

# DEFYING EXTINCTION

PARTNERSHIPS TO SAFEGUARD GLOBAL BIODIVERSITY



EDITED BY LISA FITZPATRICK  
FOREWORD BY MONIQUE BARBUT • INTRODUCTION BY GUSTAVO A. B. da FONSECA

## Of all environmental ills, biodiversity loss is the only one likely to be irreversible.

Unfortunately, biodiversity is being lost today at a scale that will threaten the life-support systems that sustain societies and economies, particularly in the developing world. The Global Environment Facility was established as the financial mechanism of the Convention on Biological Diversity, helping developing and transition countries to meet their bold commitments before this international accord. Since 1991, the GEF has invested over \$2.9 billion, leveraging \$8.3 billion in co-financing, to support implementation of more than 1000 projects in more than 155 countries, to conserve and sustainably use biodiversity.

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EARTH IN  
**FOCUS**



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET



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# FOREWORD

## Defying Extinction: Partnerships to Safeguard Global Biodiversity

Monique Barbut

CEO and Chairperson, Global Environment Facility

**B**iodiversity is more than just the number of animal and plant species in the world. Biodiversity is who we are, what we eat, where we live, what we do and, most importantly, how all of these things come together to form a whole. The preoccupations of our daily lives often blind us to the dangers threatening fragile ecosystems around the globe. But we ignore these threats at our peril, for we are all connected to the many facets of the planet's diverse ecosystems. Biodiversity is the fabric that binds us all together, allowing healthy environments to flourish, economies to develop, and humanity to grow and prosper. Whether we realize it or not, the story of biodiversity is our story.

This publication highlights some of the most threatened pieces of the fabric of biodiversity, specifically individual species at risk. Through stories of the GEF's efforts to preserve diversity across the globe, from Romania's Maramures Nature Park to the Paraguayan Wildlands, this book illustrates how far we have come, the successes we have enjoyed – and highlights what will be required of us in the future.

With the vast array of environmental challenges in today's evolving world, in particular the potentially devastating effects of global climate change, this book focuses on one of the most pressing matters facing us all: the loss of our planet's biodiversity, which is occurring at unprecedented rates. The vast, rich and wondrous variety of life on Earth is rapidly disappearing. Thousands of species face extinction. Thousands have already been lost. Livelihoods and cultures are being irrevocably disrupted. This is happening not only in the developing world, but across the globe. The Japanese wolf, for example, was once a dynamic symbol in the lore of Japanese culture, a cultural icon revered in children's stories and worshipped as a deity in Shinto shrines. With its extinction over a century ago, the meaning behind this iconic figure has been forever changed.



WILD REINDEER, FOROLLHOGNA NATIONAL PARK, NORWAY, VINCENT MUNIER, WILD WONDERS OF EUROPE

As the world adapts to meet the changing and ever-growing needs of human development, including food, water and other resources, our environment is bearing unmanageable loads that are having devastating effects. As these loads increase, the need for further investment in biodiversity conservation efforts grows more urgent. More than ever, our efforts are needed to preserve what is left, by protecting wetlands, controlling invasive species and conserving natural resources.

Luckily, there is help. Over the past decade, the GEF has become a global force in providing innovative and effective solutions to biodiversity challenges. As the financial mechanism for the Convention on Biological Diversity, the GEF supports projects in both the public and private sectors. Biodiversity projects constitute 36 percent of the GEF portfolio, making it the largest of all the GEF's project areas. During the 2010 International Year of Biodiversity, the GEF has centered its mission to conserve biodiversity on four specific goals:

- to increase public awareness;
- to promote solutions to biodiversity threats;
- to call on individuals, communities, nations and the international community to act now; and
- to initiate dialogue among stakeholders for further endeavors.

At both the local and international level, the GEF is making great strides toward this mission. Locally, the GEF recognizes the importance of projects to protect individually localized species.

One example is the Saiga antelope, which for millennia has grazed on the steppes of Central Asia from Eastern Europe to China, but in recent decades has become significantly threatened. Today, this species represents one of the most dramatic population crashes in recorded history. The GEF is devoted to promoting healthy host ecosystems for this threatened species by working with UNDP and the Altyn Dala Conservation Institute in Kazakhstan to promote the antelope's survival, through anti-poaching actions and better landscape management to protect steppe habitat reserves.

