



KfW Development Bank

»»» Materials on Development Finance

Protecting nature's riches, preserving the basis for our existence.

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Biodiversity at KfW Development Bank

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Introduction and Executive Summary

Several dozen species perish every day. This is why scientists are already talking about mass extinction, as important ecosystems are being lost around the world, and with them, important services that nature provides to humans. If we imagine the entire history of Earth as one 24-hour day, humanity has only been living on this planet for two minutes. In this short time, however, it has already overexploited three quarters of the globe. In order to preserve the basis for humanity's existence, we need to protect the remaining havens for nature.

If species loss continues at its current rate, it will be impossible to achieve 80% of our sustainability targets, because everything depends on nature: food, water, medicinal herbs, raw materials. Nature is not just pleasant to look at and restorative to be around; it also provides a large number of services without which humans cannot survive. And once again, COVID-19 has clearly shown the consequences we can expect when forests are burned down, entire regions are destroyed and wildlife is wiped out: it makes it easy for viruses to spread. Protecting areas of nature must be seen as a priority on a level with climate change, not least with a view to preventing these zoonoses. Otherwise we face an existential crisis.

Preserving biodiversity has been important to KfW Development Bank for a long time now. It has over twenty years of experience in this field and currently promotes significantly more than 800 conservation areas and other effectively managed areas¹ in 59 countries. These cover a total area of at least 1.94 million km² and corresponds to about 5.5 times the area of Germany (or the area of Mexico). KfW's activities focus on Latin America and Africa. In addition to its goal of increasing the size of the area under protection – scientists and NGOs recommend 30% by 2030 – KfW is involved in managing these areas effectively and fairly and ensuring the social and economic well-being of those living nearby. Also, for this reason its projects adhere to strict international social and ecological standards.

KfW is among the trailblazers when it comes to developing innovative financial instruments for sustainable conservation. KfW – on behalf of the German Federal Government – has created several exemplary funds that have taken conservation to a new level both conceptually and financially; examples include the “Caucasus Nature Fund” for conservation in the Caucasus, and the “Blue Action Fund” to promote marine conservation worldwide. On behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), KfW set up the “Legacy Landscapes Fund” at the end of 2020. By 2030, it should have helped to ensure that the most important conservation areas in partner countries have robust financing, thereby preserving them. The trust also involves numerous other donors, including philanthropists. The LLF was officially launched in May 2021 and has now selected some pilot parks for funding and organised an initial call for proposals, so that more areas will be added soon.

KfW's overall aim is to turn the tide on biodiversity loss. Conservation areas play a key role in this, but they are not the only tool. Sustainable agriculture, fishery and forestry are also important in helping to end the unprecedented and dangerous loss of biodiversity and reverse the trend.

¹ OECM (other effective area-based conservation measures) “is a conservation designation for areas achieving the effective in-situ conservation of biodiversity outside of protected areas” (IUCN).

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1. Introduction

Whether it's food, water, construction materials or medicinal plants – nature, in all its variety, forms the basis for human survival; forests provide a habitat for the majority of animal and plant species on Earth and they offer a home and a source of income to nearly two billion people. The seas give us food, regulate the climate and produce half of the oxygen we breathe. Intact ecosystems also increase resilience in the face of natural disasters and climate change. In short: the protection and sustainable use of biodiversity ensures our survival.

And yet, this diversity is under threat from forests being destroyed, animals being poached, soils being overcultivated, oceans being polluted and overfished, natural resources being depleted, and an increasing number of areas being sealed. Alongside changes in land use and overexploitation, climate change is now one of the main drivers of species loss. The preservation of biodiversity has long been a major concern at KfW Development Bank and it will play an even greater role going forward in light of the current threats. KfW's global commitment in this area is based on the German Federal Government's specifications and international treaties.

The Convention on Biological Diversity (CBD) provides the binding legal framework. Almost every country in the world has now ratified this convention. Its main objectives are to ensure the protection and sustainable use of biodiversity and natural resources as well as the fair distribution of the resulting economic gains. Equal opportunities also play an important role in the convention. In 2010, the parties of the CBD approved a "strategic plan" with 20 "Aichi Targets". These are guiding principles for global action and implementation at national level during the UN Decade on Biodiversity 2011–2020. However, the strategic plan expired at the end of 2020.

None of the Aichi Targets has been met by the end of 2020, which puts other global targets at risk as well. In its latest report, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) makes clear that it will not be possible to achieve 80% of global Sustainable Development Goals (SDGs) and key aspects of the Paris Agreement without effective measures to preserve biodiversity. As a result, it assesses that dramatic loss of biodiversity is just as significant as climate change. The World Economic Forum's Global Risk Report now even lists biodiversity loss as a global top risk²:

Alarming

Up to a million species are at risk of extinction and, for many, this will occur in the next few decades. Today, the rate at which species are dying out is between ten and one hundred times higher than the average rate over the last ten million years.

The most important factors

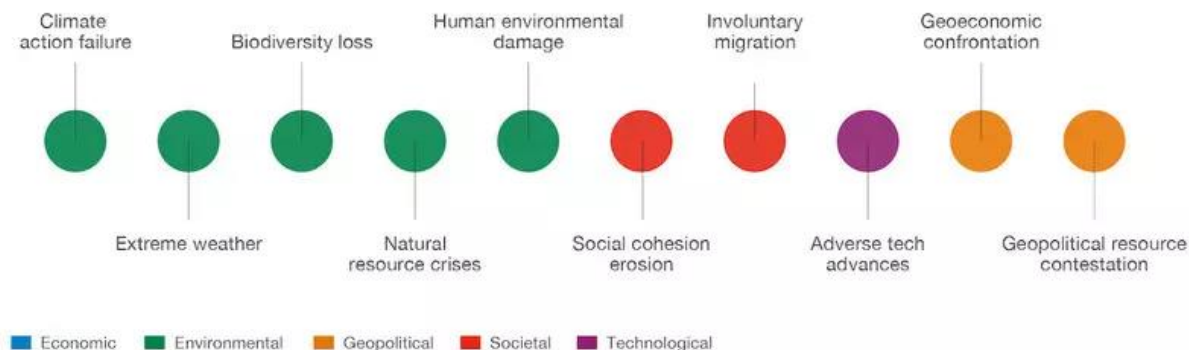
The main drivers of biodiversity loss are changes in land use, general overexploitation, climate change, environmental pollution and the spread of invasive species.

² https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf

Top Long-Term Global Risks



Over the next 5-10 years



Source: World Economic Forum Global Risks Report 2022

Source: World Economic Forum / Global Risks Report 2022

The draft of the new Biodiversity Strategy (Global Biodiversity Framework (GBF)), which the CBD signatories are negotiating, sets out global targets to be achieved by 2050, and action-based interim targets to be achieved by 2030. They are intended to reduce biodiversity loss while also meeting humanity’s needs via sustainable usage and benefit sharing. They are also supposed to point out solutions and ways that biodiversity can be taken into consideration in other areas of societal development. All of this acknowledges the fact that protected areas are important, but that they alone will not be enough to end biodiversity loss.

The CBD has resolved to design new targets that are both ambitious and realistic – a difficult task, and one that the signatories are now struggling with. A decision on this will probably be taken at the 15th Conference of the Parties, which is likely to be held in winter 2022. The conference was postponed several times due to the Corona pandemic. Active participation by all relevant stakeholders, especially indigenous people and local communities, is important to achieving the targets. However, it is not yet clear where the funding, capacity and technology needed to make the targets a reality will come from.

KfW is supporting the German Federal Government in making its targets more ambitious and then putting them into practice. Since 2013, the German government has made at least EUR 500 million pr year available for biodiversity conservation. Most of the funding is provided by the BMZ (EUR 400 million annually), which in turn has around two-thirds of it implemented by KfW. This publication provides an overview of how KfW uses these funds and which projects and programs it supports exactly with them.

The impact of humans

Around three quarters of the world’s land and around two thirds of the sea have been altered through human activity. Among other things, this has led to the loss of more than 85% of wetlands in the past 300 years, half of living coral has disappeared since 1970, and the amount of forest worldwide is only 68% of what it was in the pre-industrial era.

2. Biodiversity at KfW

Through the work of KfW, Germany is one of the world's biggest donors for the conservation of biodiversity. KfW currently promotes 318 projects in 45 countries and 15 cross-border project regions which have the primary or secondary goal of protecting biodiversity. The total volume amounts to some EUR 3.32 billion³. Measures that pursue biodiversity conservation as a secondary goal are taken into account on a pro rata basis of 20% of the project volume. Latin America receives almost one third of the funds, followed by Africa, which receives around 30%.

Comparison

Germany is one of the world's most important donors in the field of biodiversity conservation.

