The BfN's contribution to global nature conservation

SUSTAINING NATURAL SYSTEMS
FOR FUTURE GENERATIONS
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, Building and Nuclear Safety (BMUB). 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 BMUB.
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Preface

Dear Readers,

Nature does not stop at political borders, neither does nature conservation. Biological diversity is a global asset, providing the basis for human wellbeing as well as economic and social development. Albeit humankind’s dependence on nature and natural resources, the global loss of species and ecosystems caused by human activities continues at an alarming rate. More than ever, cooperation at an international level is required to jointly address the challenges that impede the achievement of global conservation goals.

The global community has decided to increase efforts and take action for a more sustainable future. The Sustainable Development Goals (SDG) as well as the Aichi Biodiversity Targets underline the importance of connecting human development to the conservation and wise use of nature and natural resources. 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 Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention on Wetlands of International Importance (Ramsar Convention), and the UNESCO World Heritage Convention (WHC). Regional agreements like the Alpine Convention, the Convention on the Protection of the Marine Environment of the Baltic Sea Area (HELCOM) and the Trilateral Wadden Sea Cooperation complete the list. The BfN’s international activities are guided by the goals and strategies enshrined in these conventions and agreements and aim to advance their implementation.

The BfN follows inter- and transdisciplinary approaches at the interface between science and policy. It is active in many fields of international nature conservation, joining hands with a large number of international partners in science, politics, civil society and business. This booklet introduces the key thematic areas, geographic regions and partnerships covered by the BfN’s activities. We hope that by reading this booklet we can further inspire your interest, enthusiasm and appreciation for international nature conservation, with the overall aim to sustain natural systems for future generations.

Prof. Dr. Beate Jessel
President of the German Federal Agency for Nature Conservation
The International Work of the BfN – Our Approach and Focus

Action for global nature conservation takes on various forms at the BfN. The BfN initiates and supports a broad range of bilateral and multilateral conservation programs and projects in cooperation with international and local partner institutions. We base our engagement on the decisions agreed upon by contracting parties of multilateral environmental agreements. For their implementation, we focus on key thematic areas and geographic regions building on a network of partners across the globe.

Key thematic areas emerge on the one hand within the framework of international agendas and agreements. New thematic areas also arise according to the government’s strategic agenda. In some cases, key thematic areas evolve from specific commissions or working groups that the BfN contributes to with its expertise. A strong focus lies on the valuation of biodiversity and ecosystem services. Other thematic areas include, for instance, natural solutions to combat climate change impacts, international trade of biological resources, protected area networks, and marine and coastal conservation.

In terms of key geographic regions, the BfN concentrates its activities in those countries or regions where longstanding, trustful cooperation has developed over the years. These include China, Africa, the Russian Federation, Eastern Europe, Caucasus and Central Asia. Here, the BfN has established valuable partnerships with governmental and non-governmental organizations. Together with these partners, the BfN undertakes a variety of measures and projects directed at the conservation and sustainable use of biodiversity and ecosystems. The exchange of expertise, mutual development and testing of innovative approaches, as well as joint learning and awareness raising are at the core of BfN’s activities.
Safeguarding Biodiversity

Our international work is largely based on the decisions and strategic plans of the Convention on Biological Diversity (CBD). The CBD’s current strategic plan includes the Aichi Biodiversity Targets, a set of 20 tangible goals to measure progress in biodiversity conservation. In order to accomplish these targets, the BfN advises and supports the German Ministry for the Environment, Nature Conservation, Building and Nuclear Safety and serves as the CBD’s National Focal Point of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA).

The BfN also promotes the United Nations Decade on Biodiversity 2011-2020 and its numerous initiatives and projects to foster the conservation of genetic, species and ecosystem diversity.

More recently, the BfN engages in capacity development for the work of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Ultimately, the adoption of the 2030 Agenda on Sustainable Development and its 17 Goals by the United Nations General Assembly in September 2015 provides a new comprehensive framework that guides the BfN’s efforts to integrate and mainstream biodiversity and ecosystems across sectors.
Valuing Biodiversity, Ecosystems and Their Services

Biodiversity and ecosystems form the basis of human life on earth and deliver numerous services we depend on. Among others, they provide us with food, fresh water, clean air, regulate soil and water cycles and reduce the risk of natural disasters. Yet, their increasing degradation and loss, primarily caused by climate change and growing land use pressure, is a serious concern across countries and continents. It tremendously reduces the benefits we derive from these services. The BfN shares the view that by assessing and valuing ecosystems and their services, this negative trend can be reversed. Therefore, the BfN supports the global TEEB (The Economics of Ecosystems and Biodiversity) initiative and aims at integrating the values of biodiversity and ecosystem services into political and economic decision-making processes.

