Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

Funding the Future

Review of Activities of the International Climate Initiative
from 2008 to 2014

Imprint

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Foreword by the Federal Environment Minister

Dear Readers,

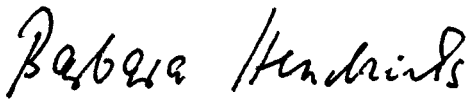
2015 is a crucial year for the future of our planet. In December we intend to sign a new climate protection agreement in Paris. The countries of this world must make haste, so that climate change can be kept within tolerable limits. We will only be able to conquer this century's major challenges – reducing poverty, hunger, disease and lack of opportunity – if we limit climate change to a maximum of two degrees Celsius. In the 21st century, mitigating and adapting to climate change will be key to social justice and peace in the world.

Alongside climate change, another enormous challenge is the dramatic loss of animal and plant species, as well as ecosystems, worldwide. The UN Convention on Biological Diversity provides clear guidance. Now the international community needs to implement specific measures. As one of the leading industrialised countries, Germany must be among the first to do so. This is why the German Government launched the International Climate Initiative (IKI) in 2008. Through this programme, the Federal Environment Ministry funds practical cooperation with developing countries and emerging economies to protect the climate and conserve biological diversity. We also support countries in developing and establishing their own climate change policies. Today there are almost 450 IKI projects, whose guiding principle is to 'act and negotiate'. These projects aim to help mitigate greenhouse gases, foster adaptation to climate change, and conserve forests and biodiversity.

Dr. Barbara Hendricks
Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety

In this report we would like to present some of the projects we have launched since 2008. The IKI draws on a wide array of strategies. I am particularly pleased that we have been able to support several important countries in crucial ways. These included restoring old ponds in the Himalayas, protecting the last cloud forests in Ethiopia, supporting a solar power plant in Morocco, delivering advisory services for climate change policy in Mexico and promoting energy efficiency measures in Kyrgyzstan.

So please read on, and see for yourself the many facets of our International Climate Initiative.



Dr. Barbara Hendricks
Federal Minister for the Environment, Nature Conservation, Building and Nuclear Safety

The International Climate Initiative of the Federal Environment Ministry

The need to achieve a substantial reduction in greenhouse gas emissions presents the world with great challenges. Drastic reduction measures are necessary, especially in the industrialised countries, which are responsible for the present scale of climate change, but also – increasingly – in emerging economies and developing countries, whose greenhouse gas emissions have also shown rapid growth in recent times. This calls for wide-ranging changes in production and consumption to bring about a transformation to a low-carbon economy. This reduction in greenhouse gases needs to be achieved quickly to limit global warming to a maximum of two degrees Celsius and thereby reduce the risks of climate change in the long term.

Effective measures for adapting to the impacts of climate change, especially in the least developed countries, are of equally central importance. Owing to their geographical position, these countries are far more frequently affected by drought, floods and storms. At the same time, their lack of financial resources may mean they are hardly in a position to implement the necessary adaptation measures on their own. Just as important as the struggle against climate change is the task of conserving biodiversity. Nature forms the basis of human existence, supplying food, drinking water, medicines, fertile soils and fuels. Healthy forests not only provide protection from avalanches and floods, but also store large quantities of carbon dioxide (CO_2). In this way they support both mitigation of climate change and adaptation to its consequences. The increasingly rapid loss of biodiversity is destroying livelihoods and development opportunities for the present generation as well as for future generations.

All countries must play their part in minimising global warming and its consequences and halting the loss of biodiversity. The industrialised nations in particular have a special responsibility, not only to devise and implement measures in their own countries, but also to support the efforts of the developing countries and emerging economies. Thus the German Government launched the International Climate Initiative (IKI) in 2008 as an element of Germany's climate funding and its financial pledges under the Convention on Biological Diversity.

The IKI is a programme that cooperates with partner countries in the practical implementation of climate change mitigation and biodiversity conservation measures. Since its establishment, it has launched 446 climate and biodiversity projects. The total project volume since 2008 amounts to €1.6 billion of commitments respectively €1.3 billion accord-

Comittments: €1.6 billion
Doha accounting approach: €1.3 billion
Both presentations cover a total of 446 projects in the reporting period 2008-2014. The *"Committed fundings approach"* refers to legally binding commitments from budgetary sources for all projects in a respective year. This is the total volume of all budgetary funds for an approved/ commissioned project in the commitment year; relevant are the disbursements/ commitments in the commitment year and the commitment appropriations/ pre-commitments. Non-used funds in the commitment year are included as long as these funds had not been previously included in the pre-commitment. In order to present the importance of the Energy and Climate Fund (EKF) more precisely over a longer period, the so-called *"Doha accounting approach"* was introduced: in the reporting period 2008-2014 bilateral IKI projects are counted as commitments while bilateral EKF projects and multilateral contributions are counted as disbursements.

ing to Doha accounting. In the early years of the programme, its financial resources came from the proceeds of auctioning allowances under the emissions trading scheme. To ensure financial continuity, further funds were made available through the Special Energy and Climate Fund. Both funding mechanisms are now part of the Federal Environment Ministry's regular budget.

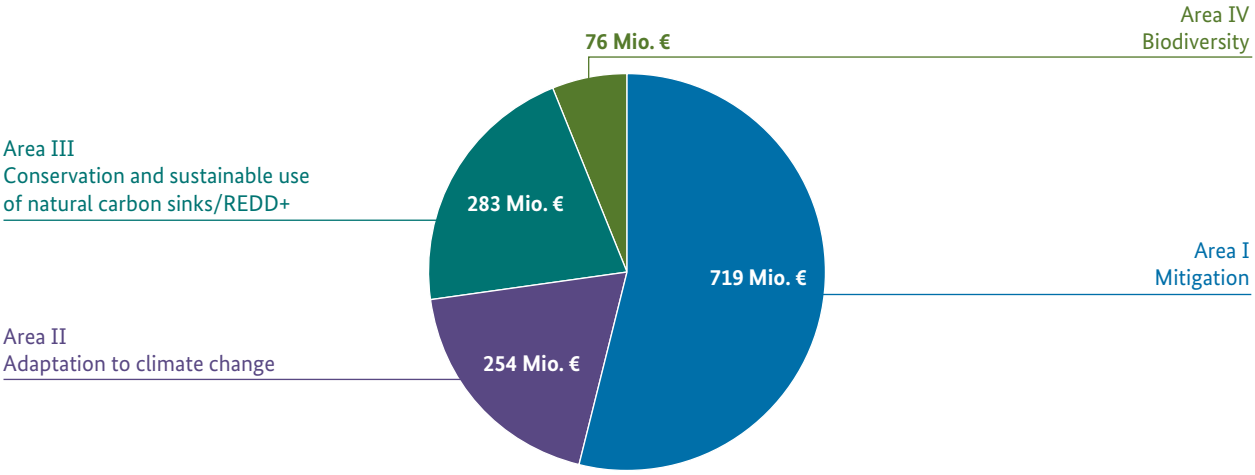
The resources for international climate and biodiversity activities have grown steadily since the programme was launched. Whereas some €170 million was available for on-going projects in 2008, by 2014 the figure had risen to €318 million. In recent years, the German Government has steadily increased its commitments to climate change mitigation measures.

IKI focuses on four funding areas: climate change mitigation through greenhouse gas emission reductions, adaptation to the consequences of climate change, conservation of natural carbon sinks, and protection of biodiversity. One important focus is supporting the partner countries in meeting their obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD). The projects look for innovative solutions to the challenges and develop new political, economic and regulatory approaches, as well as technological options and cooperation models. The solutions are meant to have impacts that go beyond the individual project and to be transferable.

A community in South-Leyte campaigns for conserving forests and agronomic forestry.

Project application is open to applicants worldwide through an annual call for proposals.[1] This two-stage procedure is designed to ensure that funding is awarded to ambitious projects with the most suitable implementing organisations. As a result, the programme is characterised by a

IKI project volume by funding area (2008-2014) according to Doha accounting method



Source: BMUB

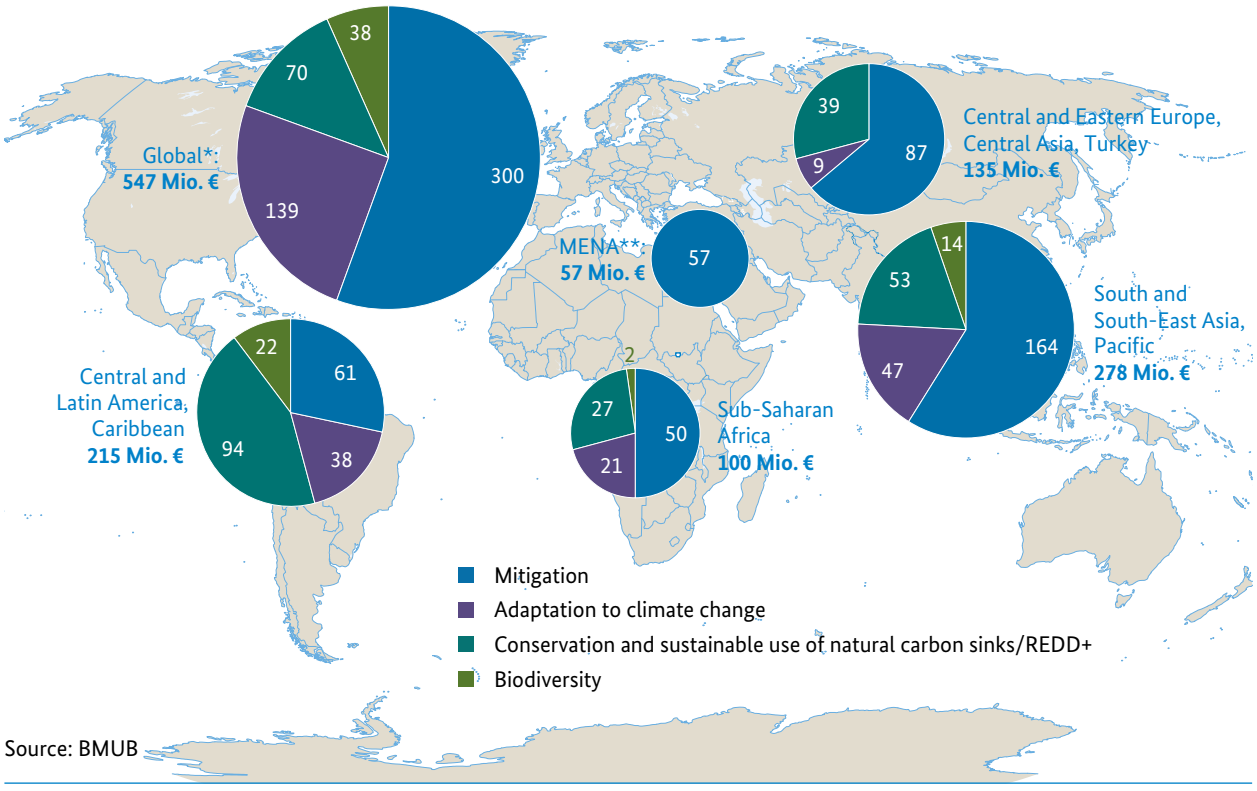
The distribution by commitment is as follows: Area I Mitigation €841 millions; Area II Adaptation to climate change €282 millions; Area III: Conservation and sustainable use of natural carbon sinks/REDD+ €292 millions; Area IV Biodiversity€224 millions

wide variety of national and international implementing organisations, ranging from the German Government's two major implementing organisations (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH – GIZ and Kreditanstalt für Wiederaufbau – KfW) through multilateral organisations to non-governmental organisations, research institutes and foundations, and also banks and private enterprises.

In its funding decisions, the programme applies criteria such as innovation, potential for multiplier effects, and ambitiousness. Other criteria include sustainability of the approach, support for negotiations under the conventions, and implementation of the resolutions adopted by the parties. The IKI deals with this great variety of issues in the partner countries and funding areas by using a range of methodological approaches adapted to the individual situation. For example, projects focus on or combine funding mechanisms, technological cooperation, policy advice or capacity building, and also the preparation of studies and concepts or support for the implementation of specific climate change mitigation and biodiversity conservation measures.

Political coordination with the partner governments and within the German Government ensures that the projects are geared to the needs of the individual countries and are consistent with other international cooperation initiatives. Project planning and monitoring of IKI projects is based on the results logic of the Organisation for Economic Co-operation and Development (OECD). Standard indicators for all projects permit the aggregation of outcomes for reporting results across the entire funding programme. An independent evaluation of the individual projects and of the programme as a whole yields important findings for the IKI's on-going development. Moreover, it is a declared objective and standard practice in project implementation to promote information sharing across projects and encourage individual implementers to learn from each other and thereby support the dissemination of good practices.

IKI project volume by region (2008-2014, in EUR millions) according to Doha accounting method



Source: BMUB

* Global projects are activ across several countries and in more than one region; for example in India and Peru, covering the Asian as well as the Central and Latin America regions. Regional projects include more than one country in the same region, for example Peru and Brazil. Bilateral projects focus on one country only.

** MENA = Middle East and North Africa

THE IKI'S SIX STANDARD INDICATORS

As from 2015, all new projects are to use not only the project-specific indicators, but also the overarching standard indicators that summarise the central impacts of the IKI funding programme. Each project reports on all standard indicators to which it has made a significant contribution.

The IKI standard indicators are:

Reduction indicator: Reduction in greenhouse gas emissions and increase in carbon storage (as tonnes of carbon dioxide equivalent) in the project/programme area.

Adaptation indicator: Number of people the project directly assists with adaptation to climate change impacts or ecosystem conservation.

Ecosystem indicator: Ecosystem area (in hectares) that is improved or protected by the project's activities.

Policy indicator: Number of new or improved policy frameworks for managing climate change and/or conserving biodiversity.

Institution indicator: Number of new or improved institutionalised structures or processes for managing climate change and/or conserving biodiversity.

Methods indicator: Number of new or improved methodological tools for managing climate change and conserving biodiversity.

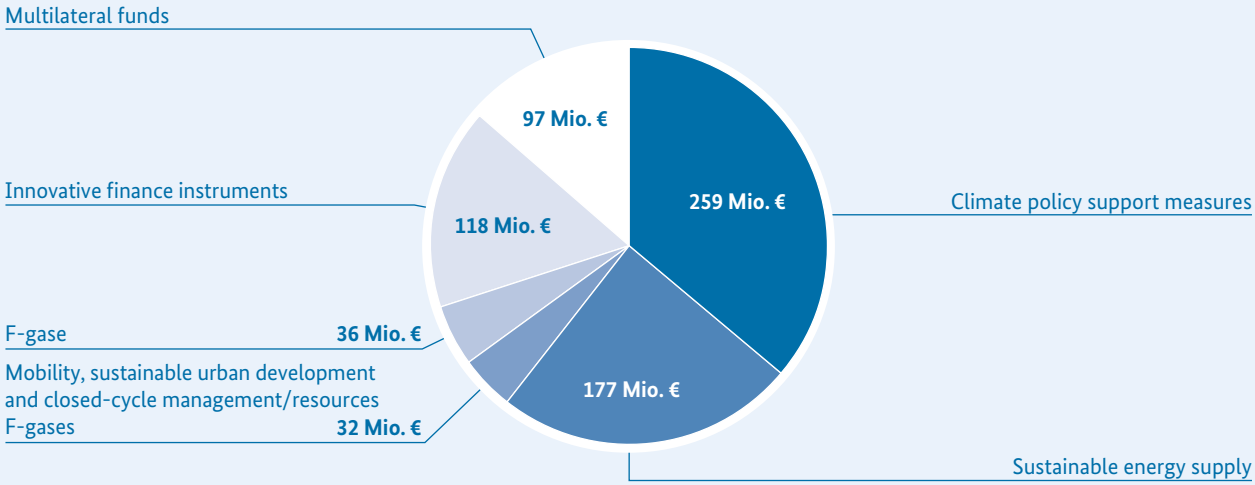
Mitigating Greenhouse Gas Emissions

In the field of mitigation, the IKI supports partner countries in developing and implementing innovative instruments for reducing their greenhouse gas emissions.[2] These include measures for transitioning to a sustainable, low-emission economic and energy supply structure and developing low-carbon development strategies (LCDS), nationally appropriate mitigation actions (NAMAs) and systems for measurement, reporting and verification (MRV) of greenhouse gas emissions and reduction measures. Numerous projects also pursue the aim of mobilising additional public and private capital for climate change mitigation. The conceptual focus is on policy advice, capacity building and appropriate training measures, and also technological lighthouse projects and technological cooperation schemes. Since 2008, a total of 244 mitigation projects with funding totalling around €719 million have been approved in 88 partner countries.

LCDS and NAMAs are two of the key instruments resulting from the UNFCCC negotiations. To reduce greenhouse gas emissions and combat the impacts of climate change, it is necessary to coordinate regulation, planning and budgeting. The relevant IKI projects in this sector advise partner countries on developing low-emission strategies with the aim of creating the policy framework for a low-emission way of life and economic activity. These strategies often form the basis for designing NAMAs, that is voluntary climate change mitigation measures in developing countries and emerging economies that are embedded in the national development plans and initiate transformation processes in individual sectors, for example in the energy, refrigeration or transport sector.

Also relevant to negotiations are the Intended Nationally Determined Contributions (INDCs) – in which the parties formulate their climate objectives for submission to the

Area I: Mitigation (2008–2014) according to Doha accounting method



Source: BMUB

Total funding volume according to counting method by commitment: **€841 millions**

UNFCCC Secretariat ahead of the 21st session of the Conference of the Parties (COP 21) in Paris in December 2015. The IKI has been advising more than 25 partner countries on the preparation of their INDCs since early 2014.

IKI projects in the reduction sector also make an important contribution to tapping additional private and public sources of finance for climate change mitigation in the partner countries. Such projects are geared to encouraging engagement by the private sector, for example by reducing financial risks arising from investment in climate technologies in developing countries and emerging economies. Reduction projects also make financial contributions available for public-private development partnerships. They communicate know-how, for example by means of training courses for local financial institutions, and provide flexible credit lines to promote energy efficiency projects by companies in the target countries, for example.

Other key fields of action in the reduction sector include projects promoting sustainable use of energy, energy efficiency, reduction of F-gases (refrigeration, air conditioning, foam production and use, and disposal of fluorinated greenhouse gases), mobility and measures to support a sustainable building and urban development sector. In the energy sector the focus is on promoting renewable energy sources, implementing energy efficiency measures, and reforming energy systems. IKI projects in the transport sector concentrate on reducing the volume of traffic, for example by means of intelligent urban planning, encouraging modal shift, for example by expanding public transport systems, and improving traffic, for example by using fuel-saving technologies. In all sectors, greenhouse gas inventories are made to provide a database that can be used as a basis for developing made-to-measure strategies. Sharing experience between countries and sectors makes it possible to put experience gained in the projects to good use in other emerging economies and developing countries.

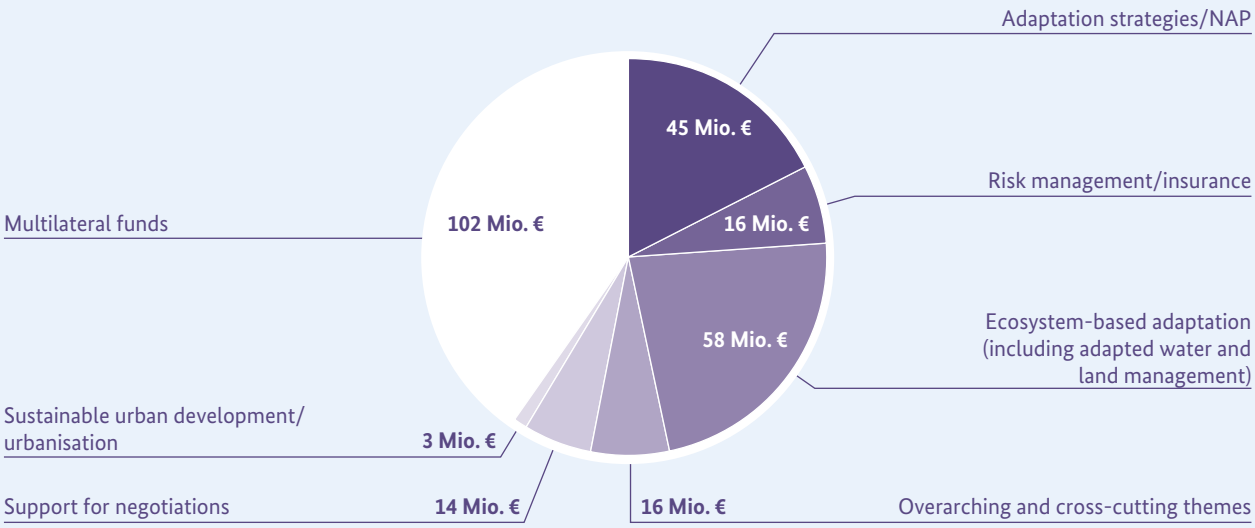
The portfolio of the IKI reduction sector is rounded off by support for the introduction of MRV systems for greenhouse gas emissions and reduction measures. These systems are used to verify reduction outcomes and ensure comparability of instruments and methods.