Projects with primary/secondary goal biodiversity under implementation 2021 (in EUR million)

Budget and market funds¹

	BMZ	BMU	Mandats	Total
Africa	995.1	0	1.9	997.0
Asia	528.1	47.1	9.3	585.4
Europe	279.0	9.5	3.2	291.8
Latin America	799.8	58.5	181.0	1,039.3
North Africa / Middle East	5.1	0	0	5.1
Supraregional ^{II}	371.5	0	30.0	401.5
Total	2,978.7	115.1	225.3	3,319.1

Source: own representation

¹ figures rounded

^{II} Global Crop Diversity Trust Fund, Legacy Landscapes Fund & Blue Action Fund

The portfolio continued to expand between 2016 and 2021. Despite pandemic-related restrictions, the total volume of project appraisals is higher than last year, with 41 projects, and the total sum of EUR 728.1 million is only EUR 20 million lower than in 2020. In 2021, the total volume of the 43 new financing agreements was around EUR 865.8 million. This exceeded last year's total by 42% and is almost three times higher than in 2016 (EUR 274.6 million). In addition, the amount disbursed for projects with biodiversity as a main or secondary objective has grown by 22% year-on-year to EUR 615.4 million. In light of the continuing loss of species, the figures for biodiversity conservation are likely to increase further.

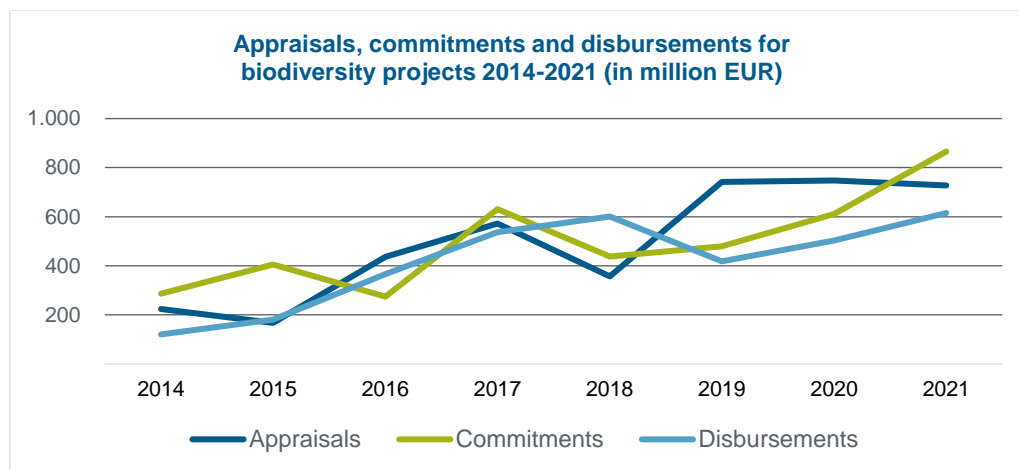
The main clients in the field of biodiversity/natural resources are the BMZ and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Consumer Protection (BMUV).

Commissioned by BMZ

KfW Development Bank's main clients in relation to biodiversity and natural resources are the BMZ and the BMUV.

³ Total for all ongoing programmes as at 31 December 2020.

Since 2009, the commitments for biodiversity have also included “market funds”. These are funds that KfW picks up on the market and passes onwards to partner countries as low-interest loans. The – heavily fluctuating – proportion of these funds in promotional commitments reached a high of 39% in 2017. The beneficiaries were emerging economies like India, China and Mexico. Use of market funds could increase significantly in the future, particularly in emerging economies.



Upwards trend

The overall trend points upwards. Because conservation projects are long term, shifts between years are possible.

Source: Own representation⁴

The marine conservation areas receiving support cover an area of nearly 140,000 km², representing 7% of the total protected area. This proportion is likely to increase in the next few years, especially due to the funding activities of the Blue Action Fund. This fund is a non-profit trust for coastal and marine conservation established in 2016 by the Federal Ministry for Economic Cooperation and Development and KfW, which is now internationally established and supports a marine protected area as large as Germany.

⁴ Figure is not comparable with previous publications, as figures were compiled differently.

Conservation areas financed by KfW worldwide (2021)ⁱ

Budget and market funds

	World	Africa	Asia	Europe	Latin America
Number of areas	847	205	214	42	386
Countries	59	23	15	6	15
Surface (in 1,000 km²)	1,947	813	273	10	851
Forests (mostly tropical forests)	1,122 (58%)	141	195	5	779
Steppes and savannas	657 (34%)	622	29	0	6
Coastlines and seas	139 (7%)	48	36	0	55
High mountains	27 (1%)	3	12	4	8
Inland waters	2	0.2	0.4	0.4	1
Number of ongoing projectsⁱⁱ	176	68	35	33	26
Project volume (in EUR million)	1,924	680	338	236	352
Disbursements 2021 (in EUR million)ⁱⁱⁱ	369	97	33	83	33

Source: own representation

ⁱ figures rounded

ⁱⁱ In the second part of the table, nine supraregional projects are included in the totals that cannot be assigned to a continent (Blue Action Fund and Legacy Landscapes Fund): their current project volume is EUR 317 million, EUR 123 million of which was disbursed in 2021.

ⁱⁱⁱ Disbursements for all projects active in protected areas on 31.12.2021, therefore also including payments outside protected areas. Projects exclusively active outside protected areas (e.g. activities for the resident population) are not included.

Several hundred areas

KfW supports more than 847 conservation areas in 59 countries worldwide. In 2021, the volume of ongoing programmes totalled close to EUR 1.92 billion.

Aim of promotion

Working towards the goal of preserving as many natural and near-natural habitats as possible, KfW is active in the following areas:⁵

- **Terrestrial and marine conservation areas and systems** (around EUR 1.92 billion): identifying new areas and protecting existing ones by improving equipment and infrastructure and management as well as securing permanent financing
- including **forest conservation** (areas with formal protected status) in 87 projects (around EUR 974,5 million)
- **Forest management** in 109 projects (around EUR 1,342.3 million)
- **Forest and Landscape Restoration** (FLR) in 65 projects (around EUR 837.5 million)
- Forest conservation as **climate change mitigation** (Reducing Emissions from Deforestation and Forest Degradation, REDD) (around EUR 2,245.3 million)⁶
- **Deforestation-free supply chains** in 22 projects (around EUR 353 million)
- **Forest Law Enforcement Governance and Trade** (FLEGT) in 5 projects (around EUR 57,5 million)

Promotional policy

KfW's goal is to preserve natural habitats as fully as possible.

Instruments and standards

The principles of environmental and social due diligence and sustainability are, in accordance with the bank's Sustainability Guideline,⁷ central themes for KfW Development Bank, including in the field of biodiversity. All measures undergo a structured environmental and social impact assessment (ESIA). The ESIA is intended to identify any foreseeable negative effects and risks that a project may have on the environment and on matters related to society and human rights. Identifying these factors enables suitable measures to be applied so the effects can be avoided, reduced to an acceptable minimum or balanced out.

The benchmarks for the assessment process are the World Bank Group's Environmental and Social Standards, the International Labour Organisation's (ILO) core labour conventions, additional stipulations set out by the BMZ on matters such as human rights, and recommendations in the Food and Agriculture Organisation's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT).

One of the interdisciplinary issues within the assessment process focuses in particular on avoiding risks to human rights during biodiversity projects, for example, in relation to indigenous people and the land rights of local communities. Having as small an impact as possible on local livelihoods and opening up alternative sources of income and social-economic development opportunities to people living in conservation areas are key elements of sustainable conservation projects.

High standards

Conservation at KfW adheres to high social, ecological and human rights standards. These are based on the relevant international standards and agreements.

⁵ Projects often contribute to more than one aim; this may mean that some are counted multiple times. This is why the total amount cited here is higher than the total volume for the projects.

⁶ Figures are not comparable with previous publications due to changes in the population.

⁷ KfW Sustainability Guideline (2016): Assessment of Environmental, Social and Climate Performance. Principles and Process.

3. Biodiversity by subject area

3.1 Conservation areas

Outstanding examples of the richness of nature need special protection as they form part of our identity, culture and history. That is why it is important to many people that, for example, the coral reefs of the Caribbean, the gorilla population of the Congo Basin, and the tropical rainforests of Sumatra are kept intact for future generations. An important tool for preserving these precious natural resources are conservation zones, particularly national parks.

Conservation areas are also crucial to protecting the climate and adapting to climate change. Intact ecosystems can store more carbon and are better able to cope with the effects of climate change.