An example of the GEF's international efforts is the Sustainable Forest Management and REDD+ program, which provides incentives for developing countries to reduce emissions from forested lands, not only slowing the degradation of forests but also contributing to the sustainable development of communities in those countries.

In addition to longer-term projects and programs, the GEF has also shown its prowess for action and rapid response to urgent biodiversity needs through its Short-Term Response Measure (STRM) projects. Specifically, in 2008, the GEF worked with UNDP to quickly come to the aid of the already fragile giant panda population after the Wenchuan earthquake struck China. The GEF's ability to rescue pandas and the other rare species in this book illustrates the agency's effectiveness at implementing change on short notice.

Earlier this year, the GEF received a record-high funding of \$4.3 billion for its fifth replenishment cycle. With this new replenishment, the GEF will seize the opportunity to strengthen its efforts and expand its resources. And it is my every hope that, as we pursue these endeavors, the GEF will continue its role as a catalytic force in reducing threats to biodiversity today.

# INTRODUCTION

## Conserving Species, Protecting Biodiversity, Safeguarding the Planet

Gustavo A. B. da Fonseca

Team Leader, Natural Resources, Global Environment Facility

In 2002, the 6<sup>th</sup> Conference of Parties to the Convention on Biodiversity (CBD) committed to achieving, 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.” It is now 2010 and, sadly, we have collectively missed this global target. Given the destructive trends that spanned the period covered by the 2010 target, and the lack of resources commensurate with the growing scale of the challenge, this result should not have come as a surprise. Nevertheless, this failing should be seen as a wake-up call to strengthen or to radically change the processes that the international community has established to tackle global environmental issues. As the global community contemplates the next set of targets for biodiversity and the means to achieve them, particularly through the CBD, there is a need to seriously regroup and reflect on the multiple dimensions of the problem.

Biodiversity loss is manifested at a variety of scales – genetic, population, species, community and ecosystem – as are the drivers of its progressive degradation. The consequences of biodiversity loss are also scale-dependent: losing an entire ecosystem is more impactful than the loss of a single species population or certain genes. Because the cumulative impact of the overwhelming number of local biodiversity crises has created a problem of regional and global proportions, the call for broad-scale, wide-ranging conservation responses is understandable. The compelling logic that promotes the need to conserve large landscapes through ecosystem-wide strategies becomes particularly appealing when resources are scant.

However, there can be significant trade-offs in the implementation of landscape approaches to conservation when they lose focus on what happens to individual species and local populations. It is not hard to find examples of these trade-offs. For example, the Global Environment Facility (GEF), the largest financier of projects to conserve globally relevant biodiversity, has



spent approximately \$100 million over the past 19 years in the protection of habitat that should, in principle, be suitable for tiger (*Panthera tigris*) populations throughout the 14 countries in the tiger's current range. Yet, during this same period, wild tigers were reduced to fewer than 3,500 individuals, down from about 9,000 in 1999. The species is now considered Endangered by the IUCN, meaning that it is considered to be facing a very high risk of extinction in the wild. Such investments by the GEF and other organizations in the wider tiger landscapes, sometimes referred to as the “coarse filter approach,” have certainly resulted in many benefits, as measured by the forests conserved and the wealth of other species they harbor. But we wouldn't be meeting our goal if, in the midst of obtaining these broader results, we allowed keystone species like the tiger and many others to fall through this coarse filter. Therefore, we also need to dedicate our attention to protecting globally relevant threatened species through focused actions that complement the landscape approach.

GEF resources have indeed benefited a host of threatened species and their habitats. In just four years, between 2002 and 2006, the GEF invested \$108 million in 24 projects spanning the habitats of hundreds of threatened species worldwide, and attracted \$220 million in co-financing. Since its inception, the GEF has spent a total of \$398 million (and leveraged \$771 million in co-financing) in areas covering the distribution of 647 species considered threatened by the IUCN Red List, representing nearly 17 percent of all historical investments in the biodiversity focal area.

Yet, while it is not uncommon for projects submitted for funding under the GEF biodiversity focal area to be justified on the plight of national endemics and globally threatened species, the implementation of these same projects tends to emphasize landscapes and ecosystem-level actions that do not always include strategies to protect and restore populations of threatened species. In the GEF-5 investment cycle (2010-2014), a key refinement is being introduced to explicitly acknowledge the

need to support the expansion of threatened species coverage in protected area systems. Given that more than 70 percent of all species owe their threatened status to the loss of habitat, this directive can help to fill important gaps in protected areas at the national level.