Adapting to the impacts of climate change

This funding area is concerned with measures that promote the capacity of emerging economies and developing countries to adapt to the impacts of climate change. This includes instruments that increase their resistance to actual or expected impacts of climate change. The IKI projects address all areas of society that are affected by climate change. Since 2010, the IKI has focused on ecosystem-based adaptation (EbA). A total of 75 projects in the adaptation sector have been approved in 66 partner countries since 2008, with a funding volume of €254 million.

The EbA approach promotes the use of intact ecosystem services to improve the communities' ability to adapt to climate change impacts. In one of the IKI's key adaptation projects, the EbA Flagship Programme (see page 44), local communities in mountain regions of Nepal, Peru and Uganda are learning to improve the way they conserve or restore their regulating ecosystem services, such as water supply, firewood or climate regulation. The programme supports the development of possible scenarios for the impacts of climate change and then devises appropriate adaptation measures in conjunction with the local population. These are being implemented on a pilot basis in the three countries.

Area II: Adaptation to climate change (2008–2014) according to Doha accounting method



Source: BMUB

Total funding volume according to counting method by commitment: **€282 millions**

Within the IKI, EbA is an interface between the adaptation and biodiversity conservation sectors, as ecosystem services and their conservation play a major role both under the CBD and in the context of the UNFCCC.

Other important topics in the field of adaptation include instruments for risk management in connection with climate change impacts, and in particular climate risk insurance schemes, which at present are supported by only a small number of donors. The IKI always combines climate insurance projects with preventive measures for adapting to climate change. For example, very low-cost index-based weather insurance was developed in the Caribbean with the aid of an IKI project. Population groups like smallholders – who are especially vulnerable to climate impacts but have hitherto been prevented by financial constraints from obtaining coverage – can now for the first time take out insurance against extreme weather situations. The project has an integrated early warning system to enable policyholders to take action before the onset of extreme weather events. For example, they can provide timely protection for agricultural capital goods. The experience gained from these projects has played an active role in climate negotiations – today insurance solutions are regarded as an important element in climate risk management and as a contribution to reducing loss and damage resulting from climate change.

The superstructure for these focal areas consists of projects which help ensure that the issue of adaptation to climate change is embedded in the countries' policies and strategies. Especially in the least developed countries, the relevant advisory services have frequently been geared to the national adaptation programmes of action (NAPAs). Today the IKI supports developing countries and emerging economies with the (participatory) development and subsequent implementation of national adaptation plans (NAPs).

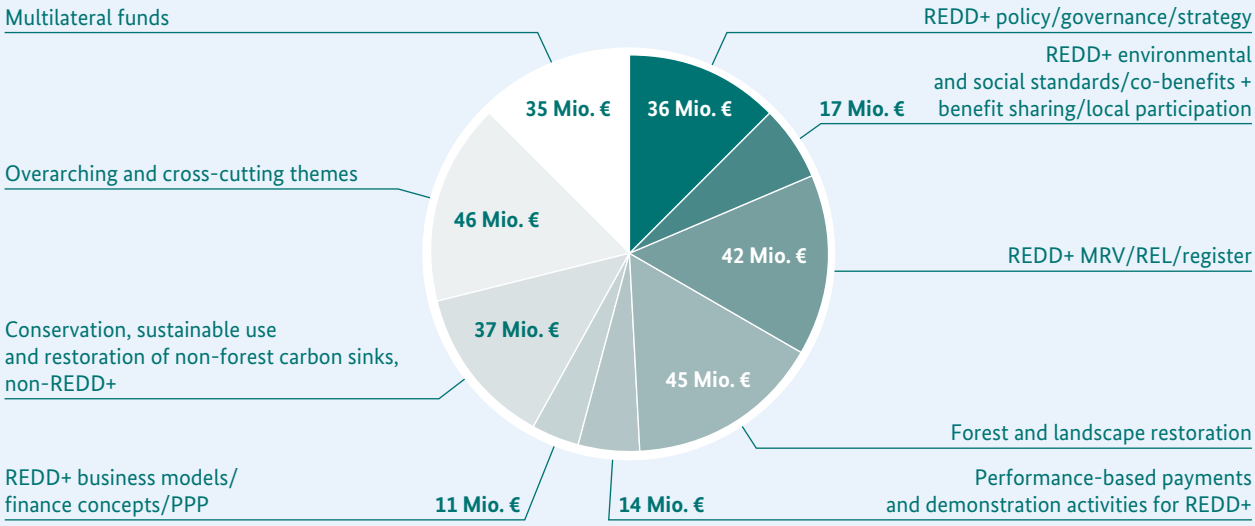
Conserving Natural Carbon Sinks/REDD+

The aim of projects in this funding area is to support partner countries in implementing the international mechanism for reducing emissions from deforestation and degradation in developing countries (REDD+). The REDD approach was initiated at COP13 in Bali in 2007 as a mechanism for mitigating climate change by conserving forests. REDD+ is a revised REDD model that includes not only forest conservation measures, but also CO_2 storage through more sustainable forms of forest management and measures to improve the economic situation of people in the areas affected. Since 2008, the IKI has supported a total of 88 projects in this sector in 68 partner countries, with a total funding volume of €283 million.

The REDD+ mechanism is implemented in three phases with the IKI providing ongoing support. During the first – the readiness – phase the basic conditions for receiving performance-based payments are created, that means payments for emission reductions actually achieved. Here IKI projects provide advice on aspects including the development of national REDD+ strategies and REDD+-specific MRV systems and the development of baseline scenarios.

The majority of the IKI-financed projects are in the second REDD+ phase. Here countries implement the agreed policies and measures and test performance-based payments, monitoring and benefit-sharing systems and

Area III – Conservation and sustainable use of natural carbon sinks/REDD+ (2008-2014) according to Doha accounting method



Source: BMUB

Total funding volume according to counting method by commitment: **€292 millions**

minimum standards in pilot projects. For example, to ensure that the local people and indigenous communities are involved in the implementation of REDD+ activities, IKI-funded projects support countries in establishing safeguard information systems that guarantee minimum standards for the implementation of forest conservation projects and provide the public with access to information about compliance with these ecological and social safeguards.

In the third REDD+ phase, countries receive performance-based payments as a retrospective reward for verified emission reductions. Benefit-sharing systems are used to pass the payments on to all stakeholders. Specific performance-based payments are currently being made by donor countries such as Norway and Germany in connection with IKI pilot projects in Brazil, Guyana and Indonesia. In the Brazilian state of Acre, a fund managed by KfW Development Bank has been set up under the REDD Early Movers programme of the German Federal Ministry for Economic Cooperation and Development (BMZ). The IKI programme of the same name is paying the greater part of €9 million into this fund on the basis of quantified and verified emission reductions.

Another focus of this funding area is the development of business models for making sustainable use of forest resources and reducing drivers of deforestation, for example by means of deforestation-free supply chains.

Conserving Biodiversity

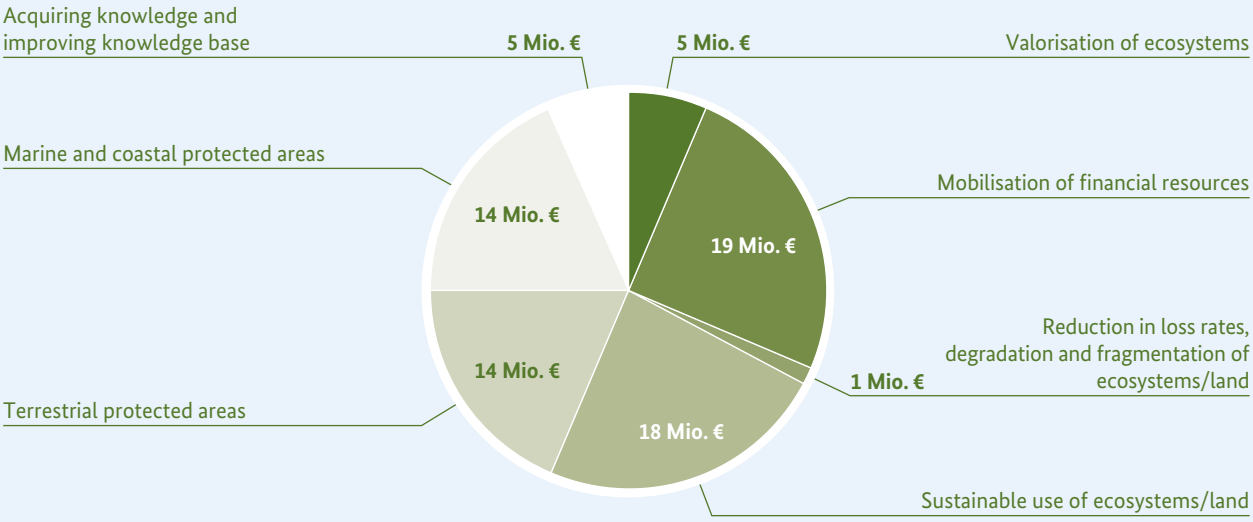
Since 2011, the IKI has been running projects in the field of biodiversity to provide systematic support with implementation of the objectives of the Strategic Plan 2011-2020 (Aichi Targets) of the Convention on Biological Diversity (CBD) in the partner countries. Examples of key cooperation areas include marine and coastal protection and the integration of ecosystem services in public and private decision-making and planning processes. Since 2008, the IKI has supported a total of 39 projects in the field of conserving biological diversity in 51 partner countries, with a total funding volume of €76 million.

2008 was a major milestone in Germany's engagement in worldwide conservation of biodiversity. During the negotiations for the 9th session of the Conference of the Parties to the CBD in Bonn, Federal Chancellor Angela Merkel announced that from 2013 onwards Germany would be providing €500 million every year for the conservation of biodiversity. This promise is kept jointly by BMUB (via the IKI) and BMZ.

In the biodiversity funding area, the IKI finances projects that are based on specific Aichi targets and support the implementation of national biodiversity strategies and action plans, as well as strategies for mobilising resources. The focus themes include awareness raising, valorisation of ecosystems, management of protected areas, sustainable use of natural resources, capacity building and mobilisation of financial resources.

IKI projects have addressed areas where the Conference of the Parties in Hyderabad in 2012 (COP 11) and Pyeongchang in 2014 (COP 12) identified an increased need for action. Among other things, Aichi Target 11 states that 10% of marine and coastal regions are to be placed under protection by 2020. According to Global Biodiversity Outlook 2014, the parties will fall short of this target unless they considerably step up their international efforts. Thus, this is a special focus for the IKI when selecting new projects. Marine and coastal protection is also a relevant issue outside the biological diversity funding area. For example, the IKI supports the rehabilitation

Area IV – Conserving biological diversity (2008-2014) according to Doha accounting method



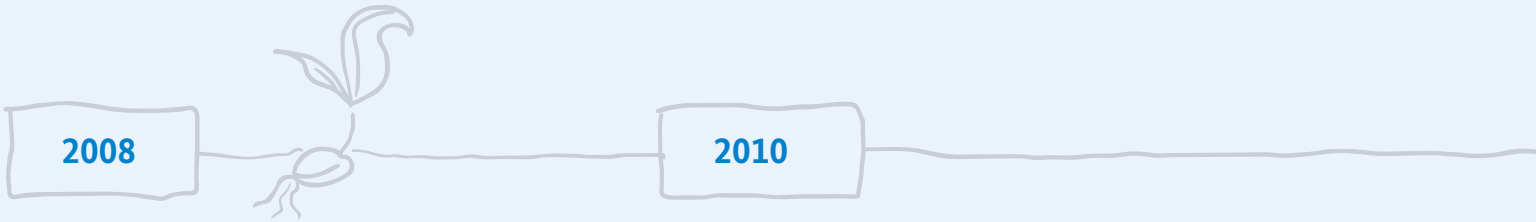
Source: BMUB

Total funding volume according to counting method by commitment: **€224 millions**

of mangrove forests in its ecosystem-based adaptation projects. Moreover, the conservation and maintenance of terrestrial ecosystems is a key area, as they contribute substantially to preserving important carbon sinks. These project examples show how synergies between the funding areas concerned with biodiversity, adaptation and greenhouse gas emission reduction can be used and how their impact can be enhanced above and beyond the individual projects.

Non-sustainable use of natural resources and land take for agriculture, settlement and transport infrastructure are among the main causes of biodiversity loss. One important task of the Strategic Plan (Aichi Targets 1-4) is therefore to raise awareness of biodiversity and ensure mainstreaming of natural resources in all areas of politics and society. Through its projects, the IKI helps to initiate an inter-sectorial dialogue on integration of ecosystem services into planning and decision processes, for example in the context of environmental licences for building and infrastructure projects, land-use planning or national economic accounts. Economic assessment of biodiversity and ecosystem services is a further important basis for mobilising additional financial resources for the conservation and sustainable use of biodiversity. One example is the international TEEB Initiative (The Economics of Ecosystems and Biodiversity), which seeks to ensure that the value of biodiversity becomes economically visible. Germany and the European Union (EU) launched the TEEB Initiative jointly in 2007. Today, through IKI, the Federal Environment Ministry is one of the biggest donors for implementation of TEEB in the partner countries. ValuES, also a global project of the IKI, serves as a central platform for systematising and disseminating methods and implementation experience in the assessment of ecosystem services.

Timeline of the International Climate Initiative



2008

Founding of the IKI

The Federal Environment Ministry's Climate Initiative was launched in June by Sigmar Gabriel, then Federal Environment Minister. It consists of a national and an international funding programme. The initiative uses the proceeds from selling emissions trading allowances to mobilise additional funds and deploying them directly in climate change mitigation projects. The German Bundestag (lower house) approved the Climate Initiative in November 2007.

The International Support Group

IKI's International Support Group met for the first time at the UNFCCC COP 14 in Poznan. Since then, international experts from scientific institutions, civil society and international organisations have met annually in June during the UNFCCC interim negotiations in Bonn to share information on developments within the initiative and on climate and biodiversity policy. The Federal Environment Ministry uses this body to initiate and follow up discussions, and to continue developing the IKI.

2010

Climate-friendly Investment

The Global Climate Partnership Fund (GCPF) was set up by KfW. The GCPF aims to promote private investment in climate-friendly technologies. BMUB/IKI and KfW jointly provided the fund with an initial US$100 million. By the end of 2014, a total of seven investors had pledged US$326 million for the fund, allowing the support of investments in 11 countries during the same period. The design of the GCPF is now regarded as a blueprint for public-private partnerships (PPPs) in international climate financing.

Partnership on Mitigation and MRV

Together with South Africa and South Korea, Germany established the International Partnership on Mitigation and MRV at the first Petersberg Dialogue. Right from the start, the IKI supported the Secretariat of this partnership which promotes transnational knowledge transfer in the field of greenhouse gas reduction by sharing practical experience. The partnership also promotes capacity building in the MRV sector.

2011

Focus on Biodiversity

Conserving biological diversity was added to IKI's portfolio as a separate, fourth funding area alongside mitigating greenhouse gas emissions, conserving natural carbon sinks/REDD+ and adapting to the impacts of climate change. IKI's biodiversity funding is based on the medium- to long-term targets (Aichi Targets) and the priorities of the CBD's Strategic Plan.

Low-emission Development

In November 2011, the IKI-funded Low Emission Capacity Building Programme (LECB) organised the Global Inception Workshop in Berlin. This workshop was the kick-off event for a regular South-South exchange on approaches to greenhouse gas reduction, with high-level government participation.

LECB supports a large number of partner countries in their work on political strategies for climate-friendly development.

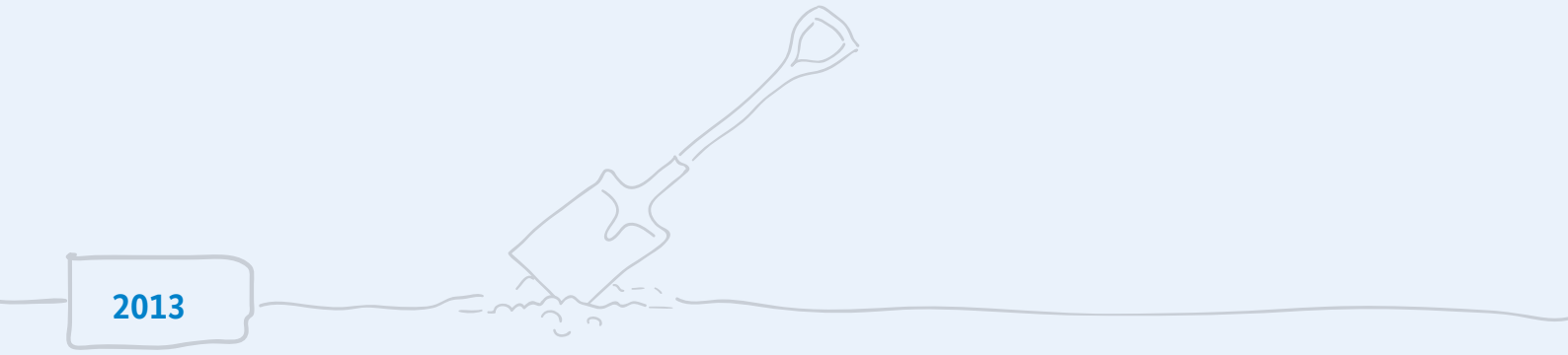
2012

Establishment of the NAMA Facility

The support for the development of NAMAs that IKI had already been providing for several years led to the establishment of the NAMA Facility. At the climate negotiations in Doha in 2012, the Federal Environment Ministry and the United Kingdom of Great Britain and Northern Ireland (UK) Department of Energy and Climate Change (DECC) set up the Facility. It was the first fund worldwide to specifically finance projects to implement nationally appropriate mitigation actions (NAMAs). For the first selection round, a total of around €70 million was made available in 2013. In 2014, the fund's resources increased to €120 million. By the end of 2014, the NAMA Facility had selected nine projects for funding in nine countries.

Adaptation at all levels

The IKI launched the Pilot Programme for an Integrated Adaptation Strategy with the island of Grenada. This cross-sectorial adaptation project operates both at national level and in local pilot communities. It cooperates closely with partners in the government and public services to design an overarching adaptation strategy for Grenada. In parallel, it takes action, for example in the fields of water use or coastal zone management, to prepare local communities for climate change in Grenada, which as an island state is particularly at risk. The project's implementing agencies are United Nations Development Programme (UNDP) and GIZ.



2013

Groundbreaking ceremony for world's largest solar power plant

At Ouarzazate in Morocco, a symbolic groundbreaking ceremony by King Mohammed VI in May marked the start of construction work on the world's largest solar power plant at that time, a solar thermal plant using concentrated solar power (CSP) parabolic-trough technology. The German Government made a funding contribution of €115 million, of which €15 million came from the IKI. The CSP power plant (NOOR 1) is the first step in the implementation of Morocco's ambitious solar plan. The second step is the construction of the world's largest solar power plant complex in this region (NOOR 2-3). Here the Federal Environment Ministry and BMZ are providing a reduced-interest loan for a total of €654 million to support the construction of a CSP solar chimney power plant and another parabolic-trough power plant. Together, the two power plants will have an electrical output of 350 megawatts, which roughly corresponds to the output of a conventional power block.

Preparation for the Green Climate Fund (GCF)

The IKI provided €15 million for the GCF Readiness Programme in order to prepare developing countries to draw resources from the Green Climate Fund (GCF). The GCF was approved at the 17th session of the Conference of the Parties to the UNFCCC (COP 17) in Durban. It is currently the biggest multilateral climate fund for financing mitigation projects in developing countries. In this IKI project, the implementing agencies United Nations Environment Programme (UNEP), UNDP and World Resources Institute (WRI) carry out practical individual measures to prepare the recipient countries for the GCF's financial and project standards. The programme cooperates closely with the GCF Secretariat, which supports the recipient countries with 'readiness activities' and also receives €15 million funding from the IKI.

Forest conservation licences

For the first time, an IKI project in Indonesia is selling licences to environmental organisations or private investors to conserve forest areas instead of using them for commercial logging. The holders of such licences, known as "Ecosystem Restoration Concessions" (ERCs), have an interest in maintaining and restoring the forest ecosystem. A total of 100,000 hectares of rainforest on the Indonesian island of Sumatra are being conserved in this way. A special IKI project is supporting two similar concessions on Sumatra and Sulawesi, projects, which are important models for rainforest conservation in the entire region.