The Legacy Landscapes Fund: a conservation fund

Nature is being lost at a tremendous pace: for example, an area of forest the size of a football pitch is cut down every four seconds. Biodiversity loss has not been prevented despite various international agreements; if anything, it has in fact accelerated further in recent years. Species are going extinct 10 to 100 times faster today than would be the case without the impact of humans. Well-managed conservation areas are seen as the best way to preserve biodiversity, if local people get involved. Indigenous people and local communities have often been preserving their land for centuries and are able to protect the basis for their existence with appropriate conservation concepts.

At present, only 17% of land is protected – considerably less than the 30% recommended by scientists and numerous stakeholders worldwide. And the conservation areas that exist often do not work effectively enough to prevent biodiversity loss. The reason? Around 80% of all species are concentrated in about 20% of the world's surface, mostly in developing countries. There is often a lack of funds to manage conservation areas effectively and in accordance with the interests of the local population.

This is why KfW, on behalf of the German Federal Government and in cooperation with other international players, set up the "Legacy Landscapes Fund" (LLF) in late 2020. The idea behind it is as simple as it is alluring: protecting as many species and ecosystems as possible in the world's high-biodiversity, low-income regions, will be key to survival for the whole of humanity. The fund precisely fills this gap: its aim is to promote at least 30 conservation areas over the long term by providing USD 1 million to secure their basic funding. This will allow the conservation areas to do their job properly and truly protect nature.

The special aspect of the fund is that its support does not just come from state actors like Germany, France and Norway, but also private companies and foundations. The Gordon and Betty Moore Foundation, the Rob & Melanie Walton Foundation, the Arcadia Foundation and The Wyss Foundation are already on board. Further private players have already signaled their interest.

NGOs such as the Campaign for Nature, Frankfurt Zoological Society, Wildlife Conservation Society (WCS), Conservation International (CI) and African Parks or the International Union for Conservation of Nature (IUCN) are also working with the fund. The LLF is an innovative international financial instrument that aims to sustainably finance conservation areas and the surrounding regions for the long term. Its strength lies in its diverse range of partnerships as it is based on cooperation between public and private donors, politicians and scientists, park management and local communities. This approach is underpinned by the idea that no single country, trust or company can overcome this huge challenge alone.

By 2030, the fund is aiming to accumulate trust capital of USD 1 billion and promote at least 30 areas in developing countries. These will then cover well over 200 to 250,000 square kilometres of land that is particularly rich in different species and that, taken as a whole, is at least as big as Great Britain.

Preserving biodiversity

The Legacy Landscapes Fund follows a simple but compelling idea: to secure the most biodiverse areas in developing countries in perpetuity with international funds.



Giving nature space to persist and recover. Photo: FZS / David Rosengren

Conservation has long been a traditional part of German development cooperation. KfW has almost 30 years of experience with projects in this field and understands how to intelligently combine conservation and sustainable economic growth. It is a global leader when it comes to developing and implementing innovative financing solutions for areas including conservation.

On behalf of the German Federal Government, KfW currently contributes to the financing of nearly 847 conservation areas and Other Effective Area-based Conservation Measures (OECM) in 59 countries around the world, covering a total area of around 1.94 million km². This is roughly equivalent to the area of Mexico (or about 5.5 times the area of Germany). Its promotional activities focus on Latin America and Africa. This includes 44 areas that have been declared as UNESCO World Heritage Sites. This means that nearly every fifth of all World Heritage Sites are supported by KfW on behalf of the Federal Government. KfW also supports 40 Ramsar sites with the aim of preserving wetlands.

Over half of the protected areas are primarily forests. In addition to its goal of expanding the area under protection, KfW is also involved in ensuring that these regions are managed effectively and fairly. For instance, it invests in the administration structures and buildings in protected areas, as well as contributing to equipment, staff training, checkpoints, markings and vehicles, plus measures to promote sustainable use of resources by local communities.

Conservation zones that are efficiently managed with the involvement of local communities also help to reduce illegal wildlife trading worldwide. Elephants in Eastern and Central Africa and rhinos in Southern Africa are under particular threat. This is why KfW promotes the introduction of internationally recognised management standards (like the IUCN Green List) and improved monitoring systems (such as the Advanced Management Effectiveness Tracking Tool (METT)) in conservation areas.

When financing conservation areas that are hit hard by poaching, KfW therefore concentrates primarily on the following aspects: better training and working conditions for rangers, comprehensive application of innovative technology for monitoring animal numbers, and involving local people in managing the forests, wild animals and fishing grounds and sharing the profits.

Another focal point of promotional programmes is improving income and living conditions for the communities that neighbour conservation areas, for example through tourism, forest management, fishing or handicrafts. Local people should actually benefit from conservation and the sustainable use of natural resources. This makes them more accepting of conservation areas and more likely to protect their boundary zones and biological corridors.

World leader

KfW is a world leader in innovative financing solutions for conservation. It has 30 years of experience in this area.

Madagascar: protecting ecosystems, combating poverty

Madagascar is a biodiversity hotspot: its variety ranges from lemurs and geckos to tropical rainforests and mountain cloud forests. Nearly three quarters of animal and plant species are only found there, making them endemic. However, a range of exploitation interests threaten this natural paradise: since the turn of the millennium, the country's forest has been shrinking at an average rate of 1% per year – primarily due to clearance for agriculture, to produce charcoal and also through illegal logging of valuable woods. It is now difficult to find pristine landscapes and primary forests outside of protected areas, meaning that these play a particularly important role in preserving biodiversity in this island nation.

Madagascar has 147 conservation areas covering a total of area of 9.6 million hectares. Of these, 43 protected areas covering 2.6 million hectares are managed by the organization Madagascar National Parks (MNP) which, however, faces numerous challenges: the conservation areas, some of which are small, are spread throughout the country. The park authority lacks the staff and the funding to protect nature effectively. To enable efficient management, MNP therefore needs international funds as well: on behalf of the BMZ, KfW is providing MNP with EUR 24 million by 2026, making it the organisation's main bilateral donor.

Of the funds, EUR 4 million are earmarked for local communities. Madagascar is particularly rich in species but is among the world's poorest countries. Therefore, it is important to preserve biodiversity here, both as a global public good and as the basis for the population's livelihood. MNP also takes the local population's concerns into account in a highly targeted manner.

The example of the Ankarafantsika National Park in the northeast of the country illustrates what this means in practice. It has the highest level of protected status, meaning that hunting and logging are prohibited. Nonetheless, its existence is beneficial to local people because it acts as an important reservoir, providing water for the neighbouring rice fields. KfW and MNP have also undertaken – and not just at Ankarafantsika – to comply with World Bank standards setting out the procedure to be followed if protective measures do impose certain restrictions. Local people can also have their say in park management, they carry out the majority of patrols and are responsible for other work in the conservation area. Communities profit directly.

On top of this come supplementary measures like the construction of schools, health units and a better water supply, which are financed using a share of the admission fees. MNP operates similarly in the other parks. This is all due to a belief that conservation can only be effective in the long term if it does not disadvantage local people. Finding a good balance in this area is KfW Development Bank's stated aim. However, the COVID-pandemic and the absence of tourists prevented progress. Revenues of MNP, which before covered about 35% of running costs, have meanwhile been reduced to almost zero. This increased the pressure of the population suffering from rising poverty.

A biodiversity hotspot

Madagascar is particularly rich in species. Nearly three quarters of plant and animal species are only found there, making them endemic. KfW helps to preserve this "paradise".

For poorer countries or countries with limited income from tourism resulting from conservation areas, the task of keeping things running and covering costs for things like fuel, spare parts, renovations and PR work, can be a huge challenge. So, it is all the more important to make sure partner countries receive support in setting up permanent financing mechanisms for their conservation systems.

For this reason, KfW has spent the past few years helping to set up a number of environmental funds, known as Conservation Trust Funds (CTFs), usually in the form of non-profit charitable trusts. These trust funds normally receive public and private funds and — using recurring revenues and interest income — permanently contribute to the financing of conservation areas. KfW currently promotes 18 CTFs with a total volume of nearly EUR 877 million. These help with the long-term safeguarding of 217 conservation areas, covering an area of over 800.000 km² (see Annex 1).

Caucasus: protection for the legends of nature

With the Caspian Sea on one side and the Black Sea on the other, the Caucasus is a biological crossroads. Plant and animal species from Europe, Central Asia, North Africa and the Middle East come together. No fewer than 6,400 species of vascular plants alone, such as mosses and ferns, grow here. There are also many species that can only be found in the Caucasus, such as the Caucasian black grouse and the Caucasian leopard. The region's natural diversity is so great that the World Wide Fund for Nature (WWF) and Conservation International (CI) have declared the region to be one of the world's 36 most important "biodiversity hotspots".

