

A photograph of a man with a beard and short hair, wearing a dark jacket, working in a lush green forest. He is holding a branch with small green fruits, possibly coffee cherries, and appears to be tending to them. The forest is dense with large green leaves and moss-covered tree trunks.

BfN's contribution to global nature conservation

# SUSTAINING NATURAL SYSTEMS FOR FUTURE GENERATIONS

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Cover Photo: Ethiopian picking coffee berries.

BfN supports the first three UNESCO Biosphere Reserves in Ethiopia consisting of Afromontane forests that represent some of the last refuges for wild coffee.

## **The German Federal Agency for Nature Conservation (BfN)**

The German Federal Agency for Nature Conservation (BfN) is Germany's central scientific authority for both national and international nature conservation and advises the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). The agency pursues an integrated approach to nature conservation aimed at achieving a balance between conservation of biological diversity and sustainable use of natural resources. Continuous improvement of conservation tools and their dynamic adaptation to social and economic change are integral to this approach. BfN projects are funded by BMU.



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## The International Work of BfN

Dear Readers,

Nature does not stop at political borders, neither does nature conservation. Biological diversity is a global asset that provides the basis for human well-being and is vital to humanity's economic and social development. The worldwide loss of species and ecosystems caused by human activities nonetheless goes on at an alarming rate. Cooperation at international level is essential to jointly addressing the challenges that impede the attainment of global conservation goals.



Germany is a party to all multilateral environmental agreements relevant to nature conservation such as the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the UNESCO World Heritage Convention (WHC), the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and a number of regional agreements such as the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea, the Alpine Convention and the Trilateral Wadden Sea Cooperation. Bilateral environmental agreements and memoranda of understanding are also in place with numerous states. BfN's international activities are guided by the goals and priorities enshrined in these conventions and agreements and aim at advancing their implementation.

BfN also initiates and supports a broad range of bilateral and multilateral conservation projects at an international level in close partnership with scientific institutions and environmental and development organisations. These projects focus on a number of key thematic areas and geographic regions as outlined on the next pages.

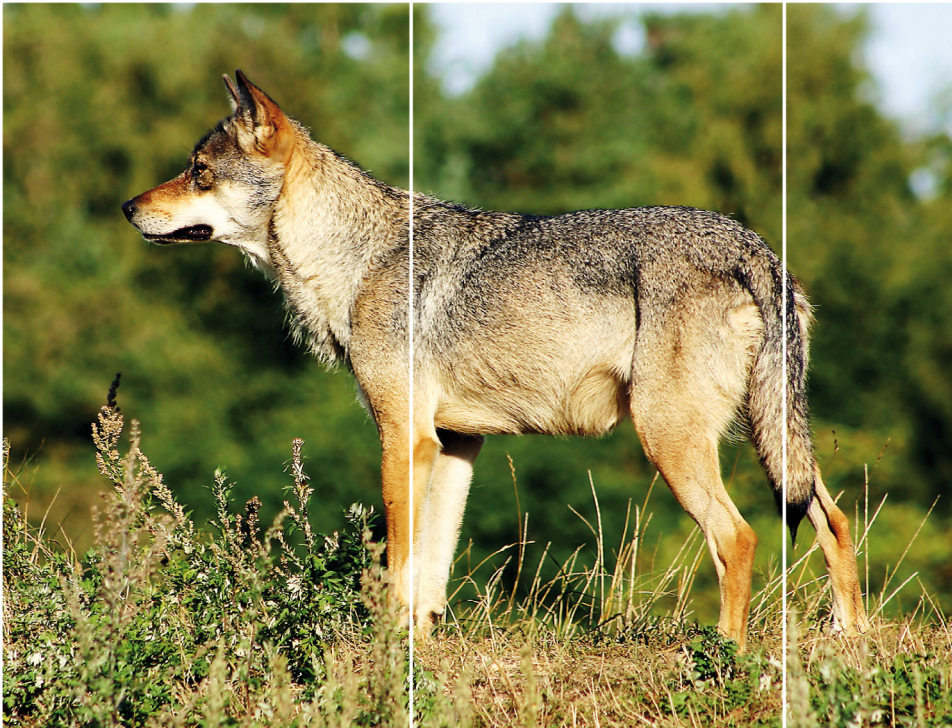
My colleagues and I hope that you will enjoy reading this brochure that introduces the international work of BfN. We hope to capture your interest, your enthusiasm and your appreciation for international nature conservation issues!