2014

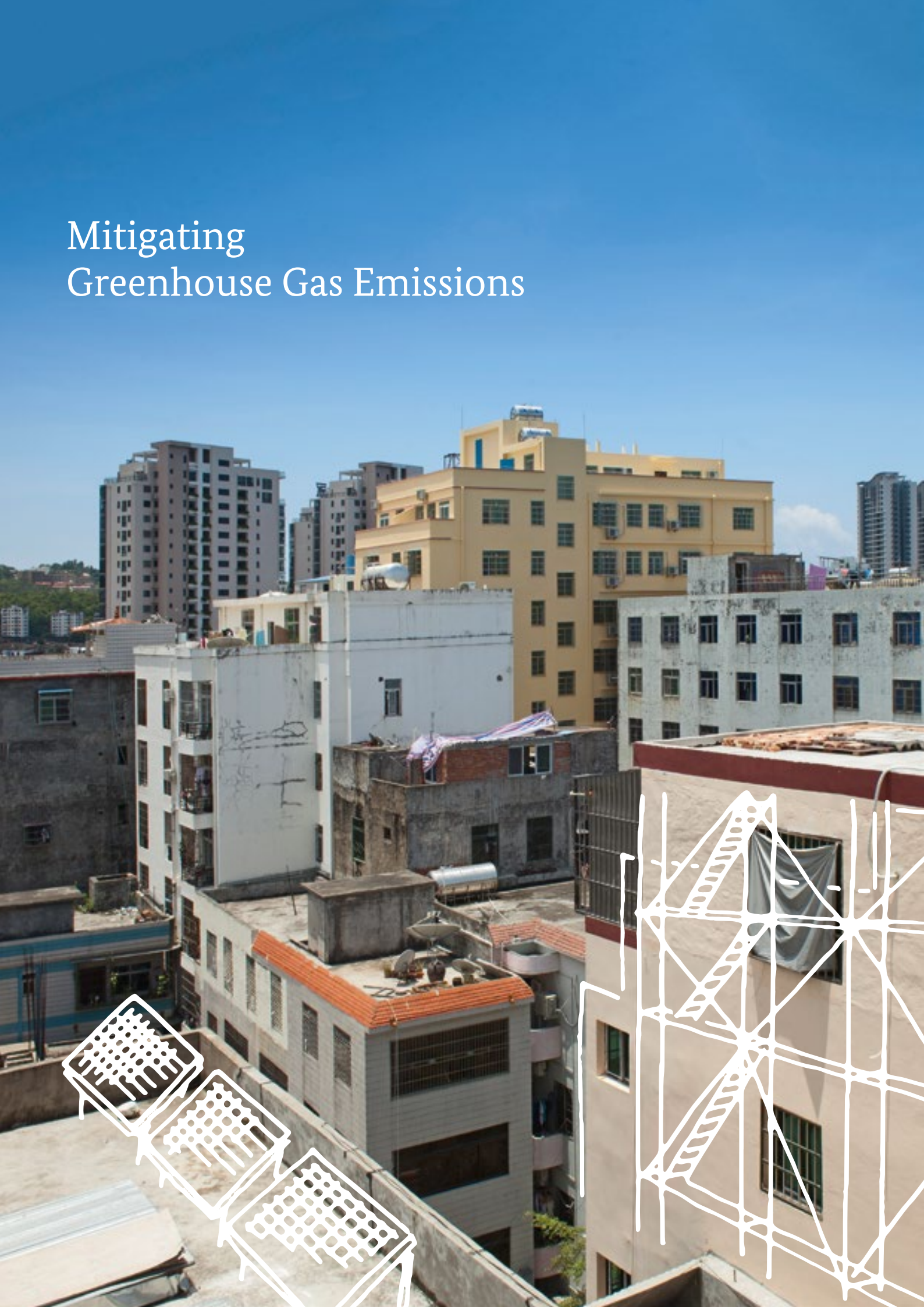
The lead-up to Paris

At the 19th session of the Conference of the Parties to the UNFCCC (COP 19) in Warsaw in 2013, the parties agreed to specify their planned greenhouse gas reductions (intended nationally determined contributions, INDCs) in preparation for a comprehensive new global climate agreement. Subesequently, the IKI started several projects to support partner countries with the task of developing these INDCs. IKI will organise an international workshop in Berlin in 2015 to provide a broad framework for a comprehensive exchange of information. The participants will discuss their experience with preparing the INDCs and measures within and outside the IKI projects.

Forest conservation high on the agenda

In September 2014, the UN special climate summit approved the New York Declaration on Forests. More than 150 countries, enterprises, indigenous peoples and civil society organisations undertook to play an active role worldwide in promoting forest conservation. The declaration calls for an end to deforestation by 2030 and the establishment of deforestation-free supply chains. Germany is supporting the implementation of the declaration through a number of IKI projects, for example in Brazil, Indonesia and Rwanda, where methods of restoring forest areas are being developed and implemented. At the summit, the Federal Environment Ministry also entered into a partnership with Norway for conserving forests in Peru. This initiative is also being supported by the IKI through projects for establishing a national REDD+ system in Peru.

Mitigating
Greenhouse Gas Emissions



"Without significant cuts in emissions by all countries, and in key sectors, the window of opportunity to stay within less than two degrees will soon close forever"

Ban Ki-moon[3]

The projects in the funding area concerned with mitigation of greenhouse gas emissions address all sectors defined by the IPCC as impacting on the climate, with a focus on energy, transport/mobility and construction. The conceptual focus is on developing and implementing low-carbon development strategies (LCDS), nationally appropriate mitigation actions (NAMAs), and measuring, reporting and verification systems (MRV). Other tasks include mobilising additional public and private funding for reduction measures, developing national contributions (intended nationally determined contributions, INDCs) for a new global climate agreement, and sustainable, low-carbon and green economy/green growth strategies.

A number of IKI projects promoted by the Federal Environment Ministry in the field of mitigating greenhouse gas emissions are described below to give an insight into the funding area.

Support in Implementing International Agreements

The IKI projects in this sector make an important contribution with regard to preparing and implementing measures to reduce or prevent greenhouse gases. Selected partner countries receive support not only with the development of their INDCs, but also with drafting long-term emission reduction strategies to be identified by 2020 and subsequently implemented. For example, bilateral projects are supporting Costa Rica in developing a climate-neutral strategy or Central Asia in developing integrated approaches to climate-friendly economic growth. There are also global projects that promote the development of NAMAs in various sectors.

Low-emission strategies create the structured guidance framework needed for a national climate policy that can supply aggregated reduction contributions and provide pointers to appropriate sectorial measures. Other projects are concerned with developing and implementing green economy strategies and measures to connect national climate policy with relevant sectorial policies (paying particular attention to coherence of climate and energy policy). This permits a management approach that is ecologically sustainable, socially balanced and at the same time economically profitable. It decouples economic growth and social development from rising greenhouse gas emissions. Relevant actions include improving resource efficiency, introducing closed substance cycles, or replacing fossil fuels with renewable energy sources.

THE NAMA FACILITY

Using IKI funds, the NAMA Facility was established jointly in 2012 by the Federal Environment Ministry and the UK Department of Energy and Climate Change (DECC). It is intended to close gaps in funding for implementing climate change mitigation measures in emerging economies and developing countries and provide targeted support for implementing ambitious NAMAs in the partner countries. The projects to be supported by the NAMA Facility are selected through open competitive bidding rounds in which the decisive criterion is the level of ambition. That means that not only is their emission reduction potential considered, but also other aspects such as additional benefit for sustainable development, opportunities for mobilising further financial resources and the basic transformational impact of the NAMA approach on the sector in question. Since 2013, a NAMA for energy-efficient housing has been funded as a pilot project in Mexico. In the same year, a first NAMA Facility selection round identified several project proposals as meriting support: renewable energy sources in Chile, sustainable coffee production and processing in Costa Rica, sustainable urban transport in Indonesia, and transit-oriented development in Colombia. Four more project proposals were preselected in 2014: sustainable energy production from biomass in Burkina Faso, sustainable urban transport in Peru, afforestation and sustainable forest management in Tajikistan, and efficient refrigeration and air conditioning in Thailand. The projects combine both financial and technical cooperation instruments. To date[4], BMUB and DECC have made available a total of €120 million for the NAMA Facility. A third selection round with additional funds is planned for 2015; here the donors will be joined by Denmark and the European Commission.

→ www.nama-facility.org

Solar heat collectors, residential area in Villa de las Palmas Aguascalientes.

PROJECT EXAMPLE

PROJECT DATA

Project Title: Mexican-German Climate Alliance
Country: Mexico
Implementing Organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB funding: €7.5 million
Duration: 2010 – 2017

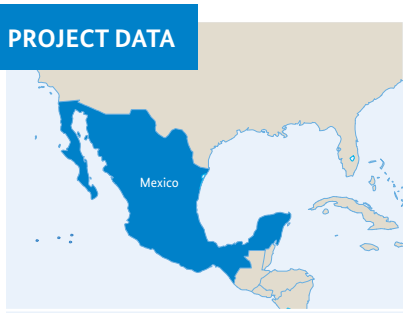
German-Mexican Climate Alliance for the Future

In 2012, Mexico became one of the first countries worldwide to pass comprehensive climate legislation setting out its ambitious greenhouse gas reduction targets. They included a 30% reduction in emissions by 2020 compared with 'business as usual', and a 50% reduction by 2050 compared with the year 2000. Furthermore, the subsidies for fossil fuels were to be discontinued by 2020, and by 2024 at least 35% of electricity consumption was to come from climate-friendly energy sources. The plans for implementing these targets are described in the national climate change programme (PECC, Programa Especial de Cambio Climático).

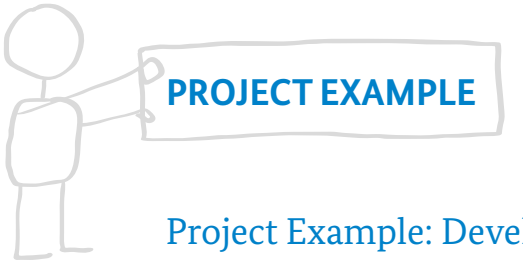
The IKI has been supporting Mexico in implementing this plan since 2010, partly through the Mexican-German Climate Alliance. One example of the project's activities was to have the first phase (PECC I) evaluated externally by independent experts in order to identify the most effective measures for greenhouse gas reduction and adaptation to climate change. At the same time, the project investigated the methods used in reporting on the implementation and effectiveness of the programme, and supported the planning process in the field of adaptation to climate change. On this basis, an instrument for qualitative and economic prioritisation of adaptation measures was developed in an inter-ministerial consultation process.

This climate alliance gave rise to the Mexican-German NAMA Programme which produced the world's first NAMA on energy efficiency in new social housing. Implementation has been ongoing since 2013 with funds from the NAMA Facility (see page 25). By the end of 2014, the NAMA programme had also developed approaches to improve energy efficiency in more than 8,000 small and medium-sized enterprises (SMEs). Energy efficiency also plays a major role in a NAMA approach in the road transport sector that is aimed at small and micro-businesses in the logistics industry. The project cooperated with the Mexican Ministry of Transport, providing a credit guarantee to make the scrapping premium, which was introduced to promote modernisation of the vehicle fleet, more attractive for these carriers. The project also advised the Ministry of Transport on the introduction of an emissions standard (Euro VI). The IKI also provides cross-sectorial support for the establishment of a national NAMA coordination, registration and monitoring system.

PROJECT DATA



Project title: Mexican-German NAMA Programme
Country: Mexico
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB funding: €7 million
Duration: 2011 – 2015



PROJECT EXAMPLE

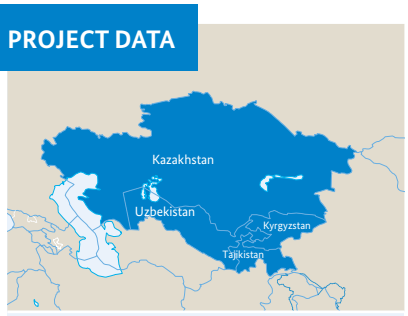
Project Example: Developing climate-friendly economies in Central Asia

Since 2011, this project in Central Asia has been supporting the partner countries Kyrgyzstan, Tajikistan and Uzbekistan in developing climate strategies at regional level in the form of NAMAs. In this process the partner countries profit from sharing information with each other: they can adapt model NAMAs to address their own national problems, and they can run joint training courses, seminars and consultations.

As a result, a NAMA for energy-efficient refurbishment of multi-storey residential buildings was developed for Tashkent, the capital of Uzbekistan, toreduce the buildings' heating requirements by around 40%. The occupants have borne a share of the costs by making available the energy costs saved during the first six years.

The project enables Kyrgyzstan to modernise about 800 small heating plants, which should reduce greenhouse gas emissions by more than 30%. This also improves heat supplies to about 60 of the country's schools, kindergartens and hospitals, and to individual residential areas. Moreover, the programme supports the process of giving local authorities responsibility for heat supply, which has hitherto been regulated at national level. Neighbouring Tajikistan has already expressed interest in adopting this approach.

PROJECT DATA

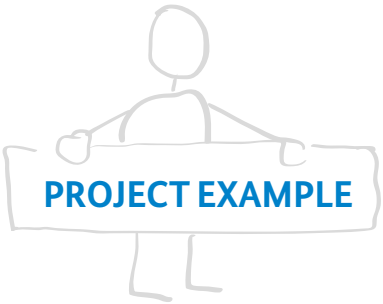


Project title: Integrated Approaches For Developing Climate-Friendly Economies in Central Asia
Countries: Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan
Implementing organisation: Deutsches Institut für Wirtschaftsforschung (DIW) e.V.
BMUB funding: €2.9 million
Duration: 2011 – 2015

In Kazakhstan the green growth strategy supported by the project intends to bring a substantial reduction of 50% in the country's energy intensity by 2050. To achieve this target and make a contribution to reducing greenhouse gas emissions, the electricity and heating sectors – which have hitherto been based on coal – are to be converted to natural gas. At the same time, the share contributed by alternative energy sources is to be gradually increased to 50% by 2050.

Measuring and Reporting Greenhouse Gas Emissions

In most reduction projects, measurement, reporting and verification of greenhouse gas emissions (MRV) is a cross-sectional theme of central importance. The term MRV describes several processes. First, it involves collecting data needed to implement climate change mitigation activities and to measure greenhouse gas emissions. The data are formatted appropriately for reporting purposes. The formats may be greenhouse gas inventories or the regular progress reports (Biennial Update Reports, BUR) for the UNFCCC. Since December 2014, the latter have to be prepared biannually by the countries party to the UN Framework Convention on Climate Change. At present, verification of the reports by an independent institution is still voluntary. It guarantees the credibility of the mechanism vis-à-vis the sponsoring institutions and the other parties to the Convention. The Intergovernmental Panel on Climate Change (IPCC) has published rules for the design of such greenhouse gas inventories and the relevant reports. Furthermore, MRV must be integrated into overarching climate strategies such as NAMAs or LCDS to ensure that their impacts can be recorded and assessed.

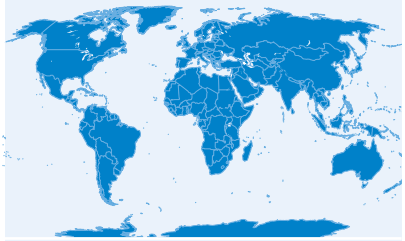


Building MRV capacity

Together with the European Commission and the Australian Government, the IKI is financing the Low Emission Capacity Building (LECB) Programme. Its task is to build capacity in the fields of LCDS, NAMAs and MRV in 25 partner countries. Among other things, the programme prepares technical aids and studies relating to the establishment of national greenhouse gas inventories. In the Philippines, for example, the activities of the LECB programme are supporting implementation of the national strategy on climate change. Together with all relevant actors in the country, it is developing NAMA options for the agriculture, waste management, industry, and transport sectors. At the same time, the Philippines Government is setting up a national MRV system to create a basis for formulating its reduction targets. The programme has also supported the establishment of the Philippines greenhouse gas inventory and the creation of an electronic database for central collection of climate-related data. In future this will be a central building block of the national MRV system.

The LECB programme supports a total of 60 NAMAs and corresponding MRV systems, 13 national or sectorial LCDS and 17 national greenhouse gas inventories in the project's partner countries. The private sector is of great importance in all activities and is involved in the preparation of NAMAs in 15 countries.

PROJECT DATA



Project title: Low Emission Capacity Building (LECB) Programme
Country: Global/25 partner countries
Implementing organisation: United Nations Development Programme (UNDP)
BMUB funding: €10 million
Duration: 2010 – 2016

Expanding Renewable Energy and Improving Energy Efficiency

More than half of all worldwide CO_2 emissions are due to the use of fossil energy sources. At the same time, the use of fossil fuels has been responsible for 78% of the global increase in greenhouse gases over the last 40 years. CO_2 emissions are caused by burning coal, oil and gas to generate electricity, heat and cooling and for industrial processes. For this reason, compliance with the two-degree target is unthinkable without substantial expansion of a sustainable low-emission supply of energy for industry and households. Expansion of renewable energy plays a key role here, in addition to reducing consumption of fossil energy sources and making more efficient use of them (energy efficiency). Through its 'Energiewende'

Solar thermal power station “India One”, Rajasthan, India.

(energy transition), Germany has initiated a reform process that is ambitious by international standards, and which many countries are observing with great interest.

Investment in efficient and sustainable energy supply systems is still fraught with great uncertainty, especially in emerging economies and developing countries. This is due to inadequate administrative and policy frameworks or unfavourable energy industry structures, and to technological standards geared entirely to the use of energy sources that impact on the climate. Moreover, many countries subsidise fossil fuels, giving them a competitive advantage over sustainable energy sources.

IKI projects therefore contribute to creating a favourable framework for policy, technology, and conditions governing the economic and financial-market environment. A positive and reliable investment climate can support commercial distribution of sustainable energy technologies in the partner countries and thereby mobilise private capital for climate change mitigation in those countries. In practical terms, partner governments are given advice on preparing integrated, sustainable energy concepts (for example Sustainable Energy Roadmaps), designing legislation to promote renewable energy and energy efficiency and reducing/eliminating climate-damaging energy subsidies, electricity market design and grid expansion, and – increasingly – integrating energy programmes into overall climate policy strategies. Other key areas are capacity building in the partner countries, technological cooperation, financing instruments for the energy sector, and implementing lighthouse projects. One example of such a lighthouse project is the solar thermal power plant India One in Rajasthan, India. Furthermore, several IKI projects have successfully initiated Public-Private-Partnerships (PPPs), for example the cooperation with the water supply sector in Jordan, which has resulted in a dramatic reduction in electricity consumption.

The technological focus of the projects in the field of renewable energy is solar thermal energy, photovoltaic systems (PV), concentrated solar power (CSP), bioenergy and wind energy.

In Costa Rica training in the field of renewable energy was supported from 2011 to 2013 by funding for a new centre at the **EARTH University** in Guácimo. The head of the CIDER training centre for the use of renewable energy sources (Centro de Investigación y Desarrollo de Energías Renovables) is **Dr Bert Kohlmann**.

In 2011 a training centre for the use of renewable energy was set up with support from the IKI. What subjects does it offer?

Kohlmann: Our range of courses and subjects covers the theory and practice of using all kinds of renewable energy from wind, sun or biogas. The centre has the first – and indeed only – biogas laboratory in Central America. Since we are an agricultural university, we concentrate on technological applications that are suitable for small or medium-scale farms. Many of them cannot afford expensive systems. So we try to demonstrate ways in which they can build their own renewable energy systems.

At the EARTH University you address topics such as alternative agricultural and waste management. Can you give us an example?

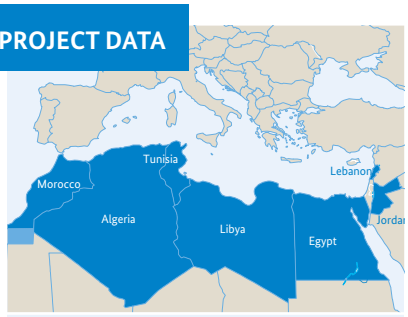
Kohlmann: Unused agricultural waste is a major problem in Costa Rica. We show local farmers that biowaste can be used to generate electricity, which in turn can be used to refrigerate agricultural produce. In other words, we demonstrate that this waste has economic value. Since a number of other Central American states also have serious problems with farm waste, these solutions are of great relevance.

What new opportunities and forms of collaboration have arisen for the EARTH University as a result of its cooperation with the IKI?

Kohlmann: We are now cooperating with Berlin University of Applied Sciences (HTW) in the field of biogas. We are also cooperating with the Renewables Academy (RENAC) and with the support of Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG) we are working on a course that will enable Latin American students to specialise in renewable energy in preparation for attending a university in Germany.