Ecosystems are at great risk in the Caucasus, too. Dozens of the region's species are on the red list for being at the brink of extinction due to deforestation or the construction of large roads and bridges. In order to counteract this trend, a few years ago the three Caucasian countries of Armenia, Azerbaijan and Georgia declared roughly 11% of their territory as a conservation area. However, the governments lacked the funds to sustainably manage those reserves and to use agricultural and animal husbandry practices that are in tune with nature in the surrounding area.

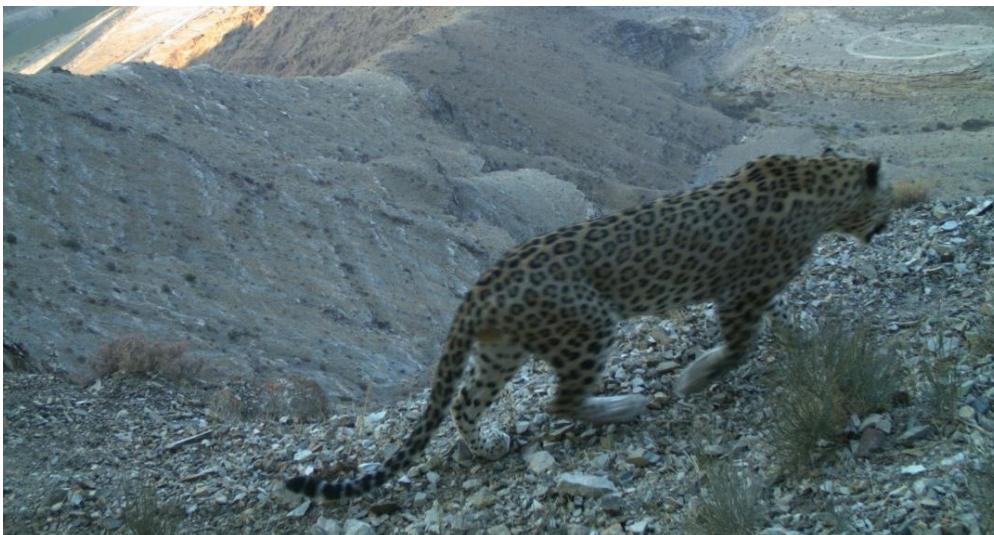
That is why the Caucasus Nature Fund (CNF) was set up in 2008 as a conservation foundation that was intended to permanently close the financial gap and help to preserve biodiversity. It is now recognised as a stable and constant financing partner and supports protected areas in Armenia and Georgia. It is steadily expanding its programme and is now contributing financially to 17 conservation areas, covering more than 661,000 hectares of land. CNF not only finances operating, salary and procurement costs, for example for rangers and park employees, fire engines and jeeps, but also with the implementation of management plans in accordance with international standards.

The German Government has played an active role in the establishment and development of the CNF and it has contributed EUR 95.7 million to date through KfW. The fund also receives substantial support from the WWF, from the Wyss foundation as well as other – also private – donors. Since 2018, KfW has also been financing eco-corridors on behalf of the BMZ. These connect multiple conservation areas with one another. This turns individual patches of unspoiled nature into a species-rich mosaic of protected habitats, piece by piece. To enable the process, agreements are concluded with communities and participatory plans are developed for biodiversity-friendly land use. The conservation agreements include compensation for initial loss of income and assist with the transition to sustainable and more productive land use. The project thus makes an important contribution to rural development, especially for remote, poor communities.

And in this way, the eco-corridors preserve biodiversity on two fronts: they increase species diversity just by ensuring that people interact more carefully with nature. Through the connections that they build between the conservation areas, they also enlarge the habitats and migration routes for wild animals – many of which are threatened with extinction. And above all, they create a more harmonious relationship between humans and nature because they allow enough room for both to live and go about their business. The combination of conservation through the CNF, eco-corridors and the local population has proven particularly effective.

A nature fund

A fund for sustainable conservation financing in the Caucasus was set up back in 2008. It blazed a trail for numerous other funds that.



The Caucasian leopard is alive, not least thanks to a proactive conservation policy. Photo: WWF Caucasus/wildlife camera

3.2 Forest conservation and management

Forests fulfil a number of important ecological functions and provide essential ecosystem services. As the “lungs of the planet”, they supply oxygen, store carbon, regulate the climate and water cycles, protect against erosion (and thus stop siltation at hydropower stations), store drinking water, produce valuable natural resources, food and medicinal products, cushion the effects of storms, and enable endangered species to survive. Especially in rural parts of many poorer countries, forests are also an important economic factor that offers long-term development prospects.

People have been transforming areas of forest for millennia, mainly so they can be used for agriculture. According to estimates, over two billion hectares of land around the world have already been deforested or lost their original function to a great extent. Between 2015 and 2020, deforestation was estimated to be occurring at a rate of 10 million hectares per year. Restoration, including of forests, therefore plays an important role in the three Rio Conventions and international environmental processes in general, and the proclamation of a UN Decade for Ecosystem Restoration further underlines this. In total, 115 governments have committed to restoring about 1 billion hectares of land.⁸

Home to flora and fauna

Forests are the habitat of more than 75% of all land-dwelling animal and plant species.

Indonesia: using forests sustainably

Indonesia has rich jungles that are increasingly being replaced with palm oil plantations. The Indonesian-German Forest Programmes were developed to combat this. These help to conserve natural habitats while simultaneously guaranteeing an income for local people.

Forest Programme II was launched in 2008 and invested around EUR 20 million in Kalimantan by 2022. Forest conservation measures and the resulting climate impacts create incentives for public and private investment within the REDD+ mechanism (Reducing Emissions from Deforestation and Forest Degradation). Forest Programme II is being implemented in Jambi, Sumatra, with EUR 39 million. Here, water catchment areas are being restored, the management of forest and land use improved, biodiversity preserved and community-based activities promoted. Forest Programme III (EUR 13 million) is being implemented in the Lore Lindu National Park in Central Sulawesi and its buffer zone. Besides the protection of key species and the conservation of forest areas, this programme includes support for communities adjacent to the park allowing them to use the land sustainably. Participatory patrols prevent illegal logging and get the local population involved.

Forest Programme IV, with EUR 23.5 million, promotes the conservation of natural resources and erosion control in the Mamasa water catchment area, also in Sulawesi. Inclusive community forests and cooperation with key actors will help to improve forest management. This also includes cooperation with the state energy supplier PLN (Perusahaan Listrik Negara (PLN)), which runs a hydro power station in the project area and will conclude promotion agreements for erosion control with neighbouring communities. Forest Programme V supports community forests in the provinces of West Kalimantan, West Java and Flores. EUR 25 million is being provided for the programme between 2020 and 2026. A EUR 10 million expansion of the programme was undertaken to support the Indonesian government and the local population in sustainable forest management. Securing land use titles for locals and better forest management will help to conserve natural forest cover while simultaneously increasing revenue for the local population. People can sell products like wood, bamboo, rattan and honey and benefit from the proceeds from sustainable agricultural commodities.

Forest Programme VI is about protecting the mangrove forests in North Sumatra, East Kalimantan and West Papua. The focus is on sustainable management methods that restore mangroves and manage shrimp farms sustainably. This is all done in consultation with the local population. The project also includes the development of a World Mangrove Center (WMC) which is, among other things, intended to test and conduct research into beneficial practices. Indonesia's efforts in collaboration with its international partners, including KfW, are now resulting in considerable successes: in 2018, the deforestation rate was around 40% lower than the average for 2002-2016.

Forest conservation in Indonesia

Various forest programmes in Indonesia are showing signs of success: the rate of deforestation has roughly halved.

⁸ <https://www.pbl.nl/en/publications/goals-and-commitments-for-the-restoration-decade>



Rich forests, a plethora of species. Madagascar's fabulous nature is also at risk. Photo: Alice Elfert.

As the originator of the concept of sustainability over 300 years ago (the term originally came from the German forestry industry), Germany has developed extensive expertise in this field and thus provides its partner countries with a high standard of support in forest conservation. In particular, it has strong knowledge in the field of near-natural forest cultivation that preserves biodiversity and ecosystem functions — knowledge that is important for financial cooperation. Near-natural forest cultivation has since become something of a German export, which KfW has been promoting across the globe for over 25 years. German universities are internationally regarded as an elite training ground for this form of forestry. Germany is also home to the Forest Stewardship Council (FSC), a respected international institution that certifies wood produced in sustainably managed forests.