Some pilot investments focusing on high priority threatened species have already been initiated in GEF-4 (2006-2010). One example in this book is a project that is being implemented by the United Nations Environment Programme (UNEP) and executed by international and local NGOs at a series of pilot sites of the Alliance for Zero Extinction (AZE) in Peru, Bolivia, Ecuador and Colombia. The project, which is designed to demonstrate how community-based models can benefit local societies by protecting species and ecosystem services, is executed by the NGO Rare conservation. Through this concept, flagship species are built into education and capacity-building programs and become particularly helpful in community-based “pride campaigns” focused around the management of natural resources. Endemic species (those restricted to a locality, state or country) can also become icons of cultural identity and act as magnets to mobilize public awareness and trigger policies that support sound environmental stewardship. For example, the mission of the AZE, which is to protect the habitat of Critically Endangered and Endangered species that depend on a single site for their survival, was reinforced recently by a Memorandum of Cooperation between the AZE and the Secretariat of the Convention on Biological Diversity, signed during a plenary session of the 14th meeting of the Convention’s scientific advisory body (SBSTTA). We hope this early action will encourage many more countries to join in the AZE alliance and use the framework to expand the coverage of their protected area systems to include critical habitat for endangered species.

Although the conservation community is starting to take concrete steps to protect globally relevant species, there is still a vital missing link that is necessary to effectively scale-up these efforts—namely the private sector. The Save Our Species (SOS) program is an emerging partnership between the GEF, the World Bank and the IUCN that explicitly draws on opportunities to work with businesses and corporations that have built their logos and brands around features possessed by thousands of species worldwide. As many of these companies should have a vested interest in becoming involved in solving the immediate crisis of potential species extinction, the SOS initiative aims to provide incentives for private sector engagement in species conservation efforts around the world. As in other species projects, SOS is predicated on the assumption that conservation action at this scale serves many purposes beyond preventing the extinction of species that are known to be on the verge of disappearing forever. These additional benefits include raising public awareness, coalescing local communities around the plight of biodiversity conservation, and, through these actions, protecting the habitats of many other lesser-known species. The World Bank and GEF have each contributed \$5 million to initiate the SOS project, with the objective of matching these funds through private sector engagement and a vision to build a large species conservation fund by 2015. The SOS initiative, administered by the IUCN, will become operational in the second semester of 2010, with the disbursement of the first batch of grants.

Another large-scale effort to protect threatened species is the Critical Ecosystem Partnership Fund (CEPF), an initiative launched in 2000 by the GEF, the World Bank, the John D. and Catherine T.

MacArthur Foundation and Conservation International, and later joined by the government of Japan and the French Agency for International Development (AFD). The CEPF is already an active global program that has granted \$124 million to protect biodiversity hotspots that are home to hundreds of threatened and endemic species. CEPF investments particularly target the Key Biodiversity Areas (KBAs), which are vital for the survival of globally threatened species; many illustrative projects are included in this volume.

In total, this book includes a sample of 23 case studies of projects funded by the GEF, implemented by UNDP, the World Bank and UNEP, and executed by dozens of local partners in Africa, Eastern Europe, Central and Southeast Asia and Latin America. This beautifully illustrated sampling of initiatives demonstrates how targeted action at multiple levels has helped to improve the conservation status of over 30 species, including several that are Critically Endangered or Endangered in the wild. It also includes a chapter to highlight how we might be losing less conspicuous species, such as those found in cave habitats. Finally, the book also touches on projects that are maintaining populations of species that are not currently threatened. This serves to illustrate our goal to support efforts to maintain healthy populations in the wild, preventing them from becoming threatened in the future.

On the other end of the spectrum, are species on the brink of extinction. In this photographic book, we failed to produce an image of the uluguru bush shrike, a bird from Tanzania, illustrated here by a drawing. These and other examples will hopefully demonstrate that conserving species that we know will perish in the wild in the absence of direct intervention is a multi-generational moral imperative. Some influential commentators have begun to argue convincingly that human-induced species extinction should be considered on a par with slavery, child labor and racism as being unacceptable to our societies. Equally important is the fact that the pursuit of species conservation is in our own best interest, as it can also help trigger an ever-expanding virtuous cycle: when the tide for a particular species shifts for the better, it is often the case that natural resources management has taken a more sustainable path. It is also an indication that capable institutions are being established, that adequate governing mechanisms are starting to take root, and that services such as clean water and soil fertility are being provided by healthy habitats and ecosystems, all of which tend to benefit disproportionately those in our societies most in need of livelihood improvements.