PROJECT EXAMPLE

PROJECT DATA



Project title: Training on Integrating Renewables into the Electricity Grid
Countries: Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Tunisia
Implementing organisation: Renewables Academy (RENAC) AG
BMUB funding: €1.8 million
Duration: 2010 – 2014

Feeding Renewable Energy into the Grid in North Africa

Owing to its geographical situation – high direct insolation and frequent high wind speeds – the MENA region (Middle East and North Africa) has great potential for using renewable energy. At present this potential is nowhere near exploited, partly because of a lack of skilled personnel. Grid integration issues in particular present the partner countries with great challenges. This is the starting point for the IKI project on training and professional development courses on integration of renewable energy into the electricity grid. Engineers and experts from Algeria, Egypt, Jordan, Lebanon, Libya, Morocco and Tunisia are being trained in the fields of grid connection conditions, capacity and reserve forecasts for grids, and capacity and investment planning. Since 2012, more than 300 participants have successfully completed such online training courses. Together with a further 140 participants from face-to-face courses, they were awarded the ReGrid Manager certificate developed under the IKI project.

The project was run by RENAC in close collaboration with ministries, grid operators, regulators, supply companies and engineering consultants in the target countries, and in cooperation with the German development cooperation institutions. Through a series of high-impact on-site exhibitions, RENAC has also demonstrated the opportunities for using renewable energy and the technical challenges involved. RENAC plans to implement similar approaches in countries in Asia and Latin America.

International Carbon Markets

Publicly financed measures are insufficient on their own to combat climate change effectively. Additional private investment is needed to make the necessary capital available worldwide for reduction and adaptation measures. Emissions trading schemes (ETS) and the project-related mechanisms established by the Kyoto Protocol (Clean Development Mechanism, CDM, and Joint Implementation, JI) can strengthen cooperation between industrialised and developing countries and generate additional resources. As market-based instruments, they attribute an economic value to the emission of greenhouse gases and thereby create incentives to invest in low-CO_2 technologies.

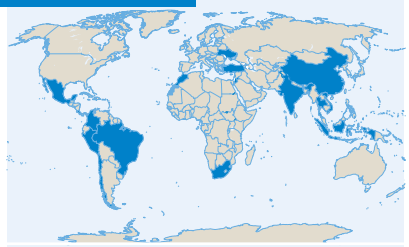
Emissions trading schemes cap greenhouse gas emissions for policy reasons, that is to make climate-relevant gases a scarce resource. Below this ceiling, tradable emission allowances are allocated to companies or plant operators. While the price of an allowance depends on supply and demand, the system of trading allowances means that the first tonnes of CO_2 reduced are those involving the lowest reduction costs. With the aid of the CDM and JI, reductions achieved outside an ETS, for example in emerging economies or developing countries, can also be counted as credits or allowances. For these CO_2 savings to be transferable from one system to another and thus be tradable, compliance with international standards must be assured. The country of origin profits from the CDM and JI mainly as a result of technology transfer, which promotes sustainable low-carbon development.

In addition to the EU, a large number of countries, regions and cities have already implemented emissions trading schemes or are testing their use. At the same time, the international community is working to extend the project-related mechanisms to larger-scale programmes with the aim of lowering the transaction costs of these reductions. Under the CDM, this is already being done through the Program of Activities (PoA), which bundles a large number of similar individual measures within a region. This considerably increases the reduction potential that can be exploited and at the same time offers process-related advantages. Preparations are also being made to expand this to entire sectors, for example through new market mechanisms.

For example, IKI projects support the competent national authorities in developing implementable PoAs under the CDM up to the point of registration with the UNFCCC. To promote its own programme development, especially in the least developed countries (LDCs) or small island developing states (SIDS), the IKI also supports the development of standards for PoAs. In addition, the IKI supports the necessary framework conditions for emissions trading systems. Examples include legislation processes or the establishment of emissions exchanges.

PROJECT EXAMPLE

PROJECT DATA



Project title: Partnership for Market Readiness (PMR)
Countries: Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, Jordan, Mexico, Morocco, Peru, South Africa, Thailand, Tunisia, Turkey, Ukraine, Viet Nam
Implementing organisation: The World Bank
BMUB funding: €10 million
Duration: 2011 – 2021

Innovative Market Mechanisms for Climate Change Mitigation

Many emerging economies and developing and transition countries are seeking to achieve their reduction targets faster and at lower cost by using market-based instruments. To support these countries, industrialised countries have created the Partnership for Market Readiness (PMR) with the aid of the World Bank. Under the PMR, interested countries are discussing and testing various models and methods for introducing instruments for pricing CO_2 emissions. The Federal Environment Ministry is one of 13 donors promoting the PMR via the IKI. A total of about US$127 million is available for the PMR.

Thanks to the semi-annual meetings of its members and numerous technical workshops, the PMR has become an important forum for sharing information on market-based policy instruments. In 2014 the PMR, in addition to its existing working groups, established three new working groups dealing with CO_2 taxation, emissions trading systems and emissions registers.

Beyond that the PMR supports participating states with their market readiness proposals (MRPs), which are detailed implementation plans for the introduction and practical design of CO_2 pricing. The MRPs are closely coordinated and take account of the specific framework conditions and local economic or development policy priorities.

Numerous countries have already submitted their proposals and are receiving assistance with their practical implementation from the PMR. This includes central building blocks of CO_2 pricing, such as the creation of legal frameworks, so that companies or plant operators in certain sectors of industry can measure, report and verify (MRV) their CO_2 emissions in standardised form.

PROJECT EXAMPLE

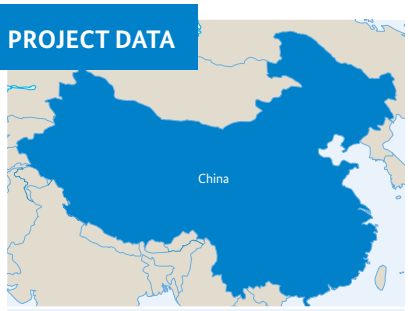
China sends Climate Signals

As the world's biggest emitter of greenhouse gases, the Chinese Government has set itself the target of cutting its CO_2 emissions by 40-45% per unit of gross domestic product by the year 2020, compared with the 2005 base year. To this end, the 12th Five Year Plan (2011-2015, FYP) and other documents provide for the gradual introduction of an emissions trading system (ETS). The approach was launched in mid-2013 in the form of local emissions trading systems in seven pilot regions. Experience from the pilot regions will be used in the development of a comprehensive national carbon market during the period of the 13th FYP (2016-2020).

The IKI project supports the introduction of the ETS in the pilot regions, especially Shanghai, Shenzhen and the provinces of Guangdong and Hubei. It advises local government and authorities on the development, establishment, implementation and refinement of the pilot trading systems. The ETS in Shenzhen is on of the first systems worldwide to include the transport sector. From 2015 onward, public transport – initially bus and taxi fleets – is to become part of the emissions trading system. The IKI project supports the Chinese partners in verifying processes and outcomes so that they can be used as a basis for drafting policy options and recommendations for integrating the transport sector into the national system.

The local schemes will also be brought into line with the national emissions trading system. The focus is on structure and supervision, regulation, institutional frameworks, setting the emission ceiling, allocating the ETS's allowances, trading platforms and carbon registers at local level, and also relevant secondary legislation. The project offers training courses and seminars for these processes. There is also an exchange of knowledge and experience with representatives of European industry, such as Saarstahl, Holcim, GASAG and AG Energiebilanzen e.V. This enables Chinese business people to benefit from existing experience and discuss bespoke solutions and strategies for their sector.

PROJECT DATA



Project title: Supporting the Establishment of a National Emissions Trading Scheme (ETS) in China
Country: China
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB funding: €4 million
Duration: 2012 – 2016

Sustainable Transport

'Transport differs from other problems because it gets worse rather than better with economic development.'[5] For example, whereas energy supply or waste disposal improves with economic growth, increasing traffic in many parts of the world results in more traffic jams, more accidents, more air pollution and more noise. This has substantial negative impacts on the population's health and quality of life.

The transport sector is of special importance for climate change mitigation: in 2011, it was responsible for nearly a quarter of all energy-related greenhouse gas emissions. If current trends are not stopped, worldwide greenhouse gas emissions in the transport sector will double to one billion tonnes between 2000 and 2050. The International Energy Agency (IEA) expects the transport sector to be the main factor responsible for the growth in demand for oil until the year 2035.[6] Road freight transport in Asia alone is projected to account for one third of the net growth in demand for oil. To counteract the resulting negative impacts, there are various complementary approaches: avoid traffic, for example by smart urban planning; achieve a modal shift, for example from private cars to public transport; and improve transport, for example by using fuel-saving technologies. This can make it possible to combine economic growth with sustainable and climate-friendly mobility.

The IKI promotes projects that are particularly effective at reducing greenhouse gases and at the same time solve as many other transport-related problems as possible. It supports partner countries in improving the data situation so that they can identify and implement such policies and strategies. South-South exchanges are among the instruments used to share experience and strengthen capacity.

PROJECT EXAMPLE

Climate-friendly Mobility

Since 2010, the IKI's TRANSfer project has been developing transport NAMAs, that is comprehensive climate change mitigation programmes in the transport sector, in the partner countries South Africa, Colombia, Indonesia and Peru. They build on concepts and technologies that are in successful use in Germany, for example public transport systems or fuel standards that result in lower greenhouse gas emissions. Information on concepts and technologies has been prepared and compiled in cooperation with the UNFCCC Secretariat in a handbook entitled 'Navigating Transport NAMAs'.[7]

The partner countries have used this as a basis for taking first practical steps. For example, the Colombian Government has replaced its national fleet of commercial vehicles, as the existing fleet was responsible for a large proportion of CO_2 emissions in the transport sector. Also in Colombia, a TRANSfer report on fuel quality standards was the basis for the introduction of stricter standards for diesel fuels. The Indonesian Government worked with the project to draw up a proposal for sustainable urban transport that was selected for support by the UK-German NAMA Facility. Various aspects of sustainable urban transport have been implemented in a number of pilot cities and will serve as a basis for a national programme. The measures include improved infrastructure for pedestrians, parking space management and the introduction of integrated public transport networks.

The project partner is the German Partnership for Sustainable Mobility (GPSM),[8] which is jointly funded by BMUB and BMZ. The GPSM provides know-how on innovative transport technologies and sustainable transport solutions. In this context, TRANSfer supports the exchange of information between emerging economies or developing countries and experts from Germany. The project plays an active role at international climate and transport conferences, partly to contribute the lessons learned with the partner countries, and partly to ensure the flow of feedback to the countries from these conferences. TRANSfer thus plays an important role as mediator between climate experts and transport experts, thereby tapping considerable potential for synergies.

PROJECT DATA

Project title: Transfer of Climate-Friendly Transport Technologies and Measures (TRANSfer I + II)
Countries: Indonesia, Colombia, Peru, South Africa, Philippines
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB funding: €7.5 million (for Transfer I and II)
Duration: 2010 to 2016

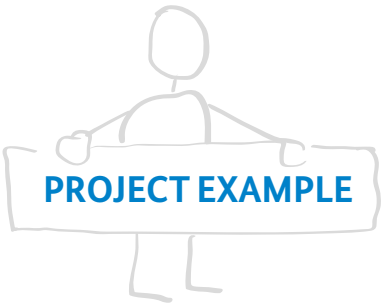
Natural refrigerants support supermarkets in reducing their CO_2 emissions.

Natural Refrigerants are better for the Climate

The worldwide phasing out of ozone-depleting chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) is regulated by the Montreal Protocol of 1987, which has binding force under international law. Since then the alternative refrigerants used have mostly been fluorinated gases (F-gases) such as perfluorocarbons (PFCs) and partially hydrofluorocarbons (HFCs). These are ozone-neutral and therefore not governed by the Montreal Protocol. They are however extremely harmful to the climate. For example, the greenhouse gas effect of the refrigerant R404a is roughly 3,900 times higher than that of carbon dioxide. These F-gases are found mainly in air-conditioning and refrigeration systems, as blowing agents in insulating materials, and as propellants in spray cans or fire extinguishers. By 2030 they may be responsible for up to 13.1% of global warming, because demand for commercial refrigeration or for domestic air-conditioning systems is growing fast, especially in developing countries and emerging economies.

For some years now there have been climate-friendly alternatives to F-gases on the market that also protect the ozone layer. These 'natural refrigerants' such as carbon dioxide (CO_2) or ammonia or hydrocarbons such as propane and isobutane can sustainably meet the growing demand for cooling and refrigeration. The challenge for the international community now consists in targeted replacement of the refrigerant gases. IKI projects promote the use of these climate-friendly technologies to protect both the ozone layer and the climate. The focus here is on policy advice, especially expert advice for governments on drafting rules and laying down guidelines that conform to international environmental conventions. Other projects specialise in drafting NAMAs in the refrigeration and insulating foam sectors. The development of best-practice examples is intended to provide models for other countries and sectors.

In the partner countries the IKI promotes the initiation and establishment of technological cooperation between donors and users of technology and between the partner countries. Long-term and sustainable results are achieved by capacity building and know-how transfer in the field of eco-friendly and climate-friendly refrigeration, air-conditioning and insulation technologies. The IKI provides advice on planning and installation, and on the construction and modification of production plants. It also offers guidance on the selection of environmentally sound alternatives to ozone-depleting and climate-damaging substances. Moreover, the IKI ensures advice for decision-makers in politics and industry on the management and disposal of ozone-depleting substances and end-of-life equipment containing such substances.



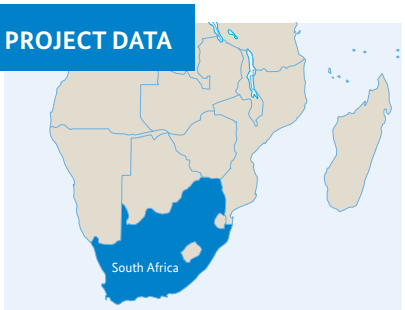
Project Example: Innovative Refrigeration Systems in South Africa's Supermarkets

In South Africa 70% of energy consumption in supermarkets is due solely to refrigeration of food products and air conditioning of sales and storage space. In most cases the refrigerants used are fluorinated greenhouse gases. This refrigeration equipment also consumes considerably more power than comparable equipment using natural refrigerants. Moreover, its manufacture and disposal gives rise to considerable quantities of climate-damaging substances. Modern and technically mature refrigeration systems using natural refrigerants have been on the market for some time now. They save electricity costs in use, and on disposal release far smaller amounts of refrigerants with a high global warming potential.

In conjunction with South Africa's largest supermarket chain Pick'n Pay, the IKI has developed a project to promote the switch to natural refrigerants. Thanks to technical and financial support from the IKI, the company was able to replace its inefficient air-conditioning and refrigeration equipment with modern, energy-saving systems. It installed a cascade refrigeration system running on ozone-friendly and climate-friendly carbon dioxide and ammonia, initially in two supermarkets in Cape Town and Gauteng.

To assess the impact of the changeover to natural refrigerants, equipment for measuring the emissions and power consumption of the refrigeration systems was installed at non-converted branches of Pick'n Pay. An analysis of the comparative data revealed substantial efficiency improvements at the two converted branches. For the two branches together, the emissions totalling 2,000 tonnes of CO_{2eq} (CO_2 equivalent) were prevented as a result of ozone-depleting and climate-relevant refrigerants no longer being released from conventional refrigeration systems. Moreover, the power consumption of the new refrigeration systems is up to 26% lower than in the reference branches. The saving in electricity costs means that the investment in modern refrigeration systems pays for itself within a few years, depending on the size of the supermarket, that is the project demonstrated that the changeover to natural refrigerants and energy-saving technology was worthwhile not only from an environmental point of view, but also in economic terms. Following the IKI project, Pick'n Pay has independently installed climate-friendly refrigeration systems in 25 new branches. The project has made the South African Supermarket Association and the Consumer Goods Forum aware of the successful results. Both are now encouraging widespread use of the climate-friendly technologies.

PROJECT DATA



Project title: Switching Supermarkets from Using Halogenated to Natural Refrigerants
Country: South Africa
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB funding: €1.8 million
Duration: 2008 – 2013

Adapting to the impacts of climate change

"For wheat, rice, and maize in tropical and temperate regions, climate change without adaptation is projected to negatively impact..."

IPCC Report [9]

The approaches to adaptation to climate change are diverse because climate change impacts on all aspects of life and thus requires different stakeholders to take whatever action is appropriate for them. Concrete measures therefore range from local activities – for example, more effective cultivation and irrigation methods in agriculture – or new private sector services such as climate insurance, through to planning adaptation strategies and setting up monitoring systems to document successful adaptation measures.

IKI projects work with partner countries to develop practical technical measures in agriculture, urban development, nature conservation and food security. In addition to improving the country's capacity to adapt, this approach has other positive secondary effects. A successful example is Mexico, where small-scale farmers were advised about farming methods adapted to climate change. One outcome is a significant increase in yield, which has played a role in reducing poverty. This approach has also proven successful in Viet Nam: one project supports the preservation of mangrove belts that protect the coast from flooding during storms. This has simultaneously regenerated fish stocks, thereby increasing the population's food security. At the same time, carbon remains stored in the mangrove forests.

Adaptation projects support what is known as ecosystem-based adaptation (EbA), but also focus on providing advice about developing and implementing overarching adaptation strategies to ensure that climate risks are incorporated into development planning. The impetus came from the 16th meeting of the Conference of the Parties to the UNFCCC (COP 16) held in 2010 in Cancún, where a resolution was passed to support developing countries in the creation of national adaptation plans (NAPs). The third focus is providing support for insurance to cover extreme weather events, which are increasing in frequency as the climate changes.

The following section presents a selection of IKI climate adaptation projects that are funded by BMUB and provide insight into the funding area.

Developing and Implementing National Adaptation Strategies

National adaptation strategies support the partner countries in preparing for the impacts of climate change. What are known as national adaptation programmes of action (NAPAs) focus on the immediate adaptation needs of least developed countries (LDCs) and are designed to facilitate fast and straightforward assistance. In addition, long-term NAPs are a further element of the national adaptation strategies; they ensure the development and implementation of technical measures and serve as the basis for institutional or financial support. National adaptation strategies generally involve several thematic areas, government agencies and application fields at national and local level. The main focus of IKI projects is support for optimising land-use concepts and water management as well as integrating adaptation aspects into cross-sectorial strategies.

Mapping of land rights, Maitum, Sarangani.

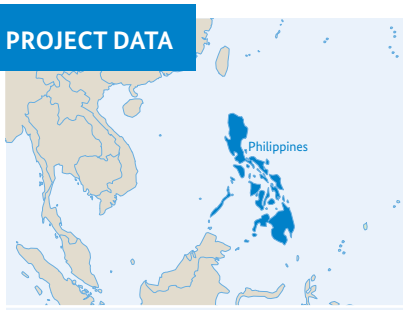
PROJECT EXAMPLE

Support for Philippine Adaptation Planning and Climate Strategy

According to the *2014 World Risk Report*,[10] the Philippines is one of the ten nations in the world most at risk of natural disasters. As an island state, it is especially hard hit by the negative effects of climate change. In the last few years, the Philippine Government has created a policy framework, the National Climate Action Plan, to tackle the challenges of adapting to climate change. The project entitled Support to the Philippine Climate Change Commission in the Implementation of the National Framework Strategy on Climate Change and National Climate Change Action Plan provides support for Philippine government institutions on how to more effectively factor the impacts of climate change into their planning. Working with the Global Green Growth Institute, it supported an initiative by the Climate Commission to raise awareness in the cities and municipalities about the impacts of climate change. To achieve this, recommendations for practical adaptation measures were made and implemented, for example, for the town of San Vicente on Palawan, which included constructing dykes, setting up early warning systems and introducing modern farming methods. This means more income security for the people living there because risk management enables them to protect their yields better.

The lessons learned from the pilot measures are incorporated into the on-going policy dialogue and serve as a basis for identifying national guidelines for how economic development can be secured against climate risks ('climate proofing').

PROJECT DATA



Project title: Support to the Philippine Climate Change Commission in the Implementation of the National Framework Strategy on Climate Change and National Climate Change Action Plan
Country: Philippines
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB grant: €3 million for Phase I
Project duration: 2012 – 2015

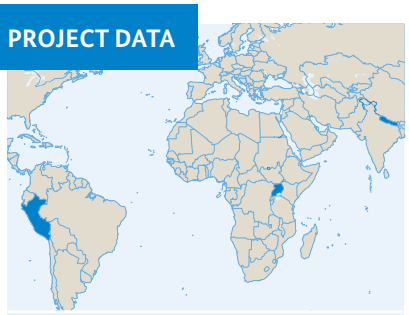
Nature as a Service Provider

Stable ecosystems, such as forests, wetlands, mangrove forests or coral reefs provide basic services for people. They maintain soil fertility and biodiversity, make clean water available and protect against flooding or erosion. EbA is an approach designed to help people adapt to climate change by using ecosystems and their services. In practical terms, measures designed to protect and restore these ecosystems and use their natural resources and services sustainably are therefore a special focus.