Working on behalf of the German Federal Government, KfW finances restoration and the replanting of trees. As the economies of developing countries have grown – as was previously the case in Germany – there have been enormous amounts of logging, with the associated consequences for water supply, air quality and agriculture. Restored and varied forest landscapes help to provide ecosystem services to the population. The bank also promotes the sustainable management of existing forests, especially in Asia and Latin America. However, the sustainable use of forests still has to win over local populations, who often depend on the forest as a resource. For instance, wood is used to generate energy, while large areas of forests are cleared to plant soybeans or rear cattle. Depending on the region in question, KfW programmes for forest management are often a combination of the following elements:

- **Investment in control and management infrastructure for state authorities:** in order to improve local legal and investment security, for instance through decentralised administration and checkpoints, vehicles, control technology, and in order to meet social and ecological criteria — including training
- **Investment in productive infrastructure:** in order to improve local infrastructure, for example, with investments in rural roads and in areas of afforestation and forest management
- **Promotional funds and programmes for local and indigenous forest owners:** in order to create incentives and change individuals' behaviour, for example, by promoting individual investments for reforestation.

In addition to reducing CO₂ emissions by avoiding deforestation (Reducing Emissions from Deforestation and Degradation (REDD+)) and promoting something known as deforestation-free supply chains, forest and landscape restoration (FLR) is one of the three pillars that form the

Forest, forest, forest

An estimated 1.6 billion people, or 25% of the world's population, rely on forests for their survival, their livelihood, their employment and their income.

basis of the Federal Ministry for Economic Cooperation and Development's international forestry policy. KfW finances relevant projects in all three areas.

Restoring forest landscapes

An important target of the international community is to restore deforested and degraded forest landscapes and to reforest areas having suffered from deforestation, not least for climate protection and rural development reasons. One concept in this area is FLR. It incorporates both ecological and social improvements. This means that it combines a forest's ecological functions with its productive use, from which the local population can benefit in turn, for example through increased income. The FLR approach also incorporates agroforestry systems⁹, which have both ecological and economic advantages: they increase biodiversity and protect fields from the effects of climate change. Furthermore, they help to keep soil fertile and reduce erosion, which in turn makes plants more resistant to pests and reduces the use of pesticides.

FLR contributes to the achievement of the SDGs set out in the 2030 Agenda by, among other things, securing the supply of food and power, fighting poverty, preserving biological diversity, and protecting the climate. In the 2014 "New York Declaration on Forests", the international community decided to restore 350 million hectares of degraded forest landscape by 2030. This new target corresponds to an area the size of India. The German Federal Government also signed the declaration. Participants in New York also agreed to end global deforestation entirely by 2030. During the last climate conference (COP 26), more than 140 countries with over 90% of the world's forest area (including Germany) reaffirmed these goals in the Glasgow Leaders Declaration on Forests and Land Use. In addition, Germany and eleven other governments pledged to provide USD 12 billion in climate finance for forests from 2021 to 2025 via the Global Forest Finance Pledge. FLR can play an important role in this process.

Together with Norway and the United Kingdom, Germany signed up to the GNU Initiative, which aims to extend the commitment under the New York Declaration using joint programmes and improved coordination. In 2015, the New Partnership for Africa's Development (NEPAD¹⁰), the BMZ, the World Bank and the World Resources Institute (WRI) set up the African Forest Landscape Restoration Initiative (AFR100) with the aim of restoring 100 million hectares of forest by 2030. Since then, 31 African countries have agreed to contribute around 128 million hectares to this initiative – so even more than was originally planned. KfW has already allocated commitments for Ethiopia, Cameroon and Madagascar for AFR100.

Deforestation-free supply chains

A key driver of global deforestation is the conversion of forests into agricultural land to enable the production of palm oil and soya, for instance. In order to reduce deforestation rates, the BMZ is promoting deforestation-free supply chains which use sustainable agricultural crop cultivation methods and land use systems. Deforestation-free supply chains bring forest conservation and sustainable agriculture into harmony with each other.

Through the eco.business Fund, KfW supports deforestation-free, resource-conserving and biodiversity-friendly production methods in Latin America and in Sub-Saharan Africa. The innovative fund structure uses public funds to break down barriers in the market and mobilises additional private capital for small and mid-sized enterprises that produce to voluntary sustainability standards. This enables the fund to not only establish alternative production methods and corresponding sustainability standards, but it also simultaneously acts as an instrument for redesigning the financial system and the economy to make them more ecologically friendly.

Restore

One concept that describes the restoration and afforestation of forests where logging has taken place or which have been degraded is known as FLR: Forest Landscape Restoration. It combines environmental protection with productive use of the forest.

⁹ Agroforestry combines elements of agriculture with forestry.

¹⁰ Now the African Union Development Agency (AUDA).



Sustainable coffee production in Nicaragua. Photo: Thomas Buhl.

Latin America and Africa: eco.business Fund

In Africa in particular, despite significant progress, hunger and malnutrition remain a serious problem. The situation is exacerbated by a population growth rate that is among the highest in the world. As a result, Africa needs not only more agriculture, but also more intensive agriculture. However, farming cannot be expanded at the expense of the environment and the climate if it is to become a sustainable long-term model. This means that Africa must reconcile its economic growth and its increasing demand for food with environmental principles. This applies above all to the preservation of forests and biodiversity – the continent is particularly rich in both, but both are also exposed to considerable pressure.

This is why the economy must transition to a “green economy”, which requires incentives and capital. The eco.business Fund works towards this goal and promotes economic activity that contributes to the sustainable use of raw materials and the preservation of biodiversity. In the process, it also helps to mitigate climate change and adapt to its negative impacts. The fund was established in 2014 by KfW Development Bank on behalf of the BMZ together with Conservation International and Finance in Motion. It concentrates on four areas: agriculture and forestry, tourism, fishery and aquaculture.

The eco.business Fund exclusively promotes companies that replace conventional production processes with sustainable methods. To this end, it brings together private and public investors who assume different levels of risk. The involvement of public institutions creates a risk buffer for other investors – this makes the fund more appealing and attracts more private capital. Especially in Latin America, the fund grants “green credit lines” to local banks, which in turn extend loans to local companies. With the expansion to Africa, the fund concept has also been extended to include investments directly in companies and cooperatives. Financed companies must have sustainability certificates from the Rainforest Alliance or FSC, for example, or be striving to acquire them or implement a sustainable measure that meets the green fund principles.

The work of the eco.business Fund began in Latin America and the Caribbean where it has disbursed loans of more than EUR 2.5 billion to ultimate borrowers since its formation. Because of its success, there has also been an offshoot in sub-Saharan Africa since 2019. There, the focus is on production practices that preserve forests. For example, the fund has supported the cultivation of sustainable cocoa in Ecuador and the Ivory Coast, environmentally friendly coffee in El Salvador, and sustainably certified tea in Kenya. In total, it has helped to protect more than 260,000 hectares of land from deforestation and saved 4.6 cubic meters of water, roughly equivalent to the amount of water in 2,000 swimming pools. In addition, agroforestry activities have saved more than 10.2 million tons of CO₂, equivalent to the emissions of more than 1.1 million people in Germany per capita per year, and preserved or created 600,000 jobs in the eco-industry.

Providing compensation when deforestation is prevented

In order to reduce greenhouse gas emissions owing to deforestation, the countries that are party to the UN Framework Convention on Climate Change (UNFCCC) have agreed the REDD+ approach. The basic concept consists of rewarding governments and local people for preventing and reducing deforestation. The conditions and the methodological rules and regulations for results-based payments were defined in what is known as the “Warsaw Framework” in 2013. In

Green economy

Restructuring the economy to improve sustainability is an important mission for our age, and one that KfW is committed to.

order to prevent displacement of deforestation within a country, evidence must be provided of forest conservation and CO₂ savings at national or regional level.

KfW is implementing the REDD Early Movers Programme (REM) on behalf of the BMZ. It aims to reward pioneers in the protection of forests and the climate for their services to forest conservation. So far, five components of the programme have been implemented in three countries: in the Brazilian states of Acre (one phase completed, one ongoing) and Mato Grosso, in Colombia and in Ecuador. Besides the BMZ, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Consumer Protection (BMUV), Norway and the United Kingdom co-finance the individual components. By 2021, EUR 195 million were disbursed for deforestation that had been prevented. Remuneration was provided for emission reductions totalling nearly 46 million tonnes of CO₂ equivalent (tCO_{2e}) that had been discontinued; this means that they cannot be compensated for again. This corresponds to the annual CO₂ emissions of around 25 million cars in Germany. In addition, the REM partner countries have discontinued a further 42 million tCO_{2e} as their own contribution and as risk provisions, meaning that the programme has already achieved an overall contribution of 88 million tCO_{2e} towards climate protection.

A reward

With REDD+, local people are rewarded for preventing and reducing deforestation. The funds are only disbursed when evidence of CO₂ savings is provided.

Ecuador: REDD for Early Movers

Ecuador is home to 5 - 10% of the world's species. The majority of these are in the Amazon Rainforest, the Andes and on the coast. Together, these habitats cover 58% of the country. Various groups of people live there, including indigenous people, Afro-Ecuadorians, the Montubio (Mestizo) and local communities.