Prof. Dr. Beate Jessel

President of the German Federal Agency for Nature Conservation

## Halting Biodiversity Loss

With the new strategic plan of the CBD it is intended to „take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life and contributing to human well-being and poverty eradication.” The plan consists of twenty biodiversity targets linked to indicators in order to measure progress. To accomplish the targets, BfN advises and supports BMU and serves as the German national focal point to its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). BfN also supports the United Nations Decade on Biodiversity and numerous initiatives and projects to promote the conservation of genetic, species and ecosystem diversity, to disseminate information and to encourage action to safeguard the irreplaceable natural wealth that is being lost at a greatly accelerated rate.



## Conservation and Sustainable Use of Ecosystems and their Services

Ecosystems form the basis of human life on earth. They provide water, food and energy; clean air, regulate climate, help to reduce erosion and offer many more essential services. Yet, their increasing degradation and loss – due to the effects of climate change and growing land use pressure – are serious concerns across countries and continents, as they reduce the chances for future livelihoods and innovations based on biological resources. BfN shares the view of many of its international partners that by assessing and valuing ecosystems and their services, as initiated by the global TEEB (The Economics of Ecosystems and Biodiversity) process, support for policy decisions can be provided that offers viable long-term solutions for conservation and sustainable use of ecosystems.



## Exchange and Capacity Building on Economic Valuation and Payments for Ecosystem Services

According to the international TEEB approach, we share a broad understanding of economic values in our national study „Natural Capital Germany – TEEB DE“. BfN offers opportunities for exchange on methodological approaches and the implementation of TEEB processes for BfN's partner countries such as China or Russia. A specific focus is given to bridging gaps between science and policy as well as supporting tools and instruments for implementation. In this context, payments for ecosystem services (PES), for example, are considered a promising tool to reward land owners for biodiversity conservation. Especially in developing countries, PES may contribute to sustainable livelihoods and poverty alleviation.





## Biodiversity Conservation and Climate Change

Climate change is one of the most serious challenges of this century and impacts on people, fauna, flora and ecosystems. BfN focuses on the adaptation of nature conservation strategies to climate change and explores ways to strengthen linkages between sustainable land use and climate change mitigation at national, EU and international level. BfN also supports initiatives in developing and newly industrialising countries, which aim at the conservation, sustainable management and rehabilitation of ecosystems that represent globally significant carbon sinks. These are funded under the German Environment Ministry's International Climate Initiative.



## Climate Change Adaptation in the Altai-Sayan Mountains

The biodiverse Altai-Sayan-Ecoregion covers parts of Russia, Mongolia, Kazakhstan and China. The region is largely affected by climate change through melting glaciers, changes in precipitation, increased flooding, wildfires, droughts, desertification and land use changes. BfN supports the development of a transboundary UNESCO Biosphere Reserve in the Altai mountains that fosters climate change adaptation by promoting the reduction of anthropogenic environmental degradation, the safeguarding of forests as natural carbon sinks and the establishment of ecological corridors between existing protected areas.

## Conservation and International Trade

International trade is an important factor in the persistent decline of populations of endangered animal and plant species worldwide. To address this threat, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was adopted in 1973. As the CITES Management Authority for Germany, BfN issues import and export documents for protected species and is responsible for the prosecution of violations against CITES regulations. BfN also promotes innovative and long-term conservation approaches to better protect heavily traded species groups such as the sturgeons, Asian freshwater turtles, sharks and medicinal plants, and it works continuously to generate synergies with other international policy processes.

To build capacity for more effective worldwide enforcement of CITES, BfN organises training seminars in and beyond Europe. It develops identification kits and maintains online databases on the current conservation status of and import restrictions on animal and plant species in the European Union.