The EbA approach is often cheaper and more sustainable than technically oriented adaptation solutions. At the climate negotiations in Lima in 2014, it was widely recognised that greater priority needs to be given to ecosystems and their services in the future. Also at the 12th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 12) held in Pyeongchang, South Korea, in 2014, the key role of ecosystem-based approaches to fighting climate change and catastrophes was explicitly stressed.[11]

PROJECT EXAMPLE

PROJECT DATA



Project title: Ecosystem-Based Adaptation in Mountain Ecosystems
Countries: Nepal, Peru, Uganda
Implementing organisation: United Nations Environmental Programme (UNEP), United Nations Developmental Programme (UNDP), International Union for Conservation of Nature (IUCN)
BMUB grant: €11.5 million
Project duration: 2010 – 2015

Using Ecosystems in Mountain Regions

Evidence of climate change, such as melting glaciers, is already clearly apparent in mountain regions all over the world. To absorb the negative impacts of climate change, it is crucial that ecosystems be kept intact and used in such a way that their functions support the ability of the population to adapt. The IKI is therefore financing a project in Nepal, Peru and Uganda that develops and applies EbA methods and instruments specially tailored to mountain ecosystems.

The landscapes and their ecosystems vary from region to region, as do the projected climate changes and social and economic structures. Vulnerability analyses therefore need to be carried out for the planning processes of the different regions. These studies look at the specific risks stemming from climate change and assess to what extent people are prepared for them. Based on these analyses and the needs of the affected communities, the project works with the population and local institutions to plan and implement measures in selected regions.

In the Himalayan region of Panchase in Nepal, local partners decided to restore old ponds. At the same time, overgrazed areas are being protected and degraded regions reforested in the water catchment area. These

Collective planning of EbA measures in Peru.

measures aim to restore the soil's capacity to hold water. The water in the more than 50 restored water sources and ponds can now be used by households, and for livestock and farming, long after the monsoon season is over. Planting slopes has reduced the risk of erosion. It also helps meet basic needs and increases income through sale of the produce. The lessons learned in the pilot projects serve as the basis for experimental learning between regions and countries. The partner countries each develop their own methods, for example, for the analysis of climate impacts and vulnerabilities, and share information in regular workshops.

The project presents its findings at UNFCCC conferences and other relevant forums, for example at the annual Adaptation Knowledge Days, so that other countries can benefit from what has been learned. The United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and the International Union for the Conservation of Nature (IUCN) have joined forces for the first time to work together in this project to promote ecosystem-based adaptation (EbA). The partners not only contribute their comparative advantages, but also are able to capitalise on the experience to benefit their own institutions. EbA approaches are therefore promoted within these organisations and their networks. The project is widely recognised for its expertise in EbA and gives input to UNFCCC committees when asked. Experiences from the project have been incorporated, for example, into the Nairobi Work Programme, which now has a stronger focus on EbA.

Musonda Mumba received her PhD in wetland conservation and hydrology at University College London.
She is the programme officer and UNEP's coordinator of the Ecosystem-based Adaptation (EbA) Flagship Programme.

Why is this project working on three different continents?

Mumba: Different aspects play a role in different ecosystems and this project enables us to compare them. Peru and Nepal are high mountain ecosystems that lie more than 4,000 metres above sea level. In Uganda, on the other hand, the mountain ecosystem is not quite as high as in the other countries. As a result, the processes that affect the communities in these three countries are very specific. At the same time, we want to make sure that we understand the global impacts of climate change on these different groups better and can communicate them more effectively.

The project aims to enable communities to use ecosystem services to adapt to climate change. What does this mean in practical terms at the local level?

Mumba: The communities are dependent on provisioning and regulating ecosystem services, such as water supply, firewood or temperature regulation. The regions studied also have a special cultural value for the communities. Many areas in Peru and in Nepal are sacred and they are very beautiful. These values inherent in the ecosystems cannot be expressed in monetary or non-monetary terms and are closely linked to the life of the communities. But in some cases, the ecosystem services have changed dramatically. One example is in Uganda: in one of the communities where we work, we found that soil degradation had decreased the water supply to people living in the valley. Water is obviously crucial to survival. So we worked closely with the community to identify the causes of degradation and figure out how to restore damaged areas. Once an ecosystem is robust, it improves people's capacity for adaptation as well.

Can you give us another example of what the project has achieved so far?

Mumba: We don't impose solutions on communities in our work. Instead, we initiate a participatory process that also includes women and people of different ages to get a feel for how the environment has changed over time. On this basis, we can then make decisions about suitable solutions together. In Peru, for example, we successfully restored pastures that had been completely overgrazed and desolate. The solution to the problem has to come from the local people themselves. We then give them support. We work together to figure out how they can adapt better and restore the ecosystems. At a political level, we talk to governments about why ecosystem-based adaptation is a beneficial approach to helping communities and the economy adapt to climate change and increase their resilience. The economy, particularly in developing countries, is highly dependent on natural resources. One of the questions we are always asked in these discussions is how long will it take to see signs of success. Our answer is that the processes in question act as catalysts, meaning that the only way to achieve tangible results that benefit the communities and the national level is with long-term investments.

Securing livelihoods – Establishing Insurance Schemes

Low-income groups are especially affected by extreme weather events such as heavy rainfall or periods of drought. The loss of a harvest or of fertile land can also often mean the loss of the livelihoods of small-scale farmers in developing countries and emerging economies.

New insurance solutions that specifically target these risks offer the insured not only financial support in the event of loss, but also include preventative measures to mitigate risk. The IKI is working on a number of projects to develop the local range of weather insurance policies tailored to the needs and means of low-income groups and small-scale farmers.

PROJECT EXAMPLE

Insurance Solutions for Extreme Weather Events

The Caribbean is one of the regions of the world most affected by the impacts of climate change. Devastating hurricanes with extremely heavy rainfall and very high winds cause damage to and loss of infrastructure, livelihoods and human life. The IKI project has developed solutions in the region to address these problems. It now makes 'weather insurance' attractive and affordable for people who otherwise cannot insure themselves for financial reasons or who are not familiar with the principle of insurance.

Weather-index based insurance was developed under the scope of the project. On this basis, two new insurance products have been introduced to several Caribbean islands. The principle of weather-index based insurance is the following: the insured party is eligible for a claim when a defined index or threshold is exceeded. Wind speed and rainfall were the parameters defined by the implementing organisation in cooperation with local and international reinsurers and government authorities. If the defined levels of precipitation or wind speed are reached, the insured party automatically receives a pay-out. This eliminates the need for time-consuming on-site damage assessment and settlement. Processing is faster, less bureaucratic and costs less.

PROJECT DATA

Project title: Climate Risk Adaptation and Insurance in the Caribbean
Countries: Belize, Grenada, Guyana, Jamaica, St. Lucia
Implementing organisation: Munich Climate Insurance Initiative (MCII)
BMUB grant: €2 million
Project duration: 2011 to 2014

Weather insurance help make up for losses in case of damage due to flooding and windstorms.

The IKI project relies on groundbreaking new information and communication technologies. The parameters are calculated using weather satellites instead of a network of cost- and maintenance-intensive ground weather stations, as is usually the case. The use of mobile phones is also widespread in the Caribbean, which means that customers can be informed of the pay-out immediately by text message when the thresholds are exceeded. One particularly innovative measure alerts the insured parties of extreme weather events by text message when a major storm is expected. This means that risk management is predictive, giving the insured parties the chance to act quickly and take precautions to minimise potential damage.

This type of insurance was new to the region. The first step in the project was therefore to provide information about weather-index based insurance. Interested local insurance companies were trained in how to roll out weather-index based insurance. The project then helped them to set up efficient sales channels, making it possible to reach as many customers as possible while still keeping the cost of sales low. The project is also advising the relevant regulatory authorities on how to create the necessary legal framework for the sale and use of insurance policies.

In Grenada and the neighbouring island of St. Lucia, the Livelihood Protection Policy (LPP) created as part of the project, is now on the market. More than 500 people have already purchased this policy, only recently introduced. And, in St. Lucia, even the first pay-outs have been made: in December 2013, a severe storm passed over the island, bringing heavy rainfall exceeding the defined threshold. The insurance company paid compensation for the losses incurred directly within a few days and those affected were able to invest the money in reconstruction.

International Climate Protection Fellowships for future leaders from emerging and developing countries – Research on climate protection in Germany

Up to 20 future leaders and researchers from developing countries and emerging economies come to Germany annually to spend one year working or conducting research. They are awarded a Climate Protection Fellowship by the Alexander von Humboldt Foundation and work on issues related to climate change mitigation and resource conservation. The fellowship recipients work at an institute in Germany on a project of their choosing in the area of climate protection and resource conservation and receive training in methods and techniques. The Alexander von Humboldt Foundation heads up the programme in cooperation with the Federation of German Industry (Bundesverband der Deutschen Industrie – BDI), the Centre for International Postgraduate Studies in Environmental Management (CIPSEM) at TU Dresden, the German Academic Exchange Service (Deutscher Akademischer Austauschdienst – DAAD), the German Environment Foundation (Deutsche Bundesstiftung Umwelt – DBU), the Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Renewables Academy AG (RENAC). Host institutions include the Potsdam Institute for Climate Impact Research (PIK), departments at German universities, non-governmental organisations such as Germanwatch e.V. and the German Weather Service in Offenbach. Since 2009, 58 fellows from 37 countries have taken part in the programme. The themes range from research on the application of policy instruments, concepts to cut greenhouse gas emissions in specific sectors, and biodiversity conservation. Former recipients of the Humboldt Fellowship are part of a global network of researchers and practitioners. Within this network, they seek solutions that promote resource conservation and help tackle climate change. And, in the process, they and their contacts in Germany learn from one another on equal terms. 20 fellowship recipients from 17 countries started their one-year working residence in Germany at the beginning of 2015 as part of the second phase of the programme.

Conserving Natural Carbon Sinks/REDD+

"Well managed forests have tremendous potential to contribute to sustainable development and to a greener economy."

Food and Agriculture Organization of the United Nations (FAO) [12]

When forests and other carbon sinks such as moors and savannahs are destroyed, the carbon trapped in the biomass and soil is released into the atmosphere as the greenhouse gas CO_2. Around 11% of global greenhouse gas emissions are caused by deforestation and forest degradation.[13] According to the Global Forest Resources Assessment (FRA) published by the Food and Agriculture Organization of the United Nations (FAO), the average rate of deforestation was around 13 million hectares annually over the last decade.[14] Reasons for this include the expansion of agriculture and livestock production, mining, illegal logging, road construction and land development.

Forest protection has played a key role in international climate change mitigation policy for quite some time. The United Nations 2014 Climate Summit, held in New York in September 2014, marked a historically important milestone in this area. For the first time, more than 150 nations, companies, indigenous peoples and civil organisations endorsed the New York Declaration on Forests as a sign of their concrete commitment to worldwide forest conservation. One of the stated goals of the agreement is to halve annual forest loss by 2020, strive to end it completely a decade later in 2030 and restore at least 350 million hectares of forest by 2030. Just a few months after the UN Climate Summit, the 20th session of the Conference of the Parties to the UNFCCC in Lima (COP 20) adopted this agreement, which was also signed by what are known as the 'forestry countries' (Lima Challenge). In doing so, it set a further milestone in forest conservation, endorsing its importance in combatting climate change.

REDD (Reducing Emissions from Deforestation and Degradation) is an important mechanism that aims to mitigate climate change through forest conservation. The REDD+ mechanism goes beyond reducing deforestation and forest degradation, factoring in the positive climate effect of sustainable forest management and economic development in the areas affected. REDD+ is designed for implementation in three phases. This step-by-step process offers flexibility because the three phases can be implemented in succession or simultaneously, enabling countries with weaker institutions to also benefit from REDD+ payments.

During the first phase, known as the readiness phase, the foundation is laid for performance-based payments – that is payments linked to the agreed climate targets. This includes developing a national REDD+ strategy or a reference level for emissions from deforestation based on histor-

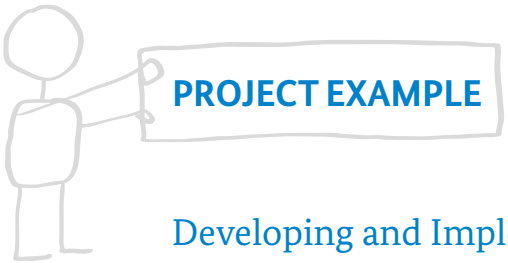
ical deforestation rates. This makes it possible to forecast changes in the size of the forest and draw comparisons with actual changes. The greenhouse gas emissions savings can then be calculated using the defined carbon content per hectare of forest.

During the second phase, countries put the agreed policies and measures into practice and test the mechanism for performance-based payments in pilot projects. Payment mechanisms are tested at local level for 23% of the IKI's REDD projects by carrying out pilot activities in forest conservation and sustainable forestry. These projects also provide important insight into how forests can be protected with as little conflict as possible and how the profits generated from performance-based payments can be equitably distributed to all groups involved. Countries that show progress in implementing institutional, organisational or legal reforms in the forestry sector are also eligible for performance-based payments.

In the third REDD+ phase, countries receive retroactive performance-based payments for verified emissions reductions. The payments are distributed to the stakeholders involved via profit distribution schemes.

In the future, the UNFCCC signatories will have to provide more detailed evidence that they have also effectively lowered greenhouse gas emissions in the forestry sector. MRV systems provide a framework for how the necessary data is collected, compiled and communicated. The core element of every MRV system is the greenhouse gas inventory. The net emissions from all sectors of a country – including forestry – are captured and made transparent in these inventories. A functioning MRV system in the land-use and forestry sector is one of the basic elements of a REDD+ mechanism. It is the only way for developing countries and emerging economies to prove that they have reduced their deforestation rates and are therefore eligible to receive performance-based payments.

The following section presents several IKI forest conservation/REDD+ projects, funded by the BMUB, and provides insight into the funding area.



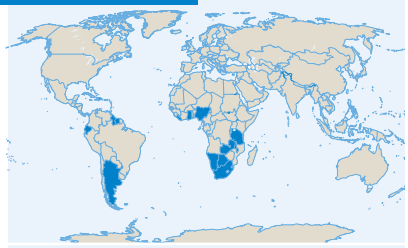
PROJECT EXAMPLE

Developing and Implementing Greenhouse Gas Inventories

The goal of the project was to develop the partners' capacity for greenhouse gas inventories in the forestry sector. In 14 partner countries in southern and western Africa, and Latin America, training was offered on how to create national inventories in accordance with uniform standards and report them to the UNFCC. The target group included specialists from ministries and universities as well as policymakers. Training focused in particular on challenges of MRV systems, IPCC criteria for reporting and methods for collecting and using forest inventory and remote sensing data as well as on the technical and institutional implementation of a national greenhouse gas inventory. Participants learned how to create greenhouse gas inventories for the forestry sector taking into account conditions specific to their country and how to use them in practice according to IPCC specifications.

The project created the foundation necessary for the partner countries to participate in the REDD+ scheme for performance-based payments. The participating countries enhanced their capacity to actively take part in discussions about methodological questions related to greenhouse gas inventories in the forestry sector within the international climate negotiations. Until now, the UNFCCC's pool of experts had lacked experts from developing countries who were able to assess national reports. As a result of the project, 34 training participants were added to the pool between 2012 and 2014. They play a key role in reviewing the requirements for performance-based REDD+ payments.

PROJECT DATA



Project title: Capacity Development for Greenhouse Gas Inventories in the Forestry Sector
Countries: Argentina, Botswana, Dominican Republic, Ecuador, Ghana, Guyana, Liberia, Malawi, Namibia, Nigeria, South Africa, Surinam, Tanzania, Zambia
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB grant: €3.4 million
Project duration: 2009 – 2014

Closing conference of the CD REDD II project, Rom 2014.

Participation as a Driver of Success

The REDD+ mechanism can also affect ownership structures and how people use land. For implementation to be successful, the different interests of all affected stakeholders and sections of the population therefore have to be included in all phases of the REDD+ mechanism, including subsequent benefit sharing.

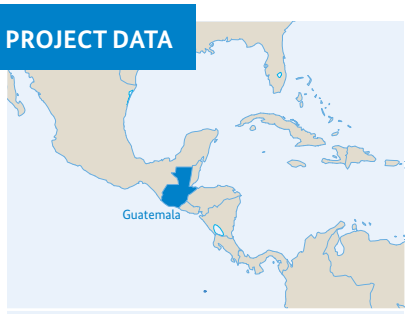
To ensure that local residents and indigenous communities are involved in implementing the REDD+ activities, IKI-funded projects support countries in establishing systems that make information on compliance with environmental and social safeguards accessible to the public. The concept of free, prior and informed consent (FPIC), which guarantees indigenous groups the right to participate in all administrative and legislative decisions that affect their territories, plays an important role in preparing REDD+ pilot projects.

When REDD+ concepts are implemented, the local population are integrated into selected forms of forest protection, management and use, providing them with additional and alternative sources of income. Once performance-based payments are made, the administrative body has to make sure that the REDD+ funds are fairly distributed to different stakeholders (benefit sharing) and an acceptable balance found between forest conservation and sustainable forest management. These kinds of payments can either be distributed to stakeholders through a nationally administered REDD+ fund or channelled directly to individual REDD+ projects.

Participation, however, also means that government agencies are involved in developing and implementing an international REDD+ mechanism under the UNFCCC. But many emerging and developing countries lack the administrative and technical capacity to actively participate in the processes. This is where the IKI comes in: training is provided to in-country experts who later help shape and implement the international REDD+ process.

PROJECT EXAMPLE

PROJECT DATA



Project title: Preparation of a REDD Project for Tropical Forest Protection and Sustainable Community Development in the Sierra del Lacandón National Park in Guatemala
Country: Guatemala
Implementing organisation: OroVerde – The Tropical Forest Foundation
BMUB grant: €0.9 million
Project duration: 2011 – 2014

Tropical Forest Protection in Guatemala

The Sierra del Lacandón National Park forms the core zone of the Maya en Petén Biosphere Reserve in northern Guatemala. Its tropical forest has one of the most biodiverse and, at the same time, one of the most endangered ecosystems in the world due to fires, illegal logging, encroaching settlements and cattle ranching.

Concrete conservation pilot projects have been carried out in collaboration with the authorities and ten local communities to generate alternative sources of income from the forest and develop effective fire protection. In return, the communities have pledged to use the forest sustainably and protect the national park. A new bonus scheme compensated them for their efforts with cash payments, materials, for example seedlings or tools, and technical advice. Through this support, four communities have restored or conserved a total of 624 hectares of forest with enrichment plantings. Species that have become rare, for example the breadnut tree, have been planted in this process. The project has also collaborated with the National Council of Protected Areas (CONAP) to clarify ambiguous land use rights of individual communities, which has created an additional motivation to invest in the long-term preservation of natural resources.

The pilot communities and CONAP have also been advised on how performance-based payments (REDD+ Phase 3) can be generated for carbon reduction in forests and shared among the stakeholders. The aim here is to provide proportional and sustainable financing for forest conservation measures over the long run. The carbon stored in the forest and additionally removed from the atmosphere through reforestation serves as a unit of measurement that can be used to quantify the project's positive impact on climate.

To ensure that protection measures can be planned and results evaluated more effectively, a biodiversity monitoring system for the park was also developed as part of the project. This system monitors, among other things, changes in selected umbrella species (species that assure the existence of other species), which allow conclusions to be drawn about the state of the forest – a system that is serving as a model for other areas in the country and region.

Rebeca Escobar Méndez is a biologist and works for the organisation **Fundación Defensores de la Naturaleza** (FDN) in Guatemala. She works in the **Sierra del Lacandón** National Park in biological research and monitoring of nature conservation activities.

What is so special about the tropical rainforest in the Sierra del Lacandón National Park?

Escobar: It is truly one of the most important and largest tropical rainforests in the world. The Sierra del Lacandón National Park, together with the entire northern part of Guatemala, forms an enormous contiguous forest, which is home to a tremendously diverse range of plant and animal species. This diversity includes timber as well as medicinal and other useful plants like the breadnut tree, which has fruit that can be processed into a variety of foodstuffs such as bread, cookies and soft drinks.

What has the project accomplished in this area?

Knowledge about the significance of this plant had been virtually lost. Our project has revived this knowledge base, and many women are now processing breadnuts into flour and even exporting it to other countries.

Why is the species-rich tropical forest in northern Guatemala so endangered?

Escobar: The population in Guatemala is experiencing rapid growth and needs more and more room to live. Large parts of the countryside are privately owned, which means there is not enough farmland available for everyone. The forest ecosystem is under threat due to people settling in the protected areas.

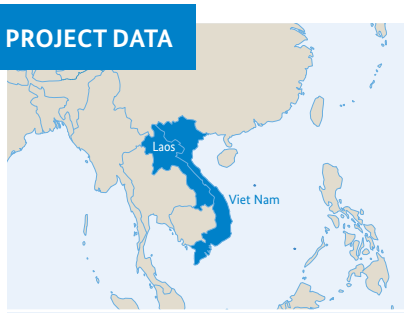
What role does local participation play in the project?