The country is implementing a series of effective forest conservation mechanisms, such as the Socio Bosque programme. With its assistance, in an eleven-year period Ecuador has placed 1.6 billion hectares of forest under the protection of local groups and indigenous peoples. The country concluded a REDD+ action plan covering this, in order to drive forward climate and environmental protection and strengthen community development. The comparatively low (and, in recent years, decreasing) levels of deforestation form the basis for the partnership with Ecuador under the REM programme. For this partnership, the BMZ has provided EUR 11 million in funding and Norway has provided around EUR 30 million.

This compensates for the reduction in deforestation between 2015 and 2019. The partner on the Ecuadorian side is its Ministry of Environment (MAE). Through benefit sharing, 70% of the funds go towards local implementation. This includes forest conservation by rural and indigenous communities, restoration and afforestation activity, direct promotion of sustainable products (non-wood forest products), commercialisation of deforestation-free products and the financing of initiatives by indigenous communities. 30% of the funds contribute to improving forest governance.

3.3 Coastal and marine conservation

The planet's oceans cover a good 70% of its surface and play a central role in sustaining life on Earth. They fulfil important climate-regulating functions, produce half of the world's oxygen and make a key contribution to food security thanks to their high level of biodiversity. Fish is a crucial source of nutrition for nearly three billion people. More than 500 million people around the world are directly or indirectly dependent on fishing. For these people, coastal regions are both a place to live and a place to work. The majority of fishing takes place in developing countries, where increasing numbers of people are gathering in coastal regions. Today half of the world's population already lives in these areas.

Overfishing of the world's oceans has now become a serious problem: around 90% of fish populations are deemed to be fully exploited or overfished. Aquacultures are playing an increasingly important role, supplying around half of the fish consumed by humans. For decades, aquacultures have been the fastest growing sector in global food production, rising by around 8% each year.

Marine ecosystem

The oceans produce half of the world's oxygen, trap CO₂, provide food for much of humanity and boast high levels of biodiversity.



Intact underwater world. Photo: coral reef image bank / photographer: Jayne Jenkins

Global: a “blue fund” for marine conservation

Off the coast of Ecuador, Colombia, Panama and Costa Rica, the Pacific is particularly rich in different species. It is also home to the legendary Galapagos Islands with their unique flora and fauna. Many naturalists, including Charles Darwin, were always fascinated by the islands' beauty, even temporarily earning them the name “Islas Encantadas” (“enchanted islands”). The Galapagos Islands are now a UNESCO World Heritage Site, and parts of the eastern Pacific Ocean surrounding them are also protected.

However, the area's biodiversity makes it economically attractive as well and it is therefore at risk of being heavily exploited and overfished. In order to bring ecology and the economy into harmony with one another, several projects funded by the Blue Action Fund support marine conservation around Galapagos (Ecuador) and Cocos Island (Costa Rica). The area lies hundreds of kilometers off the Pacific coast and is home to more than 1,600 species of marine life. For example, the NGO Conservation International (CI) supports local communities to practice sustainable fishing methods. This includes better equipment, storage and fish processing, as well as management and control plans to protect stocks. EUR 3.7 million is being invested in the Cocos Island project. In addition, the protected area there has been expanded by 150,000 km², so that more than 30% of Costa Rica's waters are now protected.

The programme in this sensitive marine area is one of 16 ongoing projects that the Blue Action Fund is currently promoting in Latin America, Africa and Asia. It aims to preserve marine biodiversity for future generations and it invests in coastal and marine conservation around the world in order to achieve this. The BMZ, in collaboration with KfW, established the Fund in 2016 in the legal form of a non-profit charitable trust. It finances projects of non-governmental organisations (NGOs), which can expand their work through access to public funding.

Support is available for projects that establish new conservation areas, expand or better manage existing ones and improve the living conditions of local communities through sustainable management of marine resources. Interested NGOs can submit project proposals. When selecting projects, the Fund observes any national and regional protection strategies and makes sure projects are consistent with the UN Convention on Biological Diversity, the 2030 Agenda and the Federal Ministry for Economic Cooperation and Development's 10-point action plan for marine conservation. The International Union for Conservation of Nature and Natural Resources (IUCN) works with the BAF to select projects.

The trust, which currently has Sweden, the French agency AFD and KfW represented on its Board of Trustees alongside the BMZ, now has an endowment fund of over EUR 160 million provided by the BMZ, France, Norway and the Swedish government. The Green Climate Fund has committed EUR 30 million, and further financiers are expected to come on board in due course. To date, the BAF has selected 17 projects to be financed to the tune of EUR 40 million. And with each additional financier, the commitment to the oceans and coasts can be further increased – around the Galapagos Islands and elsewhere.

Nevertheless, this growth also goes hand-in-hand with growing demand for fish meal and oil from the catching sector for feed. Moreover, non-sustainable production methods used in aquacultures can be just as dangerous as destructive catching methods. This makes private certification initiatives such as the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC) all the more important; their market share in western industrial countries is growing. These measures enable consumers to promote sustainable aquacultures and fishing methods by making conscious purchasing decisions.

Climate change will continue to increase the temperature of the oceans and cause sea levels to rise, with the result that coral reefs around the world die off, making thousands of kilometres of coastline more vulnerable to storm tides. It also means the loss of refuges for many species of fish and could push millions of people even deeper into poverty. Marine and coastal protection is correspondingly important and its significance in KfW's portfolio – in accordance with the Federal Ministry for Economic Cooperation and Development's 10-point action plan¹¹ for marine protection and sustainable fishing – has risen steeply in recent years.

Similarly to land area, scientists also recommend protecting 30% of the world's oceans by 2030. The German Federal Government shares this goal, which KfW is helping to implement. But to

Blue Action Fund

The fund now supports 16 marine conservation projects worldwide, with another ten due to come on board in the next two years.

Coral at risk

Around a quarter of all marine species live in coral reefs; however, in 2030, 90% of these were put at risk through human activities and climate change.

¹¹ BMZ (2016): Meeresschutz und nachhaltige Fischerei. 10-point action plan.

date, only around 8% of the ocean has been protected – and some of this is only a reality on paper. Thanks to modern satellite monitoring and transponders, there are effective methods nowadays for checking whether protection restrictions are being violated. However, many partner countries lack monitoring capabilities and patrol vessels, even though sufficient revenue could be generated to pay for these from commercial fishing licences. The political will and participatory fisheries management are crucial for this to happen.

Increasing pollution is also harming the world's oceans: There are already millions of tons of plastic today. And an estimated 8 million tons are added every year. This has formed five huge plastic waste whirlpools - the largest of which is four times the size of Germany. Climate change is also putting a strain on the world's oceans by warming them and causing sea levels to rise. This is causing corals to die worldwide.

In 2021, KfW had an ongoing marine portfolio around the world related to biodiversity (i.e. excluding waste projects) of around EUR 812.5 million on behalf of the German government. This includes projects and programmes for marine conservation and sustainable fisheries management - in some cases also with monitoring, for example on the coast of West Africa, off Mozambique or in the Pacific. Of these, a total of EUR 293.5 million was used to support the protection of 92 protected areas covering some 14 million hectares (139,000 km²) of marine area. With the additional project commitments of 2021, the marine protected area will increase to almost 24 million hectares.

In order to make marine conservation even more effective, KfW has also established various international funds, each unique in nature. Through the Blue Action Fund, KfW promotes efforts to establish new protected areas, expand or more effectively manage existing ones, and improve and permanently safeguard the living conditions of local communities through sustainable practices. In launching the Clean Oceans Initiative in 2018, KfW, the European Investment Bank EIB and the French development agency AFD have set up an initiative for combating marine waste in developing countries and emerging economies. Two years later, the Spanish development bank ICO and the Italian "Cassa Depositi e Prestiti" (CDP) joined in, followed by the "European Bank for Reconstruction and Development" (EBRD) in 2022. Together, the institutions want to reduce plastic waste in the oceans with a targeted project volume of EUR 4 billion by 2025. Improved waste and wastewater management as well as stormwater management are being promoted. The latter is important because large quantities of plastic waste are washed into rivers and seas during heavy rainfall.

In the eco.business Fund, the share of projects relating to fisheries and aquaculture is around 21%. And these are just three examples of KfW's growing portfolio in marine conservation.



Sustainable fishery is a decisive step towards preserving the oceans as intact ecosystems.
Photo: KfW Group/Eric Madeja, Connect Ocean

4. Outlook and trends

International nature conservation is largely determined by the UN Convention on Biological Diversity (CBD). The CBD's new 10-year strategy, which the group of countries is currently in the process of negotiating, contains 20 goals. They build on the previous goals but increase the level of ambition. According to IPBES, this will require a reversal of social and, above all, economic trends.