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

According to the international TEEB approach, the BfN shares a broad understanding of economic values in the national study “Natural Capital Germany – TEEB DE”. The BfN offers opportunities for exchange on methodological approaches and the implementation of TEEB processes for partner countries such as China or Russia. A specific focus lies on bridging gaps between science and policy as well as supporting tools and instruments for implementation. In this context, payments for ecosystem services (PES) are considered a promising tool to reward land owners for biodiversity conservation especially in developing countries.
Promoting Natural Solutions to Climate Change

Climate change is one of the most serious challenges of this century and has severe impacts on people, fauna, flora and ecosystems. The BfN focuses on adapting its nature conservation strategies to the challenges faced by climate change. New ways are explored to strengthen linkages between sustainable land use and climate change adaptation and mitigation at national, EU and international levels. The BfN also contributes to initiatives in partner countries, which aim at the conservation, sustainable use and restoration of ecosystems that represent globally significant carbon sinks. Most projects are funded under the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety’s International Climate Initiative.

Close-to-Nature Forest Management in China

The Central Committee of the Communist Party and the State Council of China have adopted their Five-Year Plan (2016-2020) and the Reform Plan of state-owned forest farms. These plans aim at the improvement of the forest estate, recognizing the importance of ecological functions for the adaptive capacity and resilience of forests to climate change. The BfN contributes to fostering close-to-nature forest management in Chinese commercial forests with a focus on integrating biodiversity aspects. This will improve their adaptive capacity and resilience to climate change. Mutual learning is facilitated by exchange and collaboration between scientists and forestry professionals from different Chinese and German organizations. In this context, the BfN supported a comparative assessment on forest management in Germany and China.
Linking Conservation Standards to International Trade

International trade is a considerable factor in the continuous decline 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, the BfN issues import and export documents for protected species and is responsible for the prosecution of violations against CITES regulations. The BfN also promotes innovative and long-term conservation approaches to better protect heavily traded species groups such as snakes, Asian freshwater turtles, marine species and timber. In addition, it aims to generate synergies with other international policy processes. In order to build capacity for more effective CITES enforcement, the BfN organizes 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.

The Fight Against Ivory Smuggling — a New African Elephant Ivory Database

As a contribution to CITES’ African Elephant Action Plan to combat ivory smuggling, the BfN supports research and implementation that determines the age and geographical origin of elephant ivory, based on the chemical analysis of various radionuclide (age) and stable isotopes (origin). By combining the analyses of multiple parameters, the time of death or the origin of an elephant can be determined with a high degree of certainty. A user friendly website including the reference database and a description of the two analytical methods is available at www.ivoryid.org.
Fostering Protected Areas and Ecological Networks

Protected areas provide powerful tools for conserving biodiversity and delivering vital ecosystem services. The BfN cooperates with partner countries in establishing protected areas and designing effective management strategies, for example under UNESCO’s “Man and the Biosphere Programme”. The BfN also supports the development of ecological networks of protected areas and their surroundings as well as effective transboundary collaboration. For this purpose, participatory approaches and holistic development concepts are applied that integrate nature conservation and sustainable regional development. In the context of fostering ecological connectivity in the European Alps, the BfN co-chairs the Platform Ecological Network of the Alpine Convention, initiates and supports alpine-wide projects and encourages the establishment of pilot regions.

The European Green Belt and the Korean Demilitarized Zone

The strip of land along the former Iron Curtain between Eastern and Western Europe has remained almost undisturbed in many places, allowing for the development of valuable ecosystems. To protect and develop this unique former border area, the European Green Belt initiative aims at creating an ecological network that runs from the Barents Sea to the Black Sea, encompassing some of the most important species’ habitats and many distinct biogeographical regions of Europe. The BfN supports the European Green Belt initiative at both national and European level and is a founding member of the European Green Belt Association e.V.