Escobar: We are trying to convince the communities living in the protected area that they are an important part of the forest. That is why our project is named Lacandón – Forests for Life, because by protecting the environment, we are also protecting the people. We are committed to helping the residents stay in the protected zones and enabling them to pursue sustainable farming. Most of the families are very poor and have a large number of children that need to be fed. We explain to the small-scale farmers, for example, that it is better to avoid using slash-and-burn techniques, since fire can also pose a risk to people. Also, if the forests disappear, they will no longer have firewood for cooking, etc. We try to inform people about the disadvantages of monocultures and, at the same time, encourage them to plant useful trees rather than corn: the breadnut tree or the pepper plant, other fruit trees, or even cedars and mahogany for use in constructing houses.

REDD training, Laos.

PROJECT EXAMPLE

PROJECT DATA

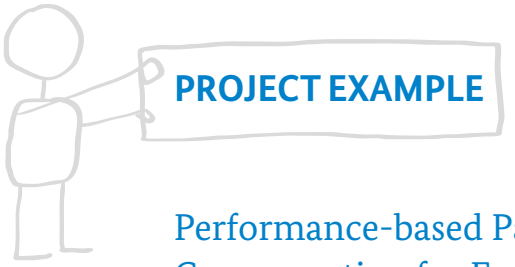


Project title: Delivering Environmental and Social Co-Benefits from REDD+ in Southeast Asia
Countries: Laos, Viet Nam
Implementing organisation: SNV – Netherlands Development Organisation
BMUB grant: €2.4 million
Project duration: 2010 – 2016

Taking Social Development and Biodiversity into account for REDD+

The IKI project in Viet Nam and Laos combines climate change mitigation, sustainable social development and biodiversity. The project provides training, informational materials and advisory services to support the governments in incorporating co-benefits and safeguards when introducing national REDD+ strategies. The project collects data about the destruction of threatened forests and incorporates it into geographic information systems. The resulting maps and more in-depth information, for example, on landscape forms, vegetation or residential areas serve the partner governments as a basis for decision-making and planning.

The project works closely with the local population. At the request of the Vietnamese Government, approaches used in the project will be applied in other regions in a UN-REDD programme financed by Norway.



PROJECT EXAMPLE

Performance-based Payments – Incentive and Compensation for Forest Protection in Acre

The owners of smaller forest and land areas often do not have any formal rights to use the land they farm which prevents them from benefiting from performance-based payments. As a result, consideration is being given to how these population groups could participate better in the REDD+ mechanism either through programmes, by granting land titles or as a result of indirect impacts. In recent years, the Brazilian Government has considerably stepped up its activities to protect and sustainably manage tropical rainforests. Particularly in the state of Acre, it has doubled the number of conservation areas and nature reserves – they now cover 46% of the state's area. Revenue from timber and agriculture has fallen accordingly, which is why Acre has a keen interest in performance-based payment mechanisms.

In 2013, the rate of deforestation in Acre declined by more than one-third. This is a significant drop from the previous year and counter to the general trend in Brazil's Amazon region. Based on this data, BMUB and BMZ retroactively pay into a fund for avoided deforestation. KfW administers this fund. In December 2013, payments were made from IKI funds for emissions reductions totalling 2.47 million tonnes of CO_{2eq}. In addition, the state of Acre will retire the same number of carbon credits so that they can no longer be traded on the carbon market.

The fund finances measures to protect and sustainably manage the forest, for example the introduction of methods for improved pasture management or honey production in the Chico Mendes and Juruá extractive reserves, which create new sources of income for the local communities. At least 70% of the funds are channelled to local residents who are directly or indirectly dependent on the continued existence of the forest and will also ensure that the forest is protected in the future.

The Acre success story can serve as a model for other states in Brazil and other countries with tropical forests. The experience gained from performance-based REDD+ payments also provides valuable information that can be used to refine the REDD+ mechanism in the international climate negotiations.

PROJECT DATA

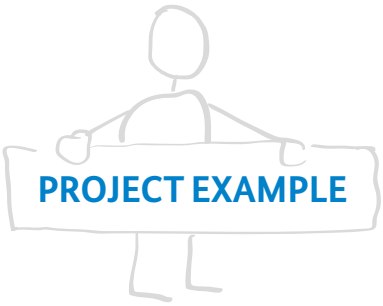
Project title: REDD for Early Movers – Acre
Country: Brazil
Implementing organisation: KfW Development Bank
BMUB grant: €9 million
Duration: 2013 – 2015

Forest and Landscape Restoration

Forest and landscape restoration (FLR) plays an important role in climate change mitigation and biodiversity conservation and in adapting to the impacts of climate change. Restoring ecosystems that have already been destroyed is possible but much more difficult and costly than protecting them in the first place. The IKI therefore supports projects that evaluate the national potential for FLR measures in many countries. It makes an important contribution to international processes, such as the REDD+ mechanism under the UN Framework Convention on Climate Change and Aichi Targets 14 and 15 of the Convention on Biological Diversity (CBD). Working with its partners, strategies adapted to regional conditions are developed that create the basis for restoration activities. The pilot measures are then conducted to test different restoration methods for landscapes and forests in the projects.

Restored wetland, Belarus.

In September 2011, BMUB and its partners, the World Resources Institute (WRI) and the International Union for Conservation of Nature (IUCN), organised a conference of ministers to adopt extensive measures to recover deforested areas, degraded forests and landscapes. At this conference, known as the Bonn Challenge, the participating countries which are home to tropical forests set the ambitious target of restoring 150 million hectares of forest landscapes by 2020. In March 2015, BMUB initiated the follow-up conference, the Bonn Challenge 2.0, and was an important sponsor. So far, 14 countries (USA, Ethiopia, DR Congo, Uganda, Rwanda, Guatemala, El Salvador, Costa Rica, Brazil, Colombia, Mexico, Peru, Ecuador and Chile) have announced their intention to regenerate a total of 63.5 million hectares of forest. Restoring 150 million hectares of forest and landscapes could potentially sequester one gigatonne of CO_2 per year from the atmosphere.[15] As a result, it is particularly interesting for countries with large degraded areas to pursue targets to recover forest ecosystems under REDD+ and formulate these goals in their intended nationally determined contributions (INDCs).



Global Movement for more Forests

PROJECT DATA

Project title: Forest and Landscape Restoration in Key Countries
Countries: Brazil, Indonesia, Rwanda
Implementing organisation: World Resources Institute (WRI), International Union for Conservation of Nature (IUCN)
BMUB grant: €3 million
Project duration: 2013 – 2017

Many countries have little knowledge about the different ways to restore landscapes and forests. However, developing, emerging and transition countries in particular have great potential for restoration measures. The project works closely with the Global Partnership on Forest Landscape Restoration (GPFLR). It supported the formation of the Global Restoration Council in restoring several million hectares of forests and improving ecosystem services. A high-level committee motivates and informs policymakers about the benefits of large-scale implementation of FLR measures.

One important outcome of the project in this respect was the development of a globally applicable method to restore forests called ROAM (Restoration Opportunities Assessment Methodology). Using this method, experts can carefully plan restoration activities and tailor them to local needs. ROAM helps to make decisions about how to efficiently implement the planned measures, for example, by identifying suitable areas for restoring forest and analysing the costs and benefits. The method was used by the project in Brazil and Rwanda and is also currently being tested by IUCN and WRI in other countries. Manuals are now available in four languages, and the method is being further disseminated through the project and the GPFLR knowledge-sharing platform.

Suitable areas for reforestation have been identified in Brazil and Rwanda. The tool has proven successful as a suitable starting point for national restoration planning. The project also brings together different stakeholders from politics, business and civil society to develop restoration strategies tailored to meet regional and local needs. In Brazil, forest experts used the ROAM method to advise the Ministry of the Environment in developing a national strategy (PLANAVEG) to restore native vegetation. More than 70 organisations from different areas of society and regions of Brazil have participated in the process.

PROJECT EXAMPLE

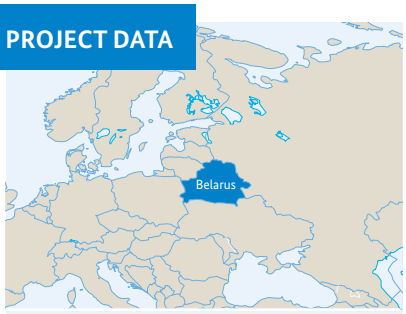
Rewetting Programme for Moorland Revitalisation

Wetlands are home to a variety of rare plants and animals and are important carbon reservoirs. In total, they store between 10-20% of the entire carbon that exists on the planet. Globally, however, approximately 64% of the original wetlands have already disappeared or been destroyed,[16] and in Europe, this figure is as high as approximately 95%.[17] To preserve this ecosystem, existing areas need to be protected or drained areas rewetted. But preserving and managing areas that have been returned to their natural state often entails considerable costs, and many countries lack both experience with and funding for these kinds of measures.

The IKI project entitled Restoring Peatlands in Belarus aimed to rewet more than 17,000 hectares or drained peatlands. The restored moorlands prevent emissions of around 15,000 tonnes of CO_{2eq} annually. Fauna and flora species that had disappeared are returning again and water quality has improved. The lower risk of fire has increased the local population's interest in pursuing further environmental protection measures.

To estimate the amount of potential carbon sequestration, the project used a model for rewetting degraded peatland types for the first time outside of Germany. Based on these findings, a new international peatland carbon standard was developed as part of the project. This standard makes it possible to measure the amount of carbon emissions removed from the atmosphere and was officially accepted as the global Verified Carbon Standard (VCS). The recognition of this measurement method establishes the basis for generating emissions credits and/or allowances globally in the future by protecting moorlands and then trading them on the voluntary carbon market. These earnings can in turn be invested in preserving the wetlands over the long run. The project also provided advice on how to overhaul the country's legislation to enable Belarus to take part in international emissions trading schemes. At the climate conference in Durban, the EU Commission classified it as one of the world's five most important ecosystem-based mitigation projects. Rewetting degraded peatlands can now be credited towards emissions reduction under the Kyoto Protocol thanks to the project findings.

PROJECT DATA



Project title: Restoring Peatlands
Country: Belarus
Implementing organisation: KfW Development Bank, in cooperation with the Michael Succow Foundation, APB Birdlife Belarus and UNDP
BMUB grant: €3.2 million
Project duration: 2008 – 2012

Conserving Biodiversity

'Human dependence on ecosystem services and particularly their role as a lifeline for many poor households needs to be more fully integrated into policy.'

TEEB study[18]

The extinction of many flora and fauna species and the degradation of natural habitats are signs of global environmental changes. Around the world, it is estimated that thousand times more species become extinct each year because of human influences than they would under natural circumstances. The International Union for Conservation of Nature's Red List of Threatened Species[19] currently includes 74,106 animal species of which 4,574 are critically endangered.

At the 10th meeting of the Conference of the Parties to the UN Convention on Biological Diversity, which was held in Nagoya, Japan, in October 2010, the signatory states agreed to the Strategic Plan for Biodiversity 2011-2020. This Plan sets concrete medium-term and long-term goals and priorities for international biodiversity conservation and provides the framework for CBD implementation in the years to come. What are known as the 20 Aichi Targets are part of the Strategic Plan for Biodiversity.

Aichi Target 1	By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.
Aichi Target 2	By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
Aichi Target 3	By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.
Aichi Target 4	By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.
Aichi Target 5	By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Aichi Target 6	By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.
Aichi Target 7	By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
Aichi Target 8	By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
Aichi Target 9	By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
Aichi Target 10	By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.
Aichi Target 11	By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
Aichi Target 12	By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
Aichi Target 13	By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.
Aichi Target 14	By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.
Aichi Target 15	By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.
Aichi Target 16	By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Aichi Target 17	By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.
Aichi Target 18	By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.
Aichi Target 19	By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.
Aichi Target 20	By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

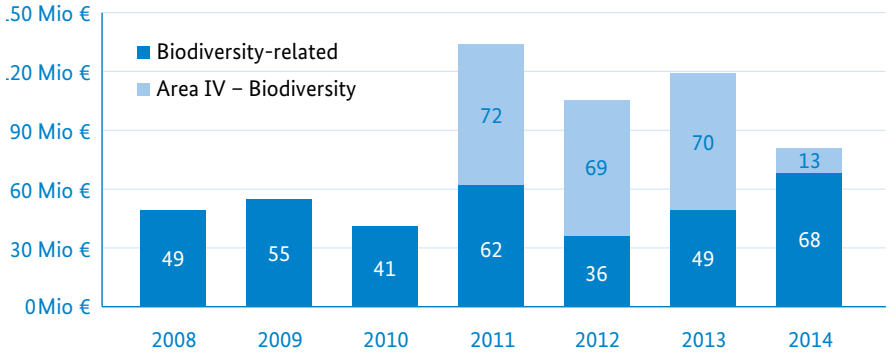
The fourth Biodiversity Global Outlook report (GBO-4)[20] presented at the 12th meeting of the Conference of the Parties to the CBD in October 2014 in South Korea paints a very mixed picture of implementation of the Strategic Plan for Biodiversity so far. Even though considerable progress has already been made, overall the report concludes that current efforts are insufficient to meet the Aichi targets. Particularly in the area of marine protection, much more action is needed to stop the decline in biodiversity in marine and coastal areas and counteract restrictions in the provision of ecosystem services.

Federal Chancellor Angela Merkel had already pledged an additional €500 million per year starting in 2013 at the 9th meeting of the Conference of the Parties to the CBD in Bonn. With the fulfilment of this commitment, Germany is leading the way in international biodiversity conservation. Also in the discussion of the post-2015 agenda for sustainable development, BMUB is working to ensure that biodiversity becomes a fundamental component of the new Sustainable Development Goals (SDGs).

The IKI is providing targeted support for implementation of the Strategic Plan for Biodiversity and helping to achieve the Aichi targets. At the same time, a stronger link is being established between issues relevant to biodiversity, forestry and climate. 60 projects are dedicated to implementing selected goals set forth in the Strategic Plan for Biodiversity. Another

120 projects in the areas of adaptation and REDD+ are closely linked to biodiversity and also support the goals of the CBD. The following section presents several IKI biodiversity projects funded by BMUB and provides insight into the funding area.

IKI projects relevant to biodiversity *
Funding volume in EUR millions according to counting method by commitment



* The figure shows the total annual volume of IKI projects relevant to biodiversity. These include projects from two funding areas – conserving natural carbon sinks/REDD+ and adapting to the impact of climate change (mainly ecosystem-based adaptation) – that also are generally relevant to the climate and biodiversity as well as all projects from the biodiversity funding area.

Source: BMUB

Integrating Biodiversity into Society, Policy and Business

Sound evidence and well-founded background information are needed to fully communicate the importance of biodiversity. This includes clear core messages that reach all sections of the population: in schools, in the media or through representatives of civil society, politics, academia and the scientific community.

The CBD's Communication, Education and Public Awareness (CEPA) programme links biodiversity issues in politics and science with social and economic reality. Exhibitions, films, brochures and events are used to convey the core messages. One core message is that individuals have to be aware of the impact their consumption patterns have on whether biodiversity is lost or conserved. In a continuous learning process that puts education and communication centre stage, CEPA aims to create a bridge between society and decision-makers.

PROJECT EXAMPLE

Films about Biodiversity Conservation Projects

Scientific estimates suggest that several thousand species are lost each year due to anthropogenic influences, which has serious consequences for human beings: food, water supply and medical care depend to a large extent on functioning ecosystems, which in turn rely on species diversity.

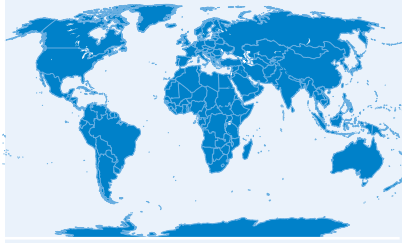
Global Nature is a series of TV reports made by Deutsche Welle (DW) that gives vivid insight into exemplary measures for protecting biodiversity and species in emerging and developing countries. From 2009 to the end of 2013, BMUB funded a multimedia series about climate protection projects entitled *Global Ideas*. The *Global Ideas* and *Global Nature* reports focus on innovative projects that make a special contribution to protecting marine and terrestrial biodiversity.

The reports reach an extremely broad audience: in addition to its worldwide satellite TV broadcasts, DW has a large network of more than 2,400 partner stations that include the reports in their programming. The reports are accessible via a multimedia DW platform[21] in five languages (German, English, Spanish, Arabic and Chinese) at any time, along with background articles, photo galleries, audio-visual shows and information on key issues. The Goethe Institute and the Federal Agency for Civic Education (Bundeszentrale für politische Bildung) also disseminate the *Global Nature* reports, and a growing number of social media fans have access to the reports via Twitter and Facebook. Schools and educational institutions around the world can use DVDs with these reports as teaching resources. Since 2013, 120 schools in 36 countries have already taken advantage of this option.

The reports reach very diverse and geographically widespread social groups and multipliers, raise awareness about the importance of biodiversity and provide information about practical approaches to its conservation.

Reporter during coverage for "Global Ideas".

PROJECT DATA

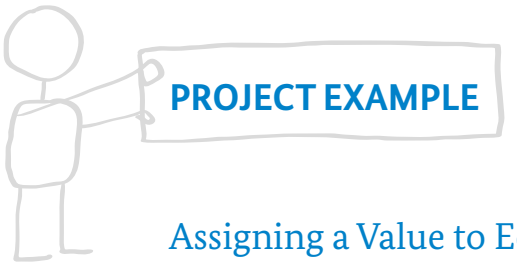


Project title: Global Nature – Protecting the Earth's Riches
Country: Global
Implementing organisation: Deutsche Welle broadcaster
BMUB grant: €9 million (including Global Ideas)
Project duration: 2009 – 2016 (total for both phases)

Economics of Ecosystems and Biodiversity

Little attention has been paid to biodiversity in the development planning of many partner countries to date. But this is set to change: the value of biodiversity for the economy and society will be incorporated into national and local development strategies in the future. To ensure that a broad cross-section of the population benefits from economic development over the long run, the aim is to integrate the value of biodiversity into the relevant planning processes right from the start by recording and assessing ecosystem services. An economic perspective helps to make the values of ecosystems and their services visible in the political process. In 2007, BMUB and the EU Commission initiated this approach in conjunction with UNEP. The TEEB Initiative (The Economics of Ecosystems and Biodiversity) makes the socio-economic and cultural values of biodiversity more transparent. TEEB identifies the costs caused by the loss of biodiversity.

Since the TEEB studies were published in 2010, the approach has been implemented at many national, regional and local levels. Integrating and accounting for economic values increasingly demonstrates that public and private investment in natural capital makes good economic sense. Concrete figures help policymakers in different areas find a common language for dialogue. Since the TEEB Initiative was launched, nature conservation and sustainable management have also carried more weight in the agricultural, forestry and tourism sectors. TEEB contributes in particular to achieving Aichi Targets 1-3 and 20.



PROJECT EXAMPLE

Assigning a Value to Ecosystem Services

The Brazilian Government plans to integrate biodiversity and ecosystem services more into its programmes in the future. Brazil was one of the first countries in the world to launch a national TEEB process; managed jointly by the Brazilian Ministry of Environment and the Ministry of Finance. In the international context, this coherent coordination between ministries with private sector involvement to integrate natural capital into planning and development processes is unique. The IKI project is supporting the Brazilian Government in its efforts to implement the TEEB agenda.

The IKI project aims to generate practical experience and knowledge, to provide examples of implementation to the partners and to stimulate structured dialogue between various government institutions and private companies. At local level, payment mechanisms for ecosystem services are being tested, initially in the Amazon rainforest and the Cerrado savannah region.[22] In these regions, for example, farmers receive financial compensation from the government if they protect forests by managing them sustainably. The TEEB method is used to calculate the payment amount.

Lessons learned in pilot measures are shared with national and regional institutions and decision-makers. They are taken into account in upcoming forestry or regional planning processes. Technical staff from the state environmental ministries of Bahia, Tocantins, Goiás and Amazonas are also taking part in the training to learn about evaluation methods for ecosystem services and how to analyse the environmental impact of investment decisions.

To ensure that the value of ecosystem services is reflected more in company policies and private investment decisions, a strategic partnership was forged with the Research Centre for Sustainability, the Getúlio Vargas Foundation (FGVC). Around 20 companies from the agriculture, mining and transport sectors are involved. Guidelines on how to deal with the effects of company activities on biodiversity and ecosystem services are developed here. The project also advises the Biodiversity and Forests Network of the National Confederation of Brazilian Industry (Confederação Nacional da Indústria – CNI) on developing training programmes that focus on ecosystem services and TEEB for its regional associations. Sustainability reports are being created for two CNI member companies to serve as examples for others to follow. Experts from Germany and Brazil are also engaged in dialogue on how to mobilise resources for biodiversity conservation.