We cannot and should not let species conservation fall by the wayside. With the wealth of lessons accumulated over many decades, the conservation community knows what needs to be done and has repeatedly demonstrated that well-designed strategies to protect species can deliver successful results. At GEF, we would like to help boost the revitalization of this sometimes overlooked key objective in our global quest to protect biodiversity. We hope that this book, with its stunning photography and rich accounts from all around the world, can inspire others to participate in the resurgence of a global movement directed at species conservation. We all have something to gain from it.

# AFRICA

**SOUTHERN RIGHT WHALE** NAMIBIA, SOUTH AFRICA **LEAST CONCERN**

**DAMARA TERN** NAMIBIA **NEAR THREATENED**

**PEMBA FLYING FOX** TANZANIA **VULNERABLE**

**ULUGURU BUSH SHRIKE** TANZANIA **CRITICALLY ENDANGERED**

**TAITA THRUSH** KENYA **CRITICALLY ENDANGERED**

**LOVERIDGE'S SUNBIRD** TANZANIA **ENDANGERED**

**SANJE MANGABEY** TANZANIA **ENDANGERED**

**WILD DOG** KENYA **ENDANGERED**

**BLACK RHINO** NAMIBIA **CRITICALLY ENDANGERED**



# BLACK RHINO

*(Diceros bicornis)*

**CRITICALLY ENDANGERED**

NAMIBIA

GLOBAL ENVIRONMENT FACILITY PROJECT: Strengthening the Protected Area Network  
PROJECT REPORT BY: Nik Sekhri  
AGENCY: United Nations Development Programme  
PARTNERS: Government of Namibia; Namibia Nature Foundation; Southern African Institute for Environmental Assessments; USAID; KFW; GTZ; CI; WWF-UK; NAMDEB

The black rhinoceros (*Diceros bicornis*) is a unique desert-dwelling species, well adapted to the arid climate of northwest Namibia. This Critically Endangered species<sup>14</sup> can commonly go without water for three or four days but, like most living things, it ultimately depends on permanent sources of water to survive.<sup>15</sup> As a result of the limited food and water sources in their habitat, these herbivores typically forage across some 2,500 kilometers for the plants, branches and shoots that compose their diet.<sup>16</sup>

The 20th century saw dramatic declines in black rhinos across their ranges in sub-Saharan Africa; gun-toting hunters seeking sport and profit were—and continue to be—the single greatest threat to this species. The black rhino population, which once numbered in the hundreds of thousands,<sup>17</sup> reached its lowest population count in the early 1990s; approximately 2,300 are now present in the wild.<sup>18</sup> Nearly 98 percent of the black rhino population now lives in only four countries (Namibia, South Africa, Kenya and Zimbabwe)<sup>19</sup>—a significant reduction in their distribution across the region. Poaching continues to represent a major threat to these creatures, with a high

*As a result of the limited food and water sources in their habitat, these herbivores typically forage across some twenty-five hundred kilometers for the plants, branches and shoots that compose their diet.*

demand for their horns driving illegal trade in China, Yemen, South Korea and other countries.<sup>20</sup> Anti-poaching and conservation efforts remain critical to their protection.

The Strengthening the Protected Area Network (SPAN) project area houses 95 percent of the subspecies *Diceros bicornis*, one of the three subspecies listed as Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List (the fourth and last subspecies, *D. b. longipes*, is listed as Extinct in the Wild<sup>21</sup>). To reduce the threat to the black rhinos and other species, this UNDP-GEF project has provided training and equipment to rangers responsible for enforcement; however, it is too early to gauge the effectiveness of this investment in deterring poaching. The project has also initiated species monitoring at two protected areas, and has been involved in maintaining traditional wildlife migration corridors in Etosha Park and Skeleton Coast Park, which include critical black rhino habitat. Improved management of these and other national parks in Namibia will help to secure the habitat for the black rhino.



THIS PAGE: RHINO EYE, AFRICA, ART WOLFE, ILCP  
TOP RIGHT: BLACK RHINO, LAKE NAKURU NATIONAL PARK, KENYA, ART WOLFE, ILCP  
BOTTOM RIGHT: BLACK RHINOCEROS, MASAI MARA NATIONAL RESERVE, KENYA, ART WOLFE, ILCP