Despite some success, it will only be possible to preserve nature and its outputs in the long term if – in addition to protective and conservation measures – policies are put in place to more strictly regulate use of land and resources and divert production and consumption towards sustainable channels. Integrating biodiversity concerns into other aspects of human development (“mainstreaming”) is also likely to become more significant, as the main causes of species loss are found in other sectors. This is reflected in the following trends which will also play a larger role for KfW going forward:

Trend 1: “30-by-30”

According to IPBES's global situation report, up to one million species of animals and plants are facing extinction, and for many this will occur in the next few decades. This means that today, the rate at which species are dying out is up to one hundred times higher than the average rate of the last ten million years. The ability of ecosystems around the world to provide outputs that are essential for survival also decreased. This is despite the global commitment to conservation, without which the environment would be in an even worse situation.

According to figures in Global Biodiversity Outlook 5, investments in conservation have reduced the risk of extinction for mammals and birds by a median of 29% per country from 1996 to 2008. Effectively and equitably managed protected areas therefore remain a key means of conserving natural wealth. The draft of the new CBD strategy therefore envisages, among other things, protecting at least 30% of terrestrial, marine and freshwater ecosystems by 2030.

Protected areas work

Investments in conservation have reduced the extinction risk of mammals and birds by a median of 29% per country.

However, there is a risk that protected areas exist only on paper, or that quantity (designation of new areas) is at the expense of quality. This means that the management of protected areas must be improved, governance must be more transparent and inclusive, and questions of justice, especially with regard to conflicts of use and objectives, must be addressed.

The protection of 30% of the earth's surface cannot mean the designation of further rather classic protected areas with large unused areas. There are large areas that are used by the local, often indigenous population and yet preserve biodiversity. Other areas fulfil other purposes and safeguard biodiversity “quasi incidentally”. They are called “other effective area-based conservation measures” (OECM); these offer the chance to conserve nature together with the population - if appropriate land and use rights are recognised.

KfW Development Bank's contribution

KfW Development Bank's aim is to fully preserve natural habitats. It invests around EUR 1.92 billion in marine, terrestrial and transboundary protected areas. By doing so, KfW also supports OECM areas, such as deforestation-free zones, that are being used in a biodiversity-friendly manner by the local population. The total area supported is 1.94 million km². KfW is committed to ensuring that conservation areas are managed more effectively, that local communities are more involved and that they have alternative income generation methods.

Furthermore, KfW is supporting partner countries in developing long-term financing mechanisms, such as through Conservation Trust Funds (CTF) or eco and green funds. These funds support private companies which have a positive effect on nature conservation, typically in the sustainable agriculture, fishing, agroforestry, ecotourism and green infrastructure sectors. On the other hand, CTFs using a regular stream of income and interest help to secure the financing of protected areas for the long term. In this way, they also raise awareness of biodiversity in the

country and mobilise additional public and private funds. They hold the private sector to account and act as a platform to coordinate donors and enable coordination between donors.

KfW Development Bank works closely with nature conservation organisations to make use of their specific strengths. The World Wide Fund for Nature (WWF), the Frankfurt Zoological Society (ZGF) and the International Union for Conservation of Nature (IUCN) deserve special mention. KfW has concluded special agreements with all of them.

Cooperation

KfW Development Bank maintains particularly close partnerships with WWF, the Frankfurt Zoological Society and the International Union for Conservation of Nature (IUCN).



National park in Cameroon. Photo: KfW Photo archive/Fred Hoogervorst

Trend 2: Biodiversity and climate

Biodiversity and global warming are closely linked, as climate change is one of the main drivers of extinction. The risk of species dying out increases significantly with higher global temperatures: Limiting global warming to less than 2 degrees is therefore also crucial for nature. Conversely, intact ecosystems are essential for climate protection and adaptation, as they store more carbon and can respond better to the impacts of climate change than degraded systems. Despite this link, climate protection and adaptation sometimes involve practices that are detrimental to biological diversity, for example when afforestation is carried out with monocultures that offer little habitat for flora and fauna. This is even more true in times of multiple crises (see Trend 3).

Nature-based solutions (NbS) in particular have great potential: according to the World Economic Forum, they could reduce one third of the emissions needed to reach the 1.5 to 2 degree target, and would also be significantly cheaper than other forms of CO₂ reduction. Instead of relying on technical solutions, NbS use ecosystems to address climate change, improve human well-being and safeguard biodiversity. Coral reefs and mangrove forests, for example, are natural alternatives to coastal protection using walls. Again, the costs are usually not that high, and there are other benefits: Mangrove forests are important spawning grounds for fish and can help secure food and income for people living on the coast. What is more, they store up to three to five times as much CO₂ as forests on land. However, NbS are usually land-intensive and not infinitely scalable. And their success depends on the acceptance of the local population; participation and transparency are therefore essential.

The biggest challenge is often that they are accompanied by limited access to resources. It is therefore advisable to promote sustainable resource use so that nature-based approaches are more likely to be accepted and supported by user groups. However, the biggest obstacle to NbS is climate change itself: For example, if upper ocean layers are already too warm and too acidic, it becomes increasingly difficult to save coral reefs by protecting or restoring offshore mangroves

A major issue

Species conservation and climate change go hand in hand. Climate change is one of the main drivers of species loss. Conversely, species extinction increases the risk of higher global temperatures

and seagrass beds so that they can in turn buffer or avert tidal waves and coastal erosion. Therefore, the earlier NbS are used, the more effective they are.

KfW Development Bank's contribution

KfW Development Bank is one of the major financiers in climate and biodiversity protection. The entire group is currently focusing consistently on sustainability. A group-wide project called tranSForm has established new guidelines for specific sectors. This ensures that KfW financing in CO₂-intensive sectors is in line with the goals of the Paris Climate Agreement. At the same time, KfW is working on solutions that will enable it to record the effects of its financing and make them transparent. Ecological and social risks can then also be systematically assessed and managed. In this way, KfW is advancing itself, but can also shape opinion and act as a creative force externally.

In its global activities, KfW Development Bank will support NbS approaches even more strongly in the future. These include the protection, sustainable use and restoration of ecosystems. KfW projects with biodiversity as a main or secondary objective already contribute predominantly to climate change mitigation and/or adaptation (290 of 318 ongoing projects).

Trend 3: Biodiversity conservation despite crises

The coronavirus pandemic and the Ukraine war are currently shifting political priorities. This applies above all to agriculture: Russia and Ukraine produce around a quarter of the world's wheat exports. Because of an impending food shortage, they are now considering using previously uncultivated land for agriculture. Areas that should actually remain unused as fallow land for the benefit of biodiversity, the protection of insects and natural cycles. Tighter restrictions on the use of pesticides are also to be suspended. This may produce food in the short term, but in the long term it endangers ecosystem services and ultimately reduces world food security.

This is why a change in strategy is needed: the global distribution of food must improve and, at the same time, dietary habits must be changed. This could achieve a lot. In Germany, for example, about 60% of the annual grain harvest goes into the production of animal feed, while in other regions grain is scarce or too expensive. Yet ecosystems - through pollination, water availability and as a gene pool - make an important contribution to securing food for future generations.

But human health suffers not only from a lack of food: the penetration of previously protected ecosystems increases contact between humans and (wild) animals and paves the way for the spread of pathogens. Covid-19, monkeypox, HIV or Ebola are just a few examples of zoonotic diseases. The high use of chemicals in agriculture is also detrimental to human health and has a negative impact on biodiversity. Pharmaceuticals can also release active substances that damage species and ecosystems. The improper use of antibiotics in agriculture increases the risk of pathogenic bacteria developing resistance. All these examples show: human, animal and environmental health ("One Health") are interrelated.

Decisive action for more biodiversity protection repeatedly falls victim to short- and medium-term political crises. In the process, this immediately fuels the next crisis - and, due to the manifold interactions between climate and biodiversity, also fuels global warming. Against this background, it is crucial that the world community agrees on a global biodiversity treaty as soon as possible. Only through ambitious goals and their consistent implementation can the biodiversity crisis be stopped in the next two decades.

KfW Development Bank's contribution

KfW's extensive and ongoing commitment to protecting biodiversity and improving rural development is particularly important in times of crisis such as those we are currently experiencing. Protecting and restoring ecosystems and designating protected areas and protected area corridors safeguard natural habitats. For this reason, it remains an important concern of KfW to continue financing protected areas: tourism is still restricted, income from tourism is declining or failing to materialise, health systems and economic recovery often take priority. Many protected areas are therefore threatened with the risk of being underfinanced, which jeopardises their continued existence.