Thanks to these measures, awareness for the value of biodiversity has increased significantly among policymakers and business decision-makers in Brazil. Most were previously unaware of the key role their country's natural capital plays. This project contributes to reaching Aichi Target 2 by integrating the values of biodiversity into strategies and planning processes.

PROJECT DATA

Project title: Conserving Biodiversity by Integrating Ecosystem Services into Public Programmes and Economic Activities
Country: Brazil
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB grant: €3.5 million
Project duration: 2012 – 2016

Protecting Land and Water

The destruction and overuse of natural resources doesn't stop at marine ecosystems. Use is so intensive that they hardly have a chance to regenerate. 75% of all fish stocks are now considered almost depleted.

One way to successfully counteract this threat is to expand sustainably managed systems of protected areas. This involves improving existing protected areas and connecting them to one another, while also designating new protected areas. These areas protect biodiversity from being adversely affected by unsustainable economic and industrial interests. They thus strengthen the resilience of natural habitats to respond to negative anthropogenic and climate impacts and ecosystem degradation. What are known as biocorridors, a geographic link between several protected areas, also enhance the effect of the individual protected areas. These links create migration corridors that are extremely important to the survival of many animal species, for example species that migrate during the year when the seasons change or are threatened by climate change in isolated habitats. Aichi Target 11 states that by 2020, at least 17% of terrestrial and inland water, and 10% of coastal and marine areas are conserved.

With a view to the enormous challenges in marine protection, one particular international focus is identifying what are known as ecologically or biologically significant marine areas or EBSAs, and expanding marine protected areas. More than 200 ecologically or biologically significant marine areas have been recognised by the signatory states.

BMUB attaches great importance to supporting partner governments in developing and implementing an appropriate policy and legal framework for terrestrial and marine protected areas. Another priority is establishing effective authorities to administer protected areas. IKI projects also provide support for identifying suitable and relevant areas for establishing protected areas, for creating and implementing management plans, for encouraging active participation of the population with income-generating measures, for clarifying and securing access and use rights, and for developing monitoring and sustainable financing concepts.

PROJECT EXAMPLE

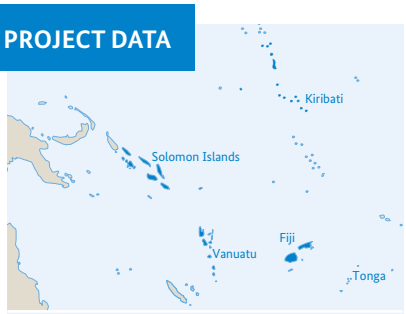
Protecting Species Diversity in the South Pacific

The IKI project works with Fiji, the Solomon Islands and Vanuatu, three mountainous volcanic islands, as well as with Kiribati and Tonga, two flat island atolls. The exclusive economic zones of these island nations cover an area of 7.5 million square kilometres – 21 times the size of Germany. The natural resources in the marine and coastal areas play a vital role in the economies of the Pacific island states and provide the basis for the people's livelihoods. The project aims to contribute to conserving the biodiversity of these marine areas in the South Pacific over the long run by supporting larger and more effectively managed protected areas and optimised national planning processes.

It also seeks to emphasise the essential, but often inadequately visible, value of marine ecosystem services. To achieve these aims, the project supports the economic evaluation of these ecosystem services and the incorporation of the results into the national development plans of the five partner countries. The calculated monetary economic value of marine and coastal ecosystems is seen in terms of a profit and loss statement. The project makes use of globally accepted methods and approaches (TEEB) for these calculations and adapts them to the local context in the Pacific island states. Principles are also applied that were recommended in a report prepared by a committee of the German Bundestag assessing the effects of technology and calculating the monetary value of biodiversity ('Technikfolgenabschätzung (TA) Inwertsetzung von Biodiversität')[23].

Scientific exploration: travelling routes of fish larvae.

PROJECT DATA



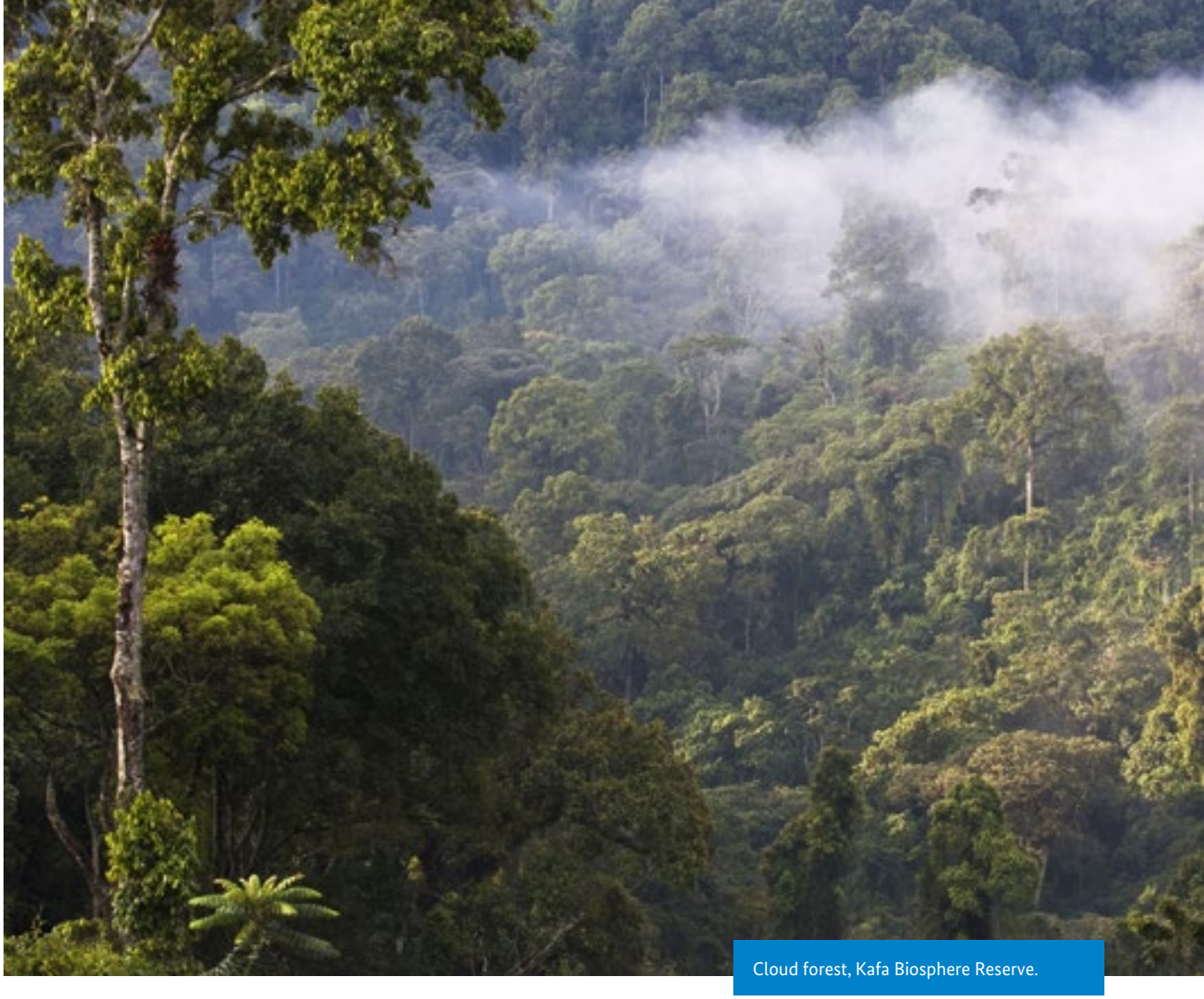
Project title: Marine and Coastal Biodiversity Management in the Pacific Island States and Atolls
Countries: Fiji, Kiribati, Solomon Islands, Tonga, Vanuatu
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB grant: €8.1 million
Project duration: 2013 – 2018

Previous studies on the economic evaluation of marine ecosystem services have emphasised the comparatively high importance of small-scale coastal fishing in guaranteeing food and income. In Fiji, this is currently helping to strengthen the relevant support structures as part of the reorganisation of the national fishing authority.

The project is supporting the national authorities in recording and digitalising marine resources to improve spatial planning. One focus of these activities is on rolling out affordable or freely available geographic information systems (GIS) to process data. The project marks a key milestone for integrated and transnational marine resource evaluation and regional planning. One particularly innovative measure links and expands the marine protected areas, which had only been within national borders until now, to create extensive corridors. This considerably increases the probability that an effective contribution will be made to preserving species diversity compared to the past standard practice of designating individual protected areas. The project is also breaking new ground by incorporating the Convention on Biological Diversity's process for EBSAs into national marine spatial planning. At the same time, experience with the effectiveness of locally managed marine areas is being collected and documented simultaneously in all 14 provinces of Fiji from the bottom up.

Support from BMUB is strengthening the technical capacity of the Secretariat of the Regional Environmental Programme (SPREP). The project is thus responding to the growing demand from regional decision-makers to be able to compare and weigh the social and environmental consequences of using different marine resources more effectively, thereby ensuring sustainable development with minimal resource use.

For the partner countries, the process of implementing the Strategic Plan for Biodiversity 2011 – 2020 is facilitated because the project goals are aligned with the Aichi targets, particularly Aichi Target 11.



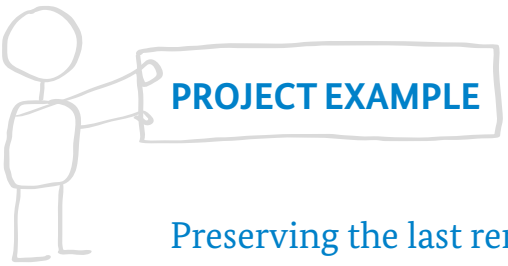
Cloud forest, Kafa Biosphere Reserve.

Sustainable Use of Ecosystems

The main factors responsible for the global loss of biodiversity include the destruction of habitats, overuse of natural resources, environmental pollution and climate change. The CBD Strategic Plan calls for the sustainable use of ecosystems to address these factors. This is particularly urgent in the agriculture, forestry and fishing sectors because sustainable use plays a key role in biodiversity conservation. The poor rural population is especially dependent on intact ecosystems and their services. Ecosystem services account for between 50 and 90% of the livelihoods of the very poor in developing countries and emerging economies.[24] The increased demand for food from the estimated population of nine billion people by 2050 makes the issue of sustainable management even more pressing.

A number of IKI projects with relevance for biodiversity therefore support measures that pursue the goal of sustainable management as well as biodiversity conservation, such as sustainable fishing and aquaculture or sustainable forest management.

Rare photography of lioness, cloud forest, Kafa Biosphere Reserve.



PROJECT EXAMPLE

Preserving the last remaining Cloud Forests

Ethiopia is one of the most biodiverse countries in the world and many of its ecosystems are still intact. At the same time, it is one of the poorest countries in the world and has set itself the goal of achieving the status of a middle-income country by 2025. The Ethiopian Government is also aware of its global responsibility and would like to be a pioneer for sustainable development by implementing its Climate Resilient Green Economy Strategy.[25]

With two of the IKI-funded projects, BMUB has been supporting implementation of the Ethiopian Green Economy Strategy in the Kafa region in the southwest of the country since 2009., Kafa, one of the 34 biodiversity hotspots in the world, is not only home to one of the last natural forest regions in Ethiopia, it also has expansive wetlands and floodplains, making it an important carbon and moisture reservoir. The area, which was designated a United Nations Educational, Scientific and Cultural Organization (UNESCO) biosphere reserve in 2010 with German support, is the origin and centre of Arabica coffee and thus a natural gene bank of global significance.

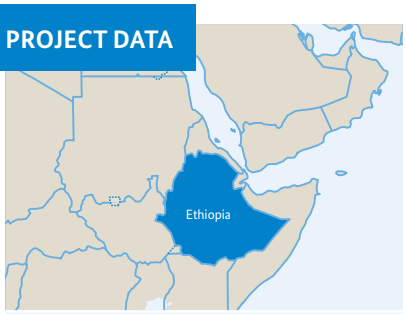
The local population has always lived from agriculture, the sale of wild coffee and the use of other natural resources such as fuel and building material, medicinal plants, spices and honey. But rapid population growth, poverty and the gradual spread of industrial farming are putting more and more pressure on the ecosystems. A 'business as usual' scenario would result in the complete disappearance of the forests in this biosphere reserve within the next 100 years.

The IKI project is working to set an example by implementing the country's Climate Resilient Green Economy strategy following an integrated approach that links climate change mitigation and biodiversity protection with regional development and involves the local communities. The involvement of the population in local management and the resulting improvement in quality of life for the people living there are essential for ensuring the project's acceptance and ultimately its success. Suitable measures for reflecting the value of biodiversity include reforestation, establishing a monitoring system and providing training for rangers as well as development programmes for handicrafts, ecotourism and regional products. Regional tourism was encouraged by building a model lodge and an open-air museum and creating various discovery trails. In addition to Arabica coffee, other regional products are also being promoted such as traditional beeswax products and medicinal plants. Finally, energy-efficient ovens, which have already been installed in more than 11,000 households, have created at least 50 new jobs locally. The ovens lower wood consumption and improve the lives and health of women and children.

So far, around 7,700 community members have been organised into forest user groups that are involved and trained in the management of 16 forest areas covering a total of almost 12,000 hectares. To restore degraded forest areas, the project is setting up nurseries where seedlings for native tree species are being grown. They will be used to reforest and renature around 1,500 hectares.

The project has already generated a lot of attention at both national and international level. For example, it has received awards from UNESCO and FAO as a model of excellence for sustainable climate mitigation and biodiversity conservation. The project initiated bilateral Ethiopian-German collaboration in the green sector. For the Ethiopian Government, the project is a pilot example of the implementation of its Climate Resilient Green Economy strategy.

PROJECT DATA



Project title: Community-Based Strategies for the Protection of Wild Coffee's Region of Origin
Country: Ethiopia
Implementing organisation: Naturschutzbund Deutschland e.V. (NABU)
BMUB grant: €5.6 million
Project duration: 2009 – 2017

Planning and Acquiring Knowledge Together

Important components in implementing the Strategic Plan for Biodiversity and meeting the Aichi Targets are developing national biodiversity strategies and action plans (NBSAPs) and acquiring technical expertise. Involving indigenous and local communities is not only of vital importance when planning and implementing the strategies, their traditional knowledge also needs to be recognised and incorporated to protect and sustainably manage biodiversity. For biodiversity conservation to be effective, all of the stakeholders involved must be able to carry out their tasks responsibly. To this end, legal frameworks and effective institutions need to be created and the necessary knowledge acquired by everyone involved.

The IKI attaches special importance to capacity building and training for local people, to participatory management approaches and to integrated educational opportunities. Particularly relevant in this context are protected areas that are either fully or partially managed by local communities. What are known as ICCAs (indigenous and community conserved areas) are one example of community managed protected areas. These protected areas, which are self-governed by indigenous people and local communities, have significant cultural and spiritual importance beyond their ecosystem services. The IKI supports different ICCAs through the Global Environment Facility's Small Grants Programme[26] with a total of €12 million.

PROJECT EXAMPLE

Managing Protected Areas

Peru ranks as one of the countries with the greatest diversity of species in the world. With nearly 700,000 square kilometres, it has the second-largest share of the Amazon region and thus the fourth-largest contiguous tropical rainforest in the world. This rainforest is now highly threatened as a result of the encroachment of agriculture and illegal logging. To effectively protect the Amazon region over the long run, protected areas in Peru are co-managed by government authorities and local communities. This concept has been ineffective to date due to a lack of adequate instruments and resources.

Indigenous community, Manu river, tropical rainforest, Peru.

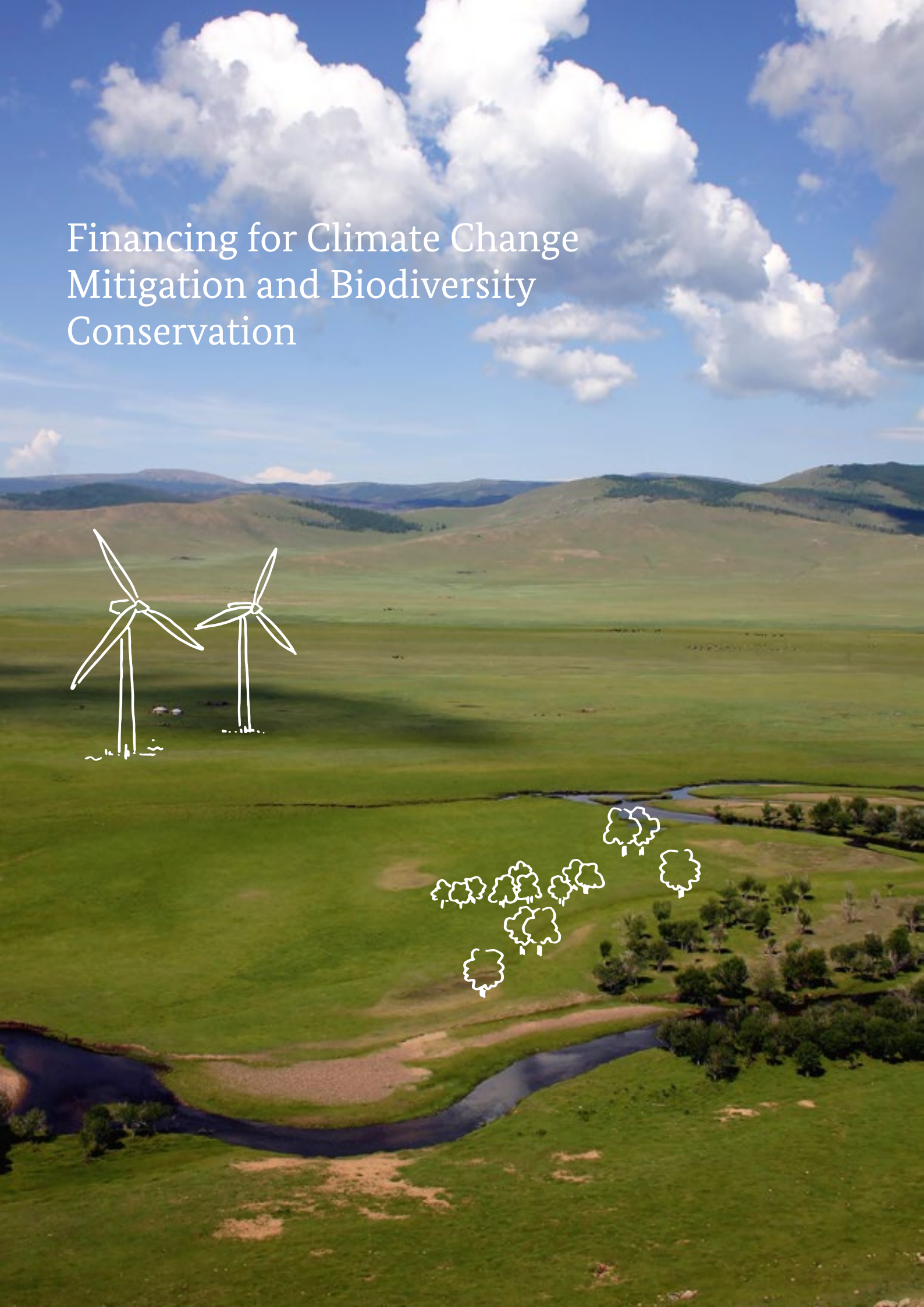
The IKI project is working with the Peruvian agency responsible for protected natural areas (Servicio Nacional de Áreas Naturales Protegidas por el Estado (SERNANP) to improve the legal and socio-economic conditions for successful co-management of protected areas in five nature reserves on a total area of around 15,000 square kilometres. The project works at different levels to ensure that the co-management approach is successfully established. One level involves training the regional project partners in legal and administrative issues, including SERNANP's local staff and the official representatives of the indigenous population (ECA – Ejecutores de Contrato de Administración con el Estado) in the buffer zones of the protected areas. The local community is also receiving support for sustainable management of forest products to generate additional income. So far, 20 villages have already generated approximately US$250,000 in additional income by processing and selling rubber, timber, achiote,[27] the natural remedy copaiba[28] and handicrafts. Biodiversity competitions and workshops have also been held in schools in the protected area buffer zones, involving school authorities and around 3,300 students and teachers. In response, regional and local school authorities have agreed to formally establish this approach in schools.

Other activities to strengthen the protected areas are currently being carried out with the Peruvian partners: establishing a participatory boundary marker between communal reserve and village boundaries, biodiversity monitoring and local monitoring to combat illegal logging.

PROJECT DATA

Project title: Co-Management of the Amazon in Peru
Country: Peru
Implementing organisation: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMUB grant: €5 million
Project duration: 2013 – 2017

Financing for Climate Change Mitigation and Biodiversity Conservation



"New finance for development and climate must be delivered transparently. Funding mechanisms need to prioritize low carbon, climate resilient and environmentally sound development solutions that respect human rights."