In 2012 the BfN started a cooperation with the Gyeonggi Province in South Korea to share experiences on the Green Belt and the Korean Demilitarized Zone (DMZ). Similar to the European Green Belt, the 4 kilometer wide DMZ, and the 6-10 kilometer wide civil control zone adjoining to the south form a strip of land of largely undisturbed nature, thus creating a retreat for numerous endangered species.
Key Thematic Areas

Advancing Marine and Coastal Nature Conservation
Coastal zones and the world’s oceans are the most productive ecosystems in the world. However, these ecosystems are severely threatened by population pressure, pollution, eutrophication, over-fishing, seabed mining and other destructive activities. The conservation of marine and coastal biodiversity is therefore a priority at the international level and is addressed by conventions including the CBD and the UN Convention on the Law of the Sea (UNCLOS). The BfN takes part in the UN’s High Seas Working Group (BBNJ) 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, the BfN is the national authority responsible for conservation aspects in Germany’s Exclusive Economic Zone (EEZ) and the designation and management of marine protected areas. Furthermore, the BfN is in charge of the implementation of national and international species protection programs and of mitigating impacts of maritime human activities. The 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 (*Acipenser sturio*) and the Baltic sturgeon (*Acipenser oxyrinchus*) represent two of Europe’s most extraordinary, formerly abundant and commercially important fish in the North and Baltic Sea. For about two decades, the BfN has supported sturgeon reintroduction projects aimed at the re-establishment of self-reproducing populations. Activities include the improvement of habitat structures, for example, by an integrated catchment area management to restore river regimes. Thereby, the reintroduction of the sturgeon also paved the way and conditions for species with similar habitat needs. In past years, nearly 20,000 young European sturgeons have been released into the Elbe river system and more than half a million young Baltic sturgeons into the Oder and its tributaries.
Conserving our Natural World 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. The 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, Denmark and The Netherlands) and the Primeval Beech Forests of the Carpathians and the Ancient Beech Forests of Germany (Ukraine, Slovak Republic and Germany).

Beech Forests: Europe’s Natural Heritage

Beech forests comprise the potential natural vegetation of vast areas of Central Europe. Today, however, beech forests are threatened by settlement and forestry activities in many parts of their natural range. Therefore, the BfN supported the extension of the transnational UNESCO World Heritage property “Primeval Beech Forests of the Carpathians” in the Slovak Republic and Ukraine by five Ancient Beech Forests of Germany. A further extension to complete the series is currently under nomination and includes valuable beech forests in 10 additional European countries.
Key Thematic Areas

Developing International Capacity
The International Academy for Nature Conservation (INA) on the Baltic island of Vilm is part of one of the three branches of the BfN. The academy was established to provide 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 about 25-30 international training seminars annually, targeting conservation practitioners from all over the world. Due to its location and history it specifically focuses on nature conservation issues in Eastern Europe and Central Asia.

The INA encourages dialogue between the various stakeholders involved in conservation, including scientists, policymakers and representatives of government, civil society and the private sector. An international advisory committee supports the INA in its strategic planning and decision making. Workshop and seminar results are well documented and evaluations take place regularly.

The INA also acts as a think tank to advance innovative conservation strategies and tools at national and international levels, focusing on the CBD, the World Heritage Convention and the Convention on Migratory Species of Wild Animals (CMS) through existing cooperation agreements.

Klaus Toepfer Fellowship Programme
The INA offers the extra-occupational Klaus Toepfer Fellowship Programme to young conservationists with leadership potential from Eastern Europe, Caucasus and Central Asia. Its unique approach focuses on strengthening the participants’ management capacity, methodological competences and expertise in nature conservation. The BfN implements the two-year program with the support of a variety of partners from international organizations, such as IUCN, UNEP-WCMC and the CBD Secretariat. A major asset for the participants is the possibility to expand their personal and professional networks.
China

China is one of the world’s megadiverse countries in terms of biological resources. Since 1994, a bilateral Chinese-German environmental agreement has been in place that also addresses nature conservation issues. By implementing this agreement, the BfN provides scientific expertise and facilitates exchange on a number of conservation issues. Areas of cooperation include protected area management, ecological urban planning, sustainable land and forest management, ecosystem adaptation to climate change and the TEEB process. In addition, the BfN’s President co-chaired the Task Force on Ecosystem Services and Management of the China Council for International Cooperation on Environment and Development (CCICED), an important internationally staffed think tank.