Nature as a pharmacy

Penicillins and nine of the thirteen main classes of antibiotics are derived from natural microorganisms. Also, about three quarters of the new antiviral and antiparasitic drugs approved in the USA between 1981 and 2010 are derived from natural products.

Commitment in crises

Continuous promotion of biodiversity is particularly important in times of crisis, such as now, when a pandemic meets food insecurity due to the Ukraine conflict .

At the same time, KfW Development Bank promotes the sustainable use of natural resources, for example through ecological agriculture (e.g. via the eco.business Fund) or sustainable fishing (such as in Madagascar). Cooperation across sectors will become even more important in the future, for example closer cooperation in agro-ecological approaches. These help to minimise dependence on food exports from a few countries and at the same time make a positive contribution to environmental and climate protection.



Zebras in Mozambique - also a biodiversity hotspot. KfW Photo archive / phothothek.net

Trend 4: Mobilising the private sector

At present, roughly between USD 120 billion and USD 145 billion per year is spent worldwide on the conservation of biodiversity. However, at least USD 720 billion would be needed annually. There is a large funding gap here, which is likely to widen. Therefore, more funding must be provided not only for the direct protection of biodiversity, e.g. through protected areas, but also for the conversion of production methods to a more biodiversity-friendly use of natural resources. Therefore, cooperation with the private sector is becoming increasingly important. Only with funds from private sources can the necessary investments in biodiversity conservation be increased and financed.

A positive impulse for this comes from the private sector, where "corporate (social) responsibility" (CSR) is becoming more and more strategically anchored in order to systematically manage non-financial risks and new entrepreneurial opportunities in the long term. The consideration of social and, above all, ecological aspects no longer only serves as protection against damage to reputation (so-called "green washing"), but also secures natural resources for companies in the long term. After all, it is now clear that half of the world's gross domestic product is heavily dependent on nature; losses of the same therefore endanger business models all over the world in the medium to long term. In addition, such a commitment opens up the possibility for companies to position themselves as a valuable actor in the social fabric and to serve the growing transparency demands of stakeholders through broad communication channels. Another positive aspect can be derived from the fact that more and more foundations and philanthropists are becoming involved in environmental and biodiversity issues. There has also been a noticeable increase in civil society involvement in this area recently. For one thing is clear: the efforts made so far must be multiplied and synergies must be used as effectively as possible.

KfW Development Bank's contribution

In addition to the pure budget funds of the federal government (via grants or loans), KfW can also use market funds for so-called promotional loans and interest rate reductions, which contribute significantly to impacts on biodiversity. Especially in emerging economies, "traditional" budget financing is increasingly being supplemented by funds raised on the financial market.

Large funding gap

Government sources alone will not be able to meet the funding needs in the area of biodiversity. Therefore, cooperation with the private sector is becoming increasingly important.

Thus, market funds for the promotion of biodiversity projects can gain in importance, even if nature conservation will essentially remain dependent on public subsidies, as it is usually not directly profitable.

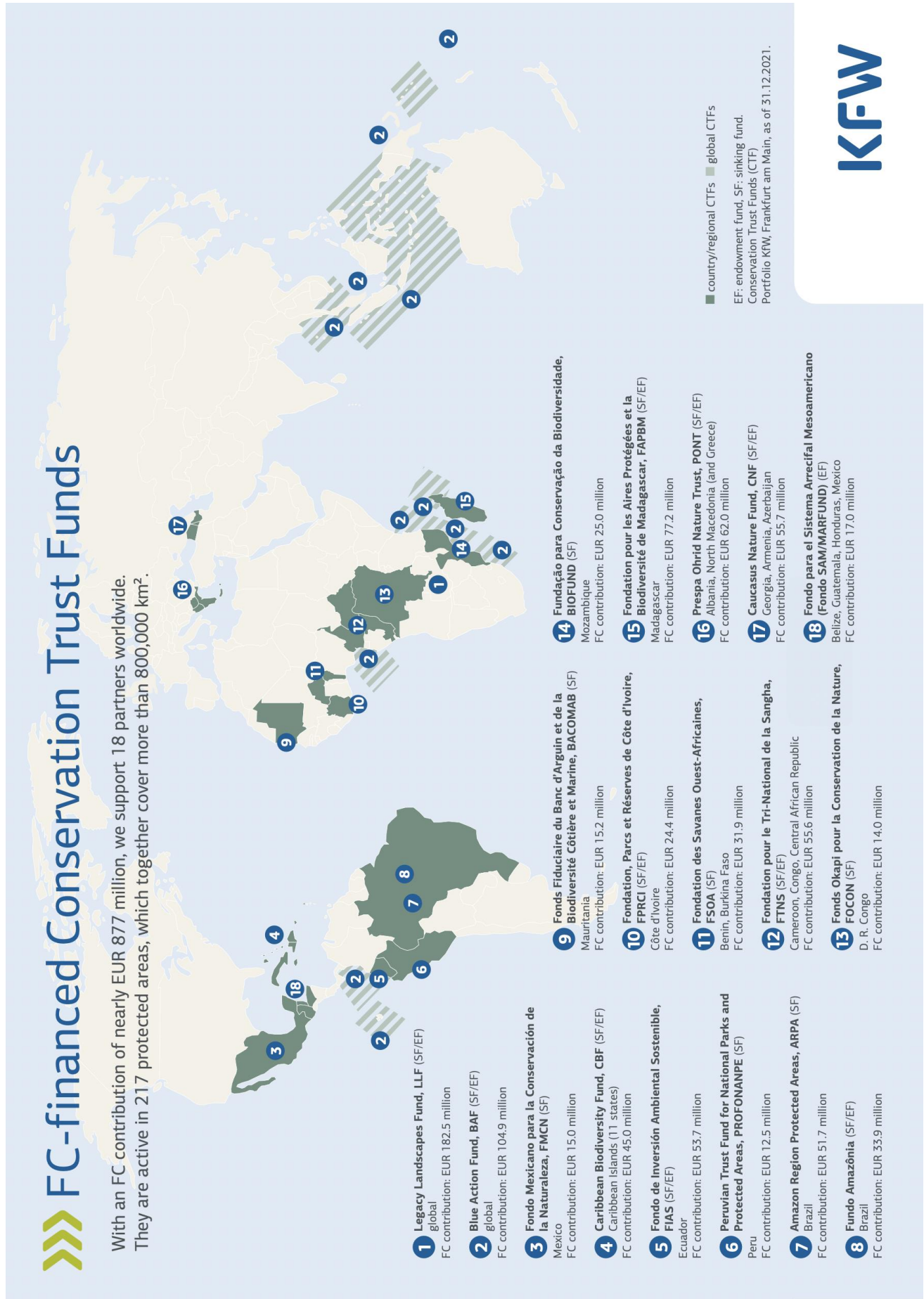
Another instrument to tap and leverage private funds are funds and foundations active in nature conservation. One example is the eco.business Fund, which successfully brings together private and public investors to support sustainable production methods in developing countries. Here, public funds create a risk buffer for private funds and thus attract private capital at all or more strongly. Another example is the Legacy Landscapes Fund (LLF), which also brings together governmental and non-governmental actors and donors. Together, they achieve much more for nature conservation than each of them alone. The LLF, which KfW 2020 founded on behalf of the German government, is intended to secure the long-term financing of up to 30 nature conservation areas and their surroundings worldwide, each with one million US dollars annually. Many of these nature conservation parks lack the financial resources, equipment and know-how to effectively fulfil their mission. Through LLF funding, a good part of the biodiversity that is vital for the survival of all humankind can be secured.

Conclusion

In the public perception, biodiversity still does not have the importance it should have. Yet it is just as important as climate change, and is inextricably linked to it, and yet the public is only gradually beginning to recognise its value. In fact, it is a double crisis, in which global warming and the loss of biodiversity reinforce and amplify each other. Accordingly, both crises can only be solved together, one not without the other. This is also true in times of war in Ukraine and impending grain shortages. Playing off short-term goals against long-term ones will not produce viable solutions in the long run. Instead, it is now a matter of cleverly balancing the pressures on land arising from climate protection, agriculture and the preservation of biodiversity. In the case of climate and agriculture, the problem has been recognised, even if it has not yet been solved. In the case of biodiversity, this is far from being the case. That is why, in addition to continuous state funding, more money is needed from private sources, which must be systematically tapped. Sawing off the proverbial branch we are sitting on is definitely not an option. That is why the commitment to biodiversity is perhaps more important today than ever before.

More attention

Together with climate change, the loss of biodiversity is one of the greatest ecological risks of our time. But unlike climate change, there is still a lack of public awareness of biodiversity loss.



¹² KfW Conservation Trust Fund (CTF) portfolio, Frankfurt am Main, December 2021

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