Marco Lambertini[30]

Mitigation measures, the preservation of natural carbon reservoirs, adaptation to the impacts of climate change and measures to conserve biodiversity all require financial resources – to build solar power systems and wind turbines, for energy-efficient building refurbishment, to expand public transport systems, for reforestation, to strengthen flood protection measures, to set up protected areas and much more. Developing countries in particular face enormous challenges in mobilising these resources and using funding for the necessary measures.

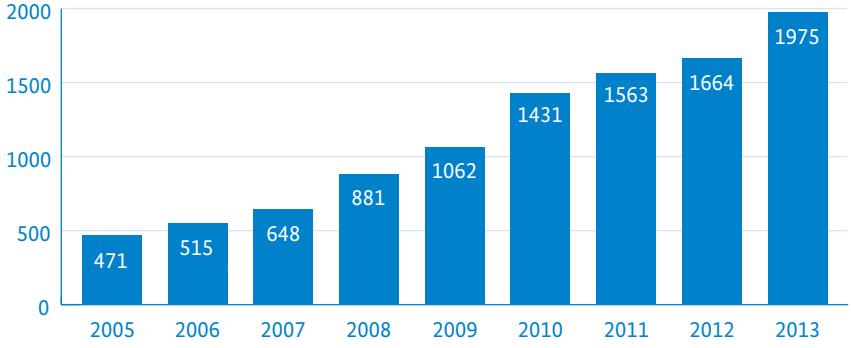
In the Copenhagen Accord of 2009 (COP 15),[30] industrialised countries committed to jointly mobilising US$100 billion annually from public, private, bilateral and multilateral sources, including alternative financing sources, over the long run starting in 2020. The commitment was reaffirmed in the Cancún resolutions in 2010 (COP 16).[31] Fulfilling this commitment is an important element in helping to bring about transformation to a low carbon, climate-resilient society.

The Green Climate Fund (GCF) plays an important role due to its mandate to support the paradigm shift to a low-emission and climate-resilient society. After the first donor conference in Berlin in November 2014 and COP 20 in Lima, the funds pledged for the GCF already totalled US$10.2 billion by the end of 2014,[32] making it the largest multilateral climate fund. At the Petersberg Climate Dialogue in July 2014, Germany made the first international contribution and pledged €750 million for initial capitalisation (approximately US$1 billion) of the GCF. At the same time, there are a number of other bilateral and multilateral climate funding streams as the first two-year report of the Standing Committee on Finance (SCF) of the Conference of the Parties (COP)[33] impressively shows.

Climate Financing – Reliable, Effective and Transparent

The industrial countries kept their promise, also made in Copenhagen, to make US$30 billion in additional public funds, known as fast-start financing, available for the period 2010 to 2012 (). Germany stepped up efforts in 2013 and exceeded the planned contribution of €1.8 billion in budgetary funds for climate financing by approximately €0.2 billion. For the years 2014 and 2015, the budgetary funds planned are €1.9 billion for 2014 and €2 billion for 2015.

Germany's contribution to international climate finance 2005-2013
Funding volume in EUR millions according to Doha accounting method *



* The figure shows the pledges of budgetary funds for all bilateral projects except energy and climate funds (ECF); expenditures calculated for ECF and multilateral projects.

Source: BMUB/BMZ

The IKI is an important component in Germany's contribution to international climate financing. The overarching goal is to deploy funding to encourage transformation and mobilise other resources – especially private resources – for climate change mitigation investments in the partner countries.

The IKI also supports the partner countries in establishing systems to track and report on national and international funding appropriated and spent on mitigation and adaptation measures, that is MRV of finance. The goal is to improve the transparency, completeness and consistency of this data and to strengthen the ability of the national institutions to make decisions about the use and effectiveness of climate financing.

To improve access to climate finance in the partner countries, the IKI also promotes the development and implementation of innovative financing instruments and financial products tailored to local needs. Partner countries also learn how to use international financing instruments and finance streams for themselves and how to integrate them into their national systems.

To achieve this, IKI projects start by improving the national conditions for developing and implementing financial instruments. These conditions include the basic institutional, legal and strategic conditions needed for investment in climate mitigation and biodiversity conservation, particularly from the perspective of the financial and private sector. Simultaneously, the aim is to improve the basic conditions for access to public financing sources at international (see the Green Climate Fund's fit-for-purpose approach) as well as at national level. Accordingly, training and advisory measures, for example, are geared toward supplying national institutions long-term support to strengthen the capacity for upholding fiduciary standards – access to public financing sources – or training local banks in how to identify climate-friendly investments and assess credit applications in the area of 'green financing' – access to private financing.

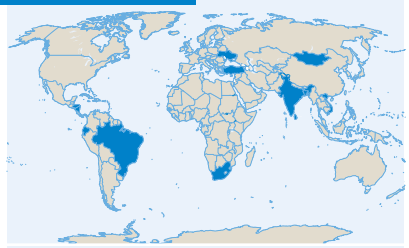
Private as well as public climate financing will play a crucial role in meeting the annual commitment of US$100 billion after 2020. The measures for global emissions reduction in particular also depend on investments from the private sector, for example in the energy sector. One of the core activities of international climate financing is mobilising and increasing these investments. The goal is to use the limited public funds in such a way that they effectively mobilise private funds for activities concerned with mitigating and adapting to climate change.

As a result, the IKI also directly supports mechanisms designed to mobilise private investment in climate change mitigation and biodiversity measures as well as climate-friendly and sustainable business models. These include risk instruments such as the assumption of first loss by public donors in public-private partnerships or microfinancing and insurance products in the area of adaptation.

It is crucial that these mechanisms are based on a clear analysis of the obstacles to private investment in climate change mitigation measures in the target country to prevent deadweight effects and create lasting incentives for private investment.

Innovative Climate Financing Fund

PROJECT DATA



Project title: Global Climate Partnership Fund
Countries: Brazil, Bangladesh, Ecuador, Honduras, India, Mongolia, Nicaragua, Sri Lanka, South Africa, Turkey, Ukraine, Viet Nam
Implementing organisation: KfW Development Bank
BMUB grant: €42.5 million
Project duration: Starting in 2009 and running indefinitely

Private investors drag their feet when it comes to investing in projects for renewable energy sources or energy efficiency, which are often small in scale. Not only is there a lack of necessary experience and confidence, but national financial institutions also do not have the right products in their portfolios geared toward this relatively new sector. Governments from emerging and developing countries are increasingly working together to improve regulatory and legislative conditions in their countries. The range of financing available for concrete adaptation and mitigation projects, however, continues to be mostly inadequate or too expensive.

This is the starting point for the Global Climate Partnership Fund (GCPF), formed in 2010 by BMUB and KfW. The privately organised and professionally managed GCPF provides financing for energy efficiency and renewable energy in emerging and developing countries. On the investor side, it offers various risk classes for public and private investors. The public resources in the fund assume first loss and thus act as a risk buffer for private capital. This new and innovative approach motivates private investors to invest in energy efficiency and renewable energy sources.

The GCPF uses the mobilised funds to grant loans to financial institutions in developing countries and emerging economies, which have their own programmes to provide funding to SMEs or private households. They then spend this money on concrete projects in the areas of energy efficiency and renewable energy. For example, in Mongolia, a local company was granted a loan totalling US$15 million through XacBank LLC to finance the production of energy-efficient cooking stoves. The particulate emissions of the stoves are around 80% lower than traditional stoves; they also consume fewer fossil fuels and therefore reduce CO_2 emissions by around 40%. The fund can also invest directly in individual climate projects in the target countries. One example is a one-megawatt photovoltaic system for operating a chrome mine that was refinanced in South Africa.

In addition to financial resources, the fund offers advisory services so that financial institutions can seek technical advice on designing credit products for investments in renewable energy and energy efficiency as well as on developing social and environmental standards in their companies. Financing is also made available for feasibility studies to evaluate potential direct investments for the GCPF and market studies on individual sectors in the partner countries.

With capital of €42.5 million from the IKI at its disposal, the GCPF has grown continuously since it was set up and currently has more than US$327 million in pledges from seven shareholders and a private investor.

The largest shareholders are BMUB with currently US$55.5 million and the UK Department for Energy and Climate Change (DECC) with US$49 million. The portfolio currently spans 15 investments in 13 countries. Since its formation at the end of 2014, energy savings of 16 million MWh have been achieved through loans disbursed across all projects. At the same time, CO2 emissions have been reduced by slightly more than 5.6 million tonnes. It has taken around five years for the GCPF to become established as a successful instrument with its steadily growing portfolio and diversified shareholder structure within the international climate finance community.

Cultivation of seedlings for reforestation, Silago, South Leyte.

PROJECT EXAMPLE

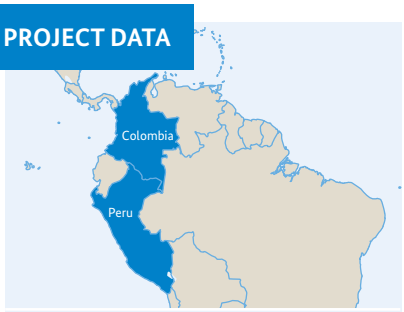
Financing Local Adaptation Measures

The IKI project entitled Microfinance for Ecosystem-based Adaptation to Climate Change in Peru and Colombia pursues two new approaches at the same time and in an entirely new way: it encourages, on the one hand, the introduction of ecosystem-based measures to promote adaptation to climate change and, on the other, develops solutions to mobilise private capital in the form of microloans, making it possible for the rural population to invest in adaptation measures.

Under the auspices of UNEP and in close cooperation with the Frankfurt School of Finance and Management, microfinance institutions (MFIs) are now able to offer climate change adaptation products in their range of services. Working with MFIs in Peru and Colombia, new and marketable financial products and services tailored to the rural population are developed for ecosystem-based adaptation to climate change. The MFIs are trained to assess risks associated with climate change, for example droughts and floods, and broaden their range of relevant financial products and services in rural areas.

The most innovative outcome so far is a software application developed for the MFIs. It compiles information on climate data and risks, agricultural planting cycles and possible adaptation strategies. This software makes it possible for MFIs to track the complex interactions and interrelationships affecting agricultural production in microfarms and identify the obstacles to sustainable development in rural areas for the first time

PROJECT DATA



Project title: Microfinance for Ecosystem-based Adaptation to Climate Change (MEbA)
Countries: Colombia, Peru
Implementing organisation: United Nations Environment Programme (UNEP)
BMUB grant: €4 million
Project duration: 2012 – 2017

Local farmers from Peru collect and sort domestically grown peppers.

ever. They can develop financial products that encourage financing for ecosystem-based adaptation measures. A whole new series of microcredit lines and advisory services has been created. A catalogue of 40 adaptation measures was also created which is primarily used by MFI employees and farming households as a guide to the right selection and implementation of the measures.

During the first pilot phase for the catalogue of measures, 1,300 loans were granted. At the Climate Change Conference in Peru at the end of 2014, four MFIs pledged to grant nearly US$20 million in more than 24,000 loans for investments in ecosystem-based adaptation measures over the next five years. No national or international public financing is needed.

The pilot project also showed that the approach can be replicated and expanded with minimal effort by integrating modern information technology solutions. IKI funds can therefore be used to mobilise a significant amount of money from the private sector.

PROJECT EXAMPLE

GCF Readiness

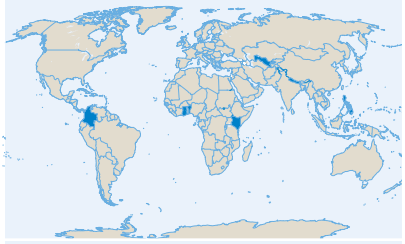
In 2014, the GCF Board agreed on the main legal bases and structures that are required for the fund to receive, administer and disburse climate finance in line with its goals and certain criteria.[34] Funding is currently being administered by the World Bank as an interim trustee. The GCF will approve the first funds on the basis of project proposals and national country programmes. The recipient countries will receive the resources only if they are adequately prepared (readiness).

Accreditation, which requires the national institutions to meet high fiduciary standards, is mandatory for direct access to the GCF. For many recipient countries, this is an enormous challenge. During implementation of the IKI project, an analysis of the prevailing conditions confirmed that many recipient countries lack suitable institutions to successfully access and implement the funds. These countries also often lack a national strategy for the transformative shift to low-emissions and climate-resilient development required by the GCF.

This is the focus of the IKI-funded GCF Readiness Programme. It strengthens the institutional and strategic capacity of the recipient countries so that they can plan how to use GCF financing both effectively and efficiently. The programme provides support in setting strategies, strengthens institutional conditions and prepares project pipelines. For example, the IKI programme is advising the governments in Colombia and Fiji on how to develop concrete projects based on national climate strategies that will be carried out with GCF funds at a later date. It is providing support in setting up monitoring systems to track the use of funds. Experiences in implementation have shown that the countries are very interested in support for the national coordination processes and in early involvement of the private sector in developing project pipelines.

The programme is set up as a trust with plans to add funds from other donors, which would allow the programme to be expanded to other countries.

PROJECT DATA



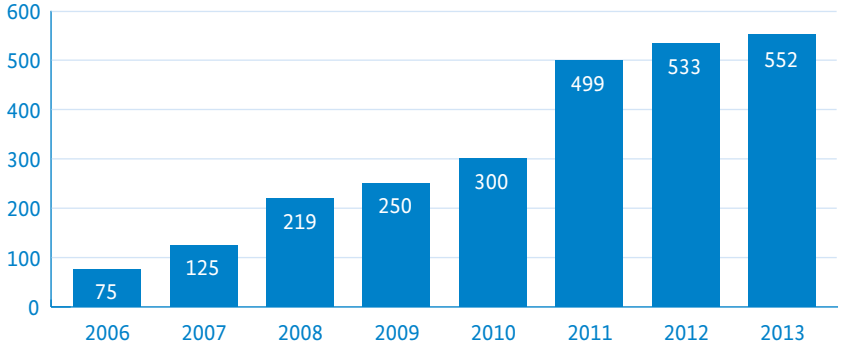
Project title: Green Climate Fund Readiness Programme
Countries: Benin, Colombia, El Salvador, Fiji, Ghana, Kenya, Nepal, Philippines, Uzbekistan
Implementing organisation: United Nations Environment Programme (UNEP)
BMUB grant: €15 million
Project duration: 2013 – 2016

Biodiversity Financing – Funds for the Implementation of the Strategic Plan for Biodiversity

There are also far-reaching financial commitments under the CBD: at the 12th meeting of the Conference of the Parties in Pyeongchang, South Korea in autumn 2014, the signatories agreed on financing for implementation of the Strategic Plan for Biodiversity 2011-2020. The goal is to double by 2015 the average funds made available from 2006 to 2010 and to then maintain this level until 2020. The mobilisation of financial resources directly supports Aichi Target 20 of the Strategic Plan for Biodiversity, concerned with financing for biodiversity.

Germany reliably fulfils its international commitments to finance biodiversity. In keeping with its 2008 pledge, Germany provided €500 million from 2009 to 2012 and, starting in 2013, it has made €500 million available annually for global biodiversity conservation. The IKI therefore supplements and broadens the German Government's activities: from 2008 to 2014 a total of €413 million was pledged from IKI funds that went either directly to conserving biodiversity or to projects with biodiversity relevance.

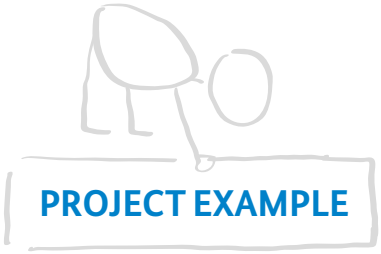
Germany's contribution to international biodiversity/forest finance 2006-2013
Funding volume in EUR millions according to Doha accounting method *



* The figure shows the annual bilateral pledges and multilateral expenditures for biodiversity and forest projects that focus on at least one of the three goals of the CBD.

Source: BMUB/BMZ

In Pyeongchang, the signatory states agreed to increase biodiversity financing at national level as well. The IKI supports partner countries in reaching this goal with economic analyses and national resource mobilisation strategies.



PROJECT EXAMPLE

Global Financing Initiative for Biodiversity

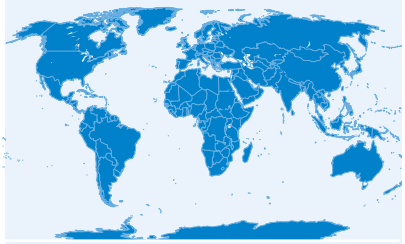
The IKI project makes an important contribution to financing biodiversity. To ensure that the goals of the CBD Strategic Plan can be effectively met, reliable data on the necessary financial resources is needed. However, many countries neither know how to raise these resources nor how they can be effectively deployed to meet their needs.

This is the starting point for the Biodiversity Finance Initiative (BIOFIN). It collects data about previous investment in conservation and sustainable use of biodiversity as well as the funds actually needed to implement the Strategic Plan for Biodiversity in the respective partner countries. This makes it possible to calculate the gap between need and actual financing. In 29 partner countries, this method is now being used to determine the overall conditions needed to improve biodiversity financing. The data serves as basis for the development of national strategies for mobilising resources and revising national development plans.

The UNDP also supports the partner countries in putting the resource mobilisation strategies' initial measures into practice. BIOFIN does not work solely with the environmental ministries; it also involves key stakeholders such as finance and planning ministries and other key sectors from the very outset. In Malaysia, for example, the project is providing input for national development planning and in Peru for developing financing guidelines for biodiversity-relevant measures. The methodology for the surveys is documented in a manual, which is updated on an on-going basis.

The initiative is supported by the European Commission, Switzerland, Norway, Belgium and Germany. Germany, the largest donor, has provided €17.3 million through the IKI.

PROJECT DATA



Project title: BIOFIN – Biodiversity Finance Initiative
Country: Global
Implementing organisation: United Nations Environment Programme (UNEP)
BMUB grant: €17.3 million
Project duration: 2012 – 2016

List of Abbreviations

ABS	Access and Benefits-Sharing
BDI	Federation of German Industries
BIOFIN	Biodiversity Finance Initiative
BMUB	Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
BMZ	Federal Ministry for Economic Cooperation and Development
BUR	Biennial Update Reports
CBD	Convention on Biological Diversity
CEPA	Communication, Education and Public Awareness
CfRN	Coalition for Rainforest Nations
CIDER	Centro de Investigación y Desarrollo de Energías Renovables
CIPSEM	Centre for International Postgraduate Studies of Environmental Management
CNI	National Confederation of Industry
CONAP	Guatemala: Consejos Nacional de Áreas Protegidas
CONAVI	Comisión Nacional de Vivienda
COP	Conference of the Parties
DAAD	German Academic Exchange Service
DBU	German Federal Environmental Foundation
DECC	UK Department of Energy and Climate Change
DEG	Deutsche Investitions- und Entwicklungsgesellschaft mbH
DGFFS	Peru: Forestry and Wildlife Agency
DIW	German Institute for Economic Research
DW	Germany's international broadcaster
EbA	Ecosystem-based Adaptation

EBI	Ethiopian Institute of Biodiversity
EBSAs	Ecologically or Biologically Significant Marine Areas
ECA	Peru: Ejecutores de Contrato de Administración con el Estado
ENCC	México: Estrategia Nacional de Cambio Climático
ETS/EHS	Emissions Trading System
FAO	Food and Agriculture Organization of the United Nations
F-Gase	Fluorinated greenhouse gases
FLR	Forest and Landscape Restoration
FND	Guatemala: Fundación Defensores de la Naturaleza
GCF	Green Climate Fund
GCPF	Global Climate Partnership Fund
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GPFLR	Global Partnership on Forest and Landscape Restoration
GPSM	German Partnership for Sustainable Mobility
HTW	University of Applied Sciences Berlin
IBK	International Advisory Group
ICCAs	Indigenous peoples´and community conserved territories and areas
IKI	International Climate Initiative
INDCs	Intended Nationally Determined Contributions
INECC	México: Instituto Nacional de Ecología y Cambio Climático
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
KfW	Kreditanstalt für Wiederaufbau
LCDS	Low Carbon Development Strategies

LDCs	Least Developed Countries
LECB	Low Emission Capacity Building Programme
LEDS	Low Emissions Development Strategies
LLP	Livelihood Protection Policy
MEbA	Microfinance for Ecosystem-based Adaptation to Climate Change
MENA	Middle East and North Africa
MFI	Microfinance Institution
MINAGRI	Perú: Ministerio de Agricultura y Riego
MINAM	Perú: Ministerio del Ambiente
MMA	Brasil: Ministério do Meio Ambiente
MoA	Ethiopia: Ministry of Agriculture
MoEPF	Ethiopia: Ministry of Environmental Protection and Forestry
MoESF	Nepal: Ministry for Water and Environment
MoST	Ethiopia