Chinese-German Cooperation on Urban Biodiversity and Ecosystem Services

China is not only a country rich in biodiversity, but also faces one of the most dynamic urbanization processes globally. Municipal governments are challenged by environmental and health problems. Urban green spaces harboring biodiversity and offering ecosystem services to the urban population can reduce environmental risks, support adaptation to climate change impacts and at the same time contribute to citizens’ well-being and quality of life. The BfN commissioned the Sino-German Green Cities study in order to explore the values and potentials of urban ecosystems and identify solutions for implementation challenges, both in Germany and China. In the context of urban ecosystem research and planning as well as in the restoration and design of green spaces in cities, the BfN follows inter- and transdisciplinary approaches. Collaborations with multilateral organizations, (non-)governmental agencies, universities and academies at different levels underpin the Sino-German Urbanization Partnership.
Africa

The BfN’s activities in Africa are directed towards exploring and promoting approaches that integrate conservation of biodiversity and ecosystems and a sustainable use of natural resources, thus contributing to sustainable development and poverty alleviation. In this respect, UNESCO biosphere reserves are regarded as a promising concept and tool to integrate conservation, development, research and education. The BfN therefore developed close links to UNESCO’s regional network AfriMAB and a number of partner countries to contribute to the implementation of UNESCO’s “Man and the Biosphere Programme” in Sub-Saharan Africa. In this context, a series of workshops was organized recently to foster exchange on best practices among biosphere reserve managers and a comprehensive management handbook was jointly elaborated.

Biosphere Reserves in East and Southern Africa

In Ethiopia and Botswana, screening and feasibility studies as well as participatory processes triggered action towards the establishment of the first biosphere reserves. In Ethiopia, building on an extensive research project and following the designation of biosphere reserves by the UNESCO, the BfN also supported the development of effective management structures and plans. In the course of this collaboration, it was also demonstrated that integrating biodiversity conservation into income generating activities (e.g. harvesting and marketing of wild coffee and honey or ecotourism) can contribute substantially to sustainable livelihoods for local communities.
Russian Federation

Bilateral cooperation with the Russian Federation in the area of nature conservation has a long tradition at the BfN, which is upheld by a permanent working group on Nature Conservation and Biological Diversity under the German-Russian Environmental Agreement signed in 1992. In this context, the BfN supported processes leading to a number of successful nominations for Natural World Heritage Sites in Russia. Activities 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 related to the development of conservation tools and processes such as landscape planning, environmental impact assessment and the TEEB process.

Daurian Steppe

The Daurian Steppe extends over a large area in Mongolia and Russia. It has been recognized as one of the 200 Global Ecoregions of WWF. This landscape, which is virtually unaffected by human activity and characterized by high biological diversity, is one of the best preserved Eurasian steppes. Wetlands of the ecoregion serve as important habitats for many bird species. Only joint efforts by both countries can contribute to maintaining the unique ecosystems and rare species of flora and fauna of the steppe. The BfN provides scientific advice to the preparation of a nomination dossier for the transnational Russian-Mongolian UNESCO World Nature Heritage nomination of the “Landscapes of Dauria”.
Eastern Europe, Caucasus and Central Asia

Funded by the Advisory Assistance Programme of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, the BfN supports conservation projects in a number of countries in Eastern Europe, Caucasus and Central Asia. One of the transnational projects is related to establishing sustainable tourism in the Carpathian Mountains, involving a large number of stakeholders of the seven Carpathian countries.

In Central Asia and the Caucasus, 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 are a central contribution to the CBD Programme of Work on Protected Areas.

Through its Klaus Toepfer Fellowship Programme, the BfN contributes to the capacity building of young nature conservation professionals of these regions.

Aral Lake

The history of the Aral Lake is an impressive example of the impact of non-sustainable water use. Originally one of the largest inland lakes in the world, large-scale irrigation practices that diverted the surrounding rivers led to a dramatic decline of the lake area in the last century. Today, the current area is split into separated smaller lakes, of which the North Aral Sea is the best conserved.

In close cooperation with relevant Kazakh and German partners, the BfN conducted a feasibility study in order to assess the nature conservation potential of the northern coastal line of the North Aral Lake, home to many endemic species. The findings suggest substantial conservation potential for the area which offers a number of management and implementation options.
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