystem services potentially threatened by declines and changes in biodiversity. Cultural services such as spiritual and religious values, opportunities for knowledge and education, as well as recreational and aesthetic values, are also declining.

The existence of the 2010 biodiversity target has helped to stimulate important action to safeguard biodiversity, such as creating more protected areas (both on land and in coastal waters), the conservation of particular species, and initiatives to tackle some of the direct causes of ecosystem damage, such as pollution and alien species invasions. Some 170 countries now have national biodiversity strategies and action plans [See Box]. At the international level, financial resources have been mobilized and progress has been made in developing mechanisms for research, monitoring and scientific assessment of biodiversity.

Many actions in support of biodiversity have had significant and measurable results in particular areas and amongst targeted species and ecosystems. This suggests that with adequate resources and political will, the tools exist for loss of biodiversity to be reduced at wider scales. For example, recent government policies to curb deforestation have been followed by declining rates of forest loss in some tropical countries. Measures to control alien invasive species have helped a number of species to move to a lower extinction risk category. It has been estimated that at least 31 bird species (out of 9,800) would have become extinct in the past century, in the absence of conservation measures.

However, action to implement the Convention on Biological Diversity has not been taken on a sufficient scale to address the pressures on biodiversity in most places. There has been insufficient integration of biodiversity issues into broader policies, strategies and programmes, and the underlying drivers of biodiversity loss have not been addressed significantly. Actions to promote the conservation and sustainable use of biodiversity receive a tiny fraction of funding compared to activities aimed at promoting infrastructure and industrial developments. Moreover, biodiversity considerations are often ignored when such

developments are designed, and opportunities to plan in ways that minimize unnecessary negative impacts on biodiversity are missed. Actions to address the underlying drivers of biodiversity loss, including demographic, economic, technological, socio-political and cultural pressures, in meaningful ways, have also been limited.

Most future scenarios project continuing high levels of extinctions and loss of habitats throughout this century, with associated decline of some ecosystem services important to human well-being.

For example:

- ❖ Tropical forests would continue to be cleared in favour of crops and pastures, and potentially for biofuel production.
- ❖ Climate change, the introduction of invasive alien species, pollution and dam construction would put further pressure on freshwater biodiversity and the services it underpins.
- ❖ Overfishing would continue to damage marine ecosystems and cause the collapse of fish populations, leading to the failure of fisheries.

Changes in the abundance and distribution of species may have serious consequences for human societies. The geographical distri-

bution of species and vegetation types is projected to shift radically due to climate change, with ranges moving from hundreds to thousands of kilometres towards the poles by the end of the 21st century. Migration of marine species to cooler waters could make tropical oceans less diverse, while both boreal and temperate forests face widespread dieback at the southern end of their existing ranges, with impacts on fisheries, wood harvests, recreation opportunities and other services.

There is a high risk of dramatic biodiversity loss and accompanying degradation of a broad range of ecosystem services if ecosystems are pushed beyond certain thresholds or tipping points. The poor would face the earliest and most severe impacts of such changes, but ultimately all societies and communities would suffer.

Examples include:

- ❖ The Amazon forest, due to the interaction of deforestation, fire and climate change, could undergo a widespread dieback, with parts of the forest moving into a self-perpetuating cycle of more frequent fires and intense droughts leading to a shift to savanna-like vegetation. While there are large uncertainties associated with these scenarios, it is known that such dieback becomes much more likely to occur if deforestation exceeds 20 – 30% (it is currently above 17% in the Brazilian Ama-



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zon). It would lead to regional rainfall reductions, compromising agricultural production. There would also be global impacts through increased carbon emissions, and massive loss of biodiversity.

❖ The build-up of phosphates and nitrates from agricultural fertilizers and sewage effluent can shift freshwater lakes and other inland water ecosystems into a long-term, algae-dominated (eutrophic) state. This could lead to declining fish availability with implications for food security in many developing countries. There will also be loss of recreation opportunities and tourism income, and in some cases health risks for people and livestock from toxic algal blooms. Similar, nitrogen-induced eutrophication phenomena in coastal environments lead to more oxygen-starved dead zones, with major economic losses resulting from reduced productivity of fisheries and decreased tourism revenues.

❖ The combined impacts of ocean acidification, warmer sea temperatures and other human-induced stresses make tropical coral reef ecosystems vulnerable to collapse. More acidic water — brought about by higher carbon dioxide concentrations in the atmosphere — decreases the availability of the carbonate ions required to build coral skeletons. Together with the bleaching impact of warmer water, elevated nutrient levels from pollution, overfishing, sediment deposition arising from inland deforestation, and other pressures, reefs worldwide increasingly become algae-dominated with catastrophic loss of biodiversity and ecosystem functioning, threatening the livelihoods and food security of hundreds of millions of people.

There are greater opportunities than previously recognized to address the biodiversity crisis while contributing to other social objectives. For example, analyses conducted for this Outlook identified scenarios in which climate change is mitigated while maintaining and even expanding the current extent of forests and other natural ecosystems (avoiding additional habitat loss from the widespread deployment of biofuels). Other opportunities include “rewilding” abandoned farmland in some regions, and the restoration of river basins and other wetland ecosystems to enhance water supply, flood control and the removal of pollutants.

Well-targeted policies focusing on critical areas, species and ecosystem services are essential to avoid the most dangerous impacts

on people and societies. Preventing further human-induced biodiversity loss for the near-term future will be extremely challenging, but biodiversity loss may be halted and in some aspects reversed in the longer term, if urgent, concerted and effective action is initiated now in support of an agreed long-term vision. Such action to conserve biodiversity and use its components sustainably will reap rich rewards - through better health, greater food security, less poverty and a greater capacity to cope with, and adapt to, environmental change.

Placing greater priority on biodiversity is central to the success of development and poverty-alleviation measures. It is clear that continuing with “business as usual” will jeopardize the future of all human societies, and none more so than the poorest who depend directly on biodiversity for a particularly high proportion of their basic needs. The loss of biodiversity is frequently linked to the loss of cultural diversity, and has an especially high negative impact on indigenous communities.

The linked challenges of biodiversity loss and climate change must be addressed by policy-makers with equal priority and in close co-ordination, if the most severe impacts of each are to be avoided. Reducing the further loss of carbon-storing ecosystems such as tropical forests, salt marshes and peatlands will be a crucial step in limiting the build-up of greenhouse gases in the atmosphere. At the same time, reducing other pressures on ecosystems can increase their resilience, make them less vulnerable to those impacts of climate change which are already unavoidable, and allow them to continue to provide services to support people’s livelihoods and help them adapt to climate change.

Better protection of biodiversity should be seen as a prudent and cost-effective investment in risk-avoidance for the global community. The consequences of abrupt ecosystem changes on a large scale affect human security to such an extent, that it is rational to minimize the risk of triggering them - even if we are not clear about the precise probability that they will occur. Ecosystem degradation, and the consequent loss of ecosystem services, has been identified as one of the main sources of disaster risk. Investment in resilient and diverse ecosystems, able to withstand the multiple pressures they are subjected to, may be the best-value insurance policy yet devised.

Scientific uncertainty surrounding the precise connections between biodiversity and human

well-being, and the functioning of ecosystems, should not be used as an excuse for inaction.

No one can predict with accuracy how close we are to ecosystem tipping points, and how much additional pressure might bring them about. What is known from past examples, however, is that once an ecosystem shifts to another state, it can be difficult or impossible to return it to the former conditions on which economies and patterns of settlement have been built for generations.

Effective action to address biodiversity loss depends on addressing the underlying causes or indirect drivers of that decline.

This will mean:

- ❖ Much greater efficiency in the use of land, energy, fresh water and materials to meet growing demand.
- ❖ Use of market incentives, and avoidance of perverse subsidies, to minimize unsustainable resource use and wasteful consumption.
- ❖ Strategic planning in the use of land, inland waters and marine resources to reconcile development with conservation of biodiversity and the maintenance of multiple ecosystem services. While some actions may entail moderate costs or tradeoffs, the gains for biodiversity can be large in comparison.
- ❖ Ensuring that the benefits arising from use of and access to genetic resources and associated traditional knowledge, for example through the development of drugs and cosmetics, are equitably shared with the countries and cultures from which they are obtained.

- ❖ Communication, education and awareness-raising to ensure that as far as possible, everyone understands the value of biodiversity and what steps they can take to protect it, including through changes in personal consumption and behaviour.

The real benefits of biodiversity, and the costs of its loss, need to be reflected within economic systems and markets.

Perverse subsidies and the lack of economic value attached to the huge benefits provided by ecosystems have contributed to the loss of biodiversity. Through regulation and other measures, markets can and must be harnessed to create incentives to safeguard and strengthen, rather than to deplete, our natural infrastructure. The re-structuring of economies and financial systems following the global recession provides an opportunity for such changes to be made. Early action will be both more effective and less costly than inaction or delayed action.

Urgent action is needed to reduce the direct drivers of biodiversity loss.

The application of best practices in agriculture, sustainable forest management and sustainable fisheries should become standard practice, and approaches aimed at optimizing multiple ecosystem services instead of maximizing a single one should be promoted. In many cases, multiple drivers are combining to cause biodiversity loss and degradation of ecosystems. Sometimes, it may be more effective to concentrate urgent action on reducing those drivers most responsive to policy changes. This will reduce the pressures on biodiversity and protect its value for human societies in the short to medium-term, while the more intractable drivers are addressed over



a longer time-scale. For example the resilience of coral reefs – and their ability to withstand and adapt to coral bleaching and ocean acidification – can be enhanced by reducing overfishing, land-based pollution and physical damage.

Direct action to conserve biodiversity must be continued, targeting vulnerable as well as culturally-valued species and ecosystems, combined with steps to safeguard key ecosystem services, particularly those of importance to the poor. Activities could focus on the conservation of species threatened with extinction, those harvested for commercial purposes, or species of cultural significance. They should also ensure the protection of functional ecological groups – that is, groups of species that collectively perform particular, essential roles within ecosystems, such as pollination, control of herbivore numbers by top predators, cycling of nutrients and soil formation.

Increasingly, restoration of terrestrial, inland water and marine ecosystems will be needed to re-establish ecosystem functioning and the provision of valuable services. Economic analysis shows that ecosystem restoration can give good economic rates of return. However the biodiversity and associated services of restored ecosystems usually remain below the levels of natural ecosystems. This reinforces the argument that, where possible, avoiding degradation through conservation is preferable (and even more cost-effective) than restoration after the event.

Better decisions for biodiversity must be made at all levels and in all sectors, in particular the major economic sectors, and government has a key enabling role to play. National programmes or legislation can be crucial in creating a favourable environment to support effective “bottom-up” initiatives led by communities, local authorities, or businesses. This also includes empowering indigenous peoples and local communities to take responsibility for biodiversity management and decision-making; and developing systems to ensure that the benefits arising from access to genetic resources are equitably shared.



We can no longer see the continued loss of and changes to biodiversity as an issue separate from the core concerns of society: to tackle poverty, to improve the health, prosperity and security of our populations, and to deal with climate change. Each of those objectives is undermined by current trends in the state of our

ecosystems, and each will be greatly strengthened if we correctly value the role of biodiversity in supporting the shared priorities of the international community. Achieving this will involve placing biodiversity in the mainstream of decision-making in government, the private sector, and other institutions from the local to international scales.



The action taken over the next decade or two, and the direction charted under the Convention on Biological Diversity, will determine whether the relatively stable environmental conditions on which human civilization has depended for the past 10,000 years will continue beyond this century. If we fail to use this opportunity, many ecosystems on the planet will move into new, unprecedented states in which the capacity to provide for the needs of present and future generations is highly uncertain.

TABLE: Status of agreed subsidiary targets to 2010 biodiversity target


Goal 1. Promote the conservation of the biological diversity of ecosystems, habitats and biomes

	1.1: At least 10% of each of the world's ecological regions effectively conserved.	Not achieved globally, but more than half of terrestrial eco-regions meet the 10% target. However, management effectiveness is low for some protected areas. Marine and inland water systems lack protection, though this is increasing.
	1.2: Areas of particular importance to biodiversity protected.	Not achieved globally, but an increasing proportion of the sites of importance for conserving birds, and those holding the last remaining populations of threatened species, are being protected.




Goal 2. Promote the conservation of species diversity

	2.1: Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups.	Not achieved globally as many species continue to decline in abundance and distribution. However, some efforts have resulted in the recovery of targeted species.
	2.2: Status of threatened species improved.	Not achieved globally, as species are on average at increasing risk of extinction. However some species have moved to lower risk categories as a result of actions taken.


Goal 3. Promote the conservation of genetic diversity

	3.1: Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained.	Not achieved globally. Information on genetic diversity is fragmentary. Progress has been made towards conserving genetic diversity of crops through ex situ actions, however agricultural systems continue to be simplified. While the genetic diversity of wild species is more difficult to ascertain, the overall decline of biodiversity presented in this report strongly suggests that genetic diversity is not being maintained. Genetic resources in situ and traditional knowledge are protected through some projects, but continue to decline overall.
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Goal 4. Promote sustainable use and consumption

	4.1: Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity.	Not achieved globally but progress for some components of biodiversity such as forests and some fisheries. Globally, sustainable use does not account for a large share of total products and production areas.
	4.2: Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced.	Not achieved globally. Unsustainable consumption has increased and continues to be a major cause of biodiversity loss.
	4.3: No species of wild flora or fauna endangered by international trade.	Not achieved globally. Wild flora and fauna continue to decline as a result of international trade, but successes achieved particularly through implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).



Goal 5. Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced

	5.1: Rate of loss and degradation of natural habitats decreased.	Not achieved globally as many biodiversity-sensitive regions continue to decline, but some progress in reducing the rate of loss in some areas.
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Goal 6. Control threats from invasive alien species

	6.1: Pathways for major potential alien invasive species controlled.	Not achieved globally as the introduction of invasive alien species continues to increase as a result of greater transport, trade, and tourism. However, national action related to global agreements on plant protection and ballast water promises to reduce the risk of new invasions in some countries and ecosystems.
	6.2: Management plans in place for major alien species that threaten ecosystems, habitats or species.	Not achieved globally, though some management plans are in place. Most countries lack effective management programmes.



Goal 7. Address challenges to biodiversity from climate change, and pollution

	7.1: Maintain and enhance resilience of the components of biodiversity to adapt to climate change.	Not achieved globally, as limited action has been taken to reduce other pressures and thus enhance the resilience of biodiversity in the face of climate change. However, the establishment of biodiversity corridors in some regions may help species to migrate and adapt to new climatic conditions.
	7.2: Reduce pollution and its impacts on biodiversity.	Not achieved globally but mixed results. Measures to reduce the impacts of pollution on biodiversity have been taken, resulting in the recovery of some previously heavily degraded ecosystems. However, many previously pristine areas are being degraded. Nitrogen deposition continues to be major threat to biodiversity in many regions.



Goal 8. Maintain capacity of ecosystems to deliver goods and services and support livelihoods

	8.1: Capacity of ecosystems to deliver goods and services maintained.	Not achieved globally, given the continuing and in some cases escalating pressures on ecosystems. However, there have been some actions taken, to ensure the continued provision of ecosystem services.
	8.2: Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people.	Not achieved globally, as many of the biological resources which sustain livelihoods, such as fish mammals, birds, amphibians and medicinal plants, are in decline, with the world's poor being particularly affected.


Goal 9. Maintain socio-cultural diversity of indigenous and local communities

	9.1: Protect traditional knowledge, innovations and practices.	Not achieved globally, as long-term declines in traditional knowledge and rights continue, despite the actions taken to protect them in some areas.
	9.2: Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing.	Not achieved globally but an increasing number of co-management systems and community-based protected areas have been established, with the greater protection of the rights of indigenous and local communities.

Goal 10. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources

	10.1: All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements.	Not achieved globally but increasing number of material transfer agreements have been developed under the Treaty.
	10.2: Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources.	Not achieved globally. There are few examples of the benefit arising from the commercial and other utilization of genetic resources being shared with the countries providing such resources. This can be partially attributed to the fact that the Access and Benefit Sharing Regime was being developed from 2002, when the biodiversity target was adopted, until 2010, the deadline set by the CBD for final agreement on this issue.

Goal 11. Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention

	11.1: New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20.	Not achieved globally. While resources continue to be lacking there have been modest increases in official development assistance related to biodiversity.
	11.2: Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4.	Not achieved globally. From country reports it is clear that some developing countries have mechanisms and programmes in place for technology transfer. However, it is also clear that the limited access to technology is an obstacle to implementation of the Convention and reaching the 2010 biodiversity target in many developing countries.



Not achieved globally



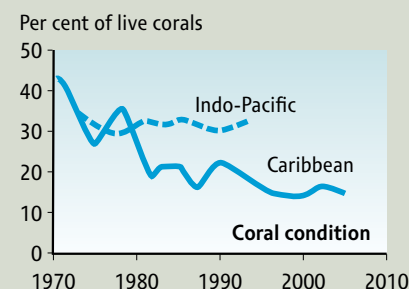
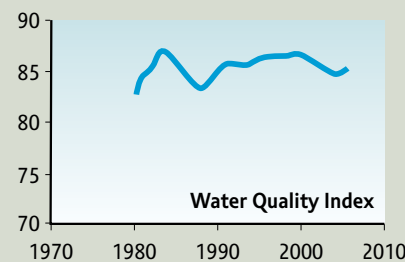
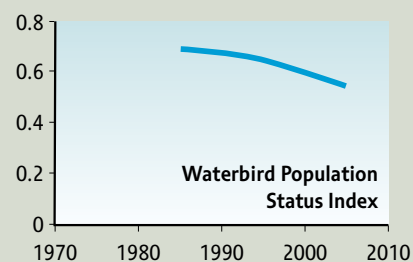
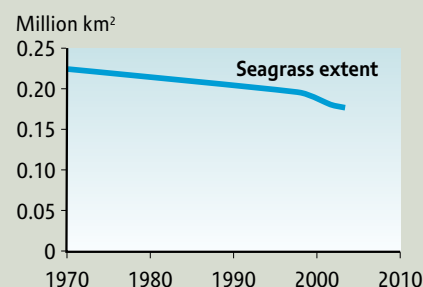
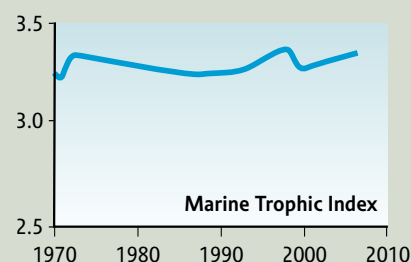
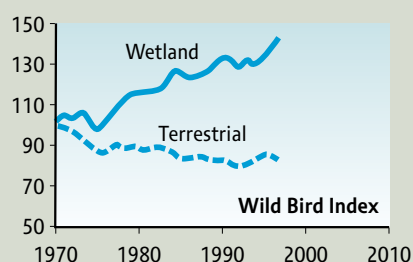
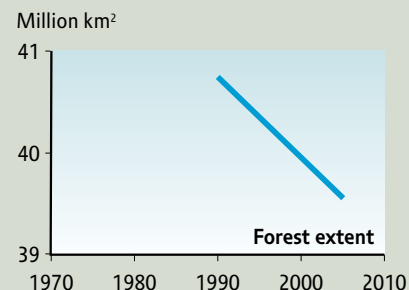
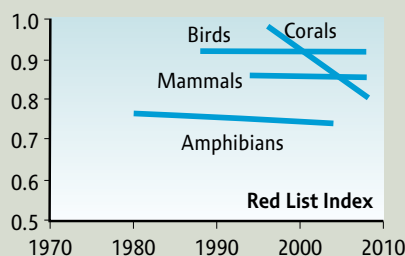
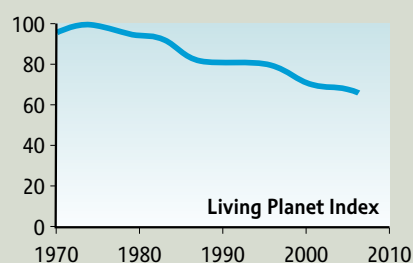
Not achieved globally but some progress



Not achieved globally but significant progress

FIGURE: Summary of biodiversity indicators

STATE



These graphs help to summarize the message from the available indicators on biodiversity: that the state of biodiversity is declining, the pressures upon it are increasing, and the benefits derived by humans from biodiversity are diminishing, but that the responses to address its loss are increasing. They reinforce the conclusion that the 2010 biodiversity target has not been met.

Most indicators of the state of biodiversity show negative trends, with no significant reduction in the rate of decline.

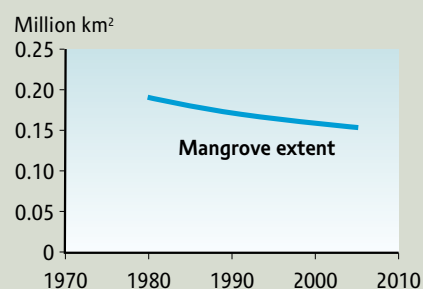
There is no evidence of a slowing in the increase of pressures upon biodiversity, based on the trend shown by indicators of humanity's ecological footprint, nitrogen deposition, alien species introductions, overexploited fish stocks and the impact of climate change on biodiversity.

The limited indicators of the benefits derived by humans from biodiversity also show negative trends.

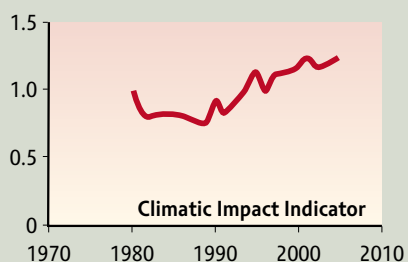
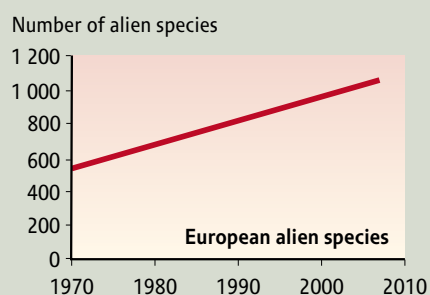
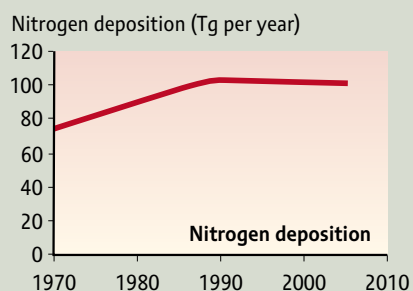
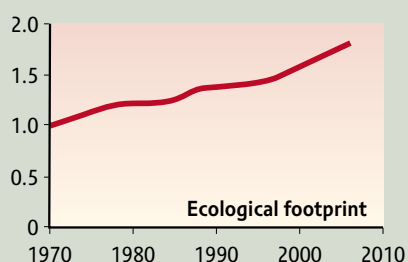
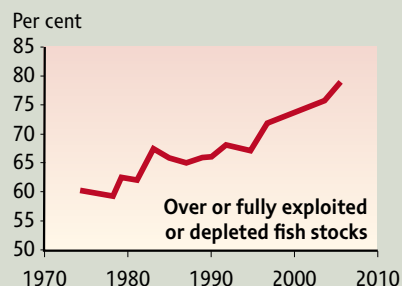
In contrast, all indicators of the responses to address biodiversity loss are moving in a positive direction. More areas are being protected for biodiversity, more policies and laws are being introduced to avoid damage from invasive alien species, and more money is being spent in support of the Convention on Biological Diversity and its objectives.

The overall message from these indicators is that despite the many efforts taken around the world to conserve biodiversity and use it sustainably, responses so far have not been adequate to address the scale of biodiversity loss or reduce the pressures.

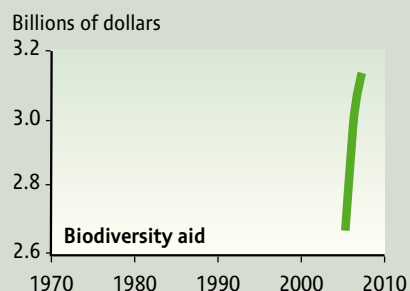
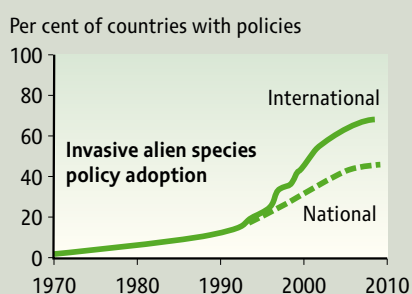
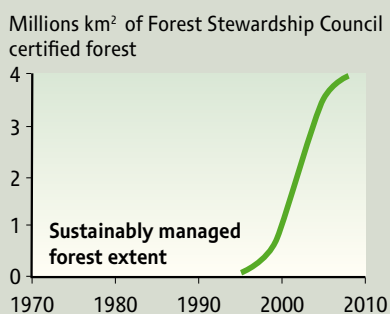
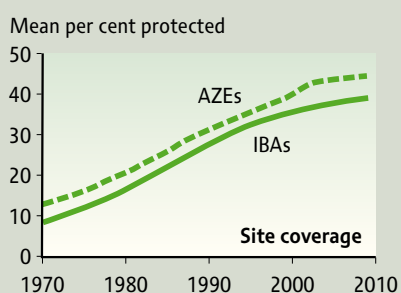
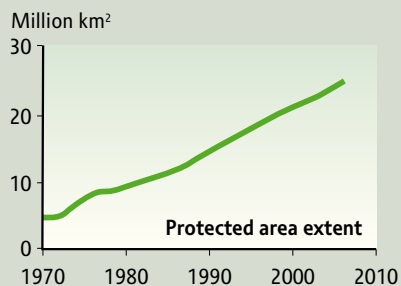
Source: Adapted from Butchart et al. (2010). Science



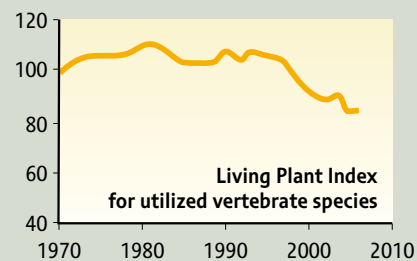
PRESSURE



RESPONSES



BENEFITS





BOX: National action on biodiversity

Over 170 countries (87% of the Parties to the Convention) have developed national biodiversity strategies and action plans (NBSAPs). A further 14 Parties are preparing them, and 9 have either not started to draw up a strategy or had not announced their intention to do so by the time this Outlook went to press.

An overwhelming majority of governments, in other words, have been through the process of codifying their approach to protecting the biodiversity within their own territory. In many countries, the preparation of strategies has stimulated the development of additional laws and programmes, and spurred action on a broad range of issues, including: the eradication or control of alien invasive species; using biodiversity sustainably; the protection of traditional knowledge and rules to ensure local communities share benefits from bio-prospecting which might result in patents or sales of new drugs, foods or cosmetics; the safe use of biotechnology; and maintaining the diversity of plants and animals used in agriculture.

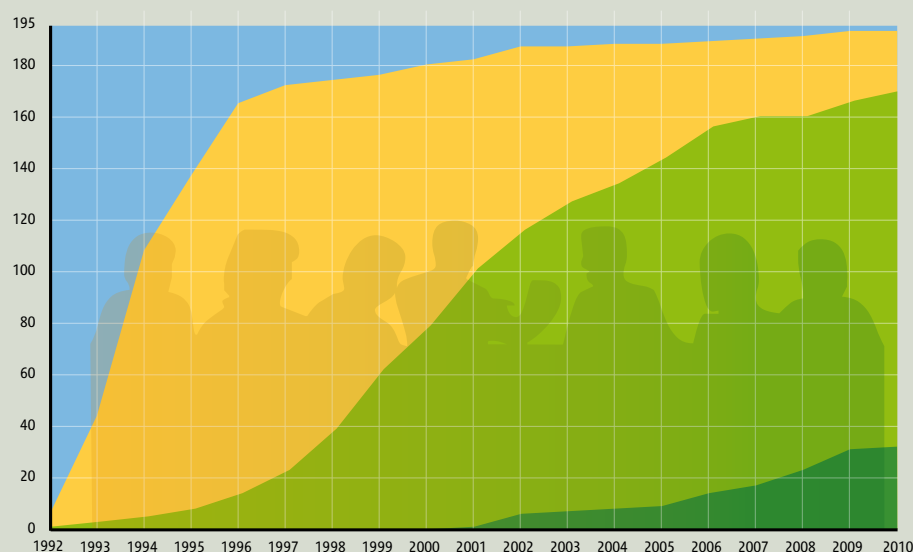
Relatively few Parties have fully integrated the 2010 biodiversity target into their national strategies. Moreover, few countries are using NBSAPs as effective tools for integrating biodiversity into broader national strategies, policies and planning processes. More than 80% of Parties, in their latest national reports to the CBD, concede that limited biodiversity mainstreaming, fragmented decision making and/or limited communication among government ministries or sectors is a challenge to meeting the goals of the Convention.

However, recently developed and updated national biodiversity strategies tend to be more strategic than the first generation of NBSAPs, they have a stronger emphasis on mainstreaming, and give greater recognition to broader national development objectives.

NBSAPs should catalyze a number of strategic actions in countries, including:

- ❖ **Mainstreaming** – biodiversity will be best protected if it is a significant factor in decisions made across a wide range of sectors, departments and economic activities, systems for planning the use of land, freshwater and sea areas (spatial planning), and policies to reduce poverty and adapt to climate change.
- ❖ **Communication and involvement** – strategies will only be effective if they genuinely involve the people closest to the resources they are designed to protect. Often the best solutions will be driven by local demand, using legal and institutional frameworks set at a higher level.
- ❖ **Tools for implementation** – particular approaches, such as making integrated decisions based on maintaining and improving the overall health of ecosystems, or introducing policies on payments for the use of hitherto “free” ecosystem services, can aid in the protection of biodiversity.
- ❖ **Knowledge** – for good decisions to be made, the best available information about the biodiversity of a country or region must be accessible to the right people at the right time. The Clearing-House Mechanism, a system of compiling, co-ordinating and providing access to relevant and up-to-date knowledge, is a key tool provided by the CBD framework.
- ❖ **Monitoring** – assessing and communicating progress towards the objectives and targets set by a biodiversity strategy is an important way to improve its effectiveness and visibility.
- ❖ **Financing and capacity** – co-ordinating action to support biodiversity will only be meaningful if there is money to do it and there are people who know how to do it.

Number of countries



Parties to Convention on Biological Diversity

The number of countries party to the Convention on Biological Diversity has grown over time, and it currently has near universal membership. Of the 193 Parties to the Convention 170 have developed National Biodiversity Strategies and Action Plans (NBSAPs) and of these, more than 35 Parties have revised their NBSAP.

Source: Secretariat of the Convention on Biological Diversity

■ Countries
 ■ Parties
 ■ NBSAPs
 ■ NBSAP revisions



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