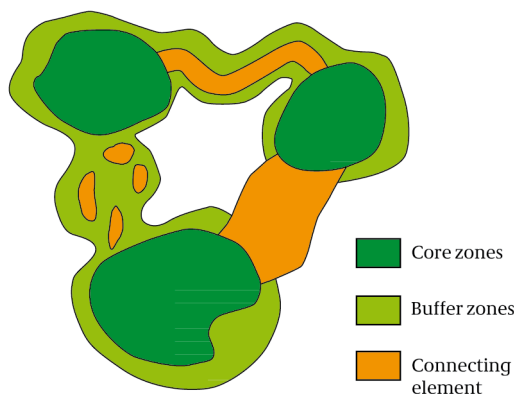


### Combating Ivory Smuggling: A New African Elephant Ivory Database

As a contribution to CITES's African elephant action plan, BfN actively supports a project that determines the age and geographical origin of elephant ivory based on the chemical analysis of various radionuclide (age) and stable isotopes (origin). The time of death and the origin, respectively, of an elephant can be determined with a high degree of certainty by combining the analyses of multiple parameters. Developing a user friendly African ivory reference database can help national authorities and the international community to combat the still persisting problem of ivory smuggling.

## Protected Areas and Ecological Networks

Protected areas provide powerful tools for conserving biodiversity and for delivering vital ecosystem services such as protecting watersheds and soils. The importance of protected areas is recognised by the CBD Programme of Work on Protected Areas (PoWPA). BfN supports partner countries in establishing protected areas and designing efficient management strategies. Promising approaches to combine biodiversity conservation with the sustainable use of natural resources by involving the local population proved to be UNESCO's Biosphere Reserves. BfN works at both national and international level to implement the goals of the corresponding UNESCO Man and the Biosphere Programme (MAB). The work of BfN also aims at the creation of ecological networks of protected areas and efficient crossborder collaboration in transboundary protected areas. Participatory approaches and holistic development concepts are applied that integrate nature conservation and sustainable regional development.



### The European Green Belt: An Ecological Network of Protected Areas

The strip of land along the former Iron Curtain between Eastern and Western Europe has remained almost undisturbed in many places. To protect and develop this unique former border area, the European Green Belt Initiative aims to create an ecological network that runs from the Barents Sea to the Black Sea, spanning some of the most important habitats for biodiversity and almost all distinct biogeographical regions of Europe. It connects national parks, nature parks, biosphere reserves, transboundary protected areas and non-protected areas and supports regional development initiatives based on nature conservation. BfN supports the European Green Belt Initiative at both national and European level.

## Marine and Coastal Conservation

Coastal zones and the world's oceans comprise the most productive ecosystems in the world. Yet, these ecosystems are severely threatened by population pressures, over-fishing, pollution and other destructive activities. The conservation of marine and coastal biodiversity is therefore a priority at international level and is addressed by conventions including the CBD and the UN Convention on the Law of the Sea (UNCLOS). BfN takes part in the UN's High Seas Working Group and supports the implementation of multilateral conventions to protect the North-East Atlantic, the Baltic Sea, the Wadden Sea and the Antarctic system. In particular, BfN focuses on the management of marine protected areas, the implementation of national and international

species protection programmes and on mitigating impacts of maritime human activities. BfN also contributes substantially to the global process to set up a worldwide network of marine protected areas in ecologically significant and vulnerable marine areas.



## Reintroducing the Sturgeon

The European sturgeon and the Atlantic sturgeon represent two of Europe's most extraordinary and in former times commercially important fish species that migrate from the sea into rivers for spawning. BfN supports two sturgeon reintroduction projects aiming to re-establish self-reproducing populations of these two species that were formerly abundant in the North and Baltic Sea. This includes initiatives for improving their habitat conditions, for example, by an integrated catchment area management to restore river regimes. In doing so, the sturgeon reintroduction also prepares the way and conditions for other species with similar habitat needs, such as salmon, sea trout, houting, twait and allis shad and other characteristic river fauna.



### Conserving our World Natural Heritage

The World Heritage Convention was adopted in 1972 to protect and sustain unique cultural and natural heritage, including ecosystems and landscapes considered to be of outstanding value to humanity. BfN works at both national and international level to implement the objectives of the Convention, to preserve existing World Heritage properties and to nominate new sites. At the moment two of the three German Natural World Heritage properties are transnational: The Wadden Sea (Germany and The Netherlands) and the “Primeval Beech Forests of the Carpathians and the Ancient Beech Forests of Germany”.



### Beech Forests: Europe's Natural Heritage

Beech forests comprise the potential natural vegetation of vast areas of Central Europe. Despite this, beech forests are threatened by settlement and forestry activity in many parts of their natural range. BfN therefore supported the extension of the transnational UNESCO World Heritage property “Primeval Beech Forests of the Carpathians” in Slovakia and Ukraine by five “Ancient Beech Forests of Germany” and is currently working towards a future extension by other European beech forests to complete the series.

## Biodiversity and Biosafety

As a protocol to the CBD, the Cartagena Protocol on Biosafety (CPB) regulates the safe transfer, handling and use of Living Modified Organisms (LMOs). In particular, it describes the criteria for Environmental Risk Assessments (ERAs) required in the Advanced Informed Agreement (AIA) procedure which precedes imports of (genetically engineered) LMOs. As one of the competent German authorities responsible for ERAs at national and EU level, BfN is instrumental in the CPB's further development and works towards sound integration of ecological aspects in ERAs conducted under the Cartagena Protocol. Given the complex interlinkages and interactions between species in ecosystems, the precautionary approach, as a guiding principle of the CBD and the Protocol, is of key importance.



## Landscape Planning for Sustainable Development

Landscape planning has proven to be an effective, forward-looking tool in the context of nature conservation in Germany. Enshrined in law in the country's Federal Nature Conservation Act, landscape planning has contributed towards integrating ecological, economic and social aspects in the planning and sustainable management of landscapes. BfN supports pilot projects in various parts of the world to demonstrate the benefits of bio-geographic and project-based landscape planning as a means to further sustainable development. Capacity building plays an important role in these projects.



## Ecocompensation / Biological Offsets

Under the CBD (Article 14), member states are required to put in place appropriate procedures and tools for environmental impact assessments with a view to avoiding or minimising negative effects. BfN is therefore increasingly introducing and implementing biological offset mechanisms in international programmes such as the Business and Biodiversity Offset Programme. As part of this initiative, a set of principles has been adopted to identify conditions under which biological offsets are to be implemented. BfN also participates in European and international expert groups to share experience and lessons learned with regard to biological offset implementation.

## International Capacity Building

The International Academy for Nature Conservation (INA) on the Baltic island of Vilm is a branch of BfN established as a platform for discussion and training on a broad range of national and international conservation issues. In addition to numerous national workshops, the INA hosts around 25-30 international training seminars annually targeting conservation practitioners from all over the world. The INA encourages dialogue between the various stakeholders involved in nature conservation activities, including scientists, policy-makers and representatives of government, civil society and the private sector. The INA also acts as a think tank to advance innovative conservation strategies and tools at national, EU and international level, with a focus on the CBD, the World Heritage Convention and EU policies. The INA offers the extra-occupational Klaus-Toepfer-Fellowship Programme to young conservationists with leadership potential from Eastern Europe, Caucasus and Central Asia to enhance individual and institutional capacity in the region by providing technical, management and leadership training ([www.bfn.de/klaus-toepfer-fellowship.html](http://www.bfn.de/klaus-toepfer-fellowship.html)).



## China

China is one of the world's megadiverse countries in terms of biological resources. Since 1994, a bilateral Sino-German environmental agreement has been in place that also addresses conservation, among other issues. In implementing this agreement, BfN provides scientific expertise and facilitates the exchange on a number of nature conservation issues such as protected area management, ecological

urban planning, sustainable land and forest management, adapting ecosystems to climate change and recently The Economics of Ecosystems and Biodiversity (TEEB). As part of the Task Force on Ecosystem Service and Management Strategy, co-chaired by the BfN President, BfN supported the China Council for International Cooperation on Environment and Development (CCICED) by informing policymakers about strategies for sustainable ecosystem management.



### Chinese-German Cooperation on Sustainable Forest Management

China's 12<sup>th</sup> Five-Year Plan (2011-2015) stresses the need to transform its forest sector towards sustainable forestry in order to better account for the multiple ecosystem functions of forests. Germany has developed a long tradition in sustainable forest management over the last three centuries. BfN fosters mutual learning on sustainable forestry, with a focus on integrating biodiversity aspects, by facilitating exchange and collaboration between scientists and forestry professionals from different Chinese and German organisations. In this context, a comparative assessment on forest management in Germany and China has been produced.

## Russian Federation

Bilateral cooperation with the Russian Federation in the area of nature conservation has a long tradition which is upheld by a permanent working group on Nature Conservation and Biological Diversity under the German-Russian Environmental Agreement. In this context, BfN has supported processes leading to a number of successful nominations for Natural World Heritage Sites in Russia. Activities have included capacity building for the preparation of nomination dossiers and management plans for sites such as Lake Baikal and the Putorana Plateau as well as reporting to the World Heritage Convention. Other important fields of cooperation with the Russian Federation are the transfer and ongoing development of conservation tools such as landscape planning and environmental impact assessment.



## Integration of Ecological Aspects into Territorial Planning

Russia is home to 35 % of the world's natural resources. Yet, in numerous parts of the country the exploitation of strategically important resources has a deteriorating effect on the environment. BfN provides advisory assistance to the Russian Federation for integrating resource conservation into territorial planning. This includes the application of ecological planning instruments and related adaptations in legislation, which contributes to the maintenance of ecosystem services beyond protected areas.



## Eastern Europe

BfN supports conservation initiatives in a number of countries in Eastern Europe (at present: Lithuania, Slovakia and Ukraine). Core areas of work are projects on sustainable development in and around protected areas as well as capacity building activities. With funding from the Advisory Assistance Programme of the German Environment Ministry, one of the projects supports a stakeholder dialogue in the Nemunas Delta Regional Park (Lithuania). The project aims to establish a participatory process that fosters sustainable development in the vicinity of the park as well as beyond the border to advance cooperation with Russian neighbours in the Kaliningrad region. Main issues of the dialogue are sustainable tourism, fisheries and agricultural use.



## Sub-Saharan Africa

BfN's activities in Eastern and Southern Africa are directed towards exploring and promoting approaches that integrate the conservation of ecosystems and species and the use of biological resources to contribute to sustainable development and poverty alleviation. UNESCO biosphere reserves have proven to be valuable instruments in this respect. BfN therefore supports UNESCO's regional network AfriMAB in implementing the MAB programme in Sub-Saharan Africa, e.g. by the development of a management handbook for biosphere reserves.

## Biosphere Reserves in Ethiopia

Ethiopia is a biodiversity hotspot and centre of origin for genetic resources of global importance. BfN supported the nomination of Yaya and Kafa Coffee Forests as Ethiopia's first biosphere reserves. Both designations aim to contribute to the conservation and sustainable use of the last remaining habitats of wild *coffea arabica*, the origin of many commercial coffee varieties. The marketing of wild coffee is a source of income for the local people and contributes to sustainable livelihoods, but the dwindling size of the rainforests caused by overexploitation threatens the resource base. More biosphere reserve nominations are currently in preparation in Ethiopia with the support of BfN.





## Central Asia

BfN's activities in Central Asia focus at present on Turkmenistan, Uzbekistan and Kazakhstan. An important element is the support of the establishment and management of large-scale protected areas (national parks, biosphere reserves and World Heritage sites). The selection of suitable protected areas and the implementation of national protected area networks is a central contribution to the CBD Programme of Work on Protected Areas (PoWPA). In Uzbekistan, BfN promotes sustainable land use strategies and training for young scientists and environmental NGOs.

The conservation of the Altyn Dala reserve, a valuable steppe ecosystem in Kazakhstan, is supported by a project under the Advisory Assistance Programme which aims at protecting this remaining natural grasslands in order to provide a habitat for several threatened and endangered species such as the saiga antelope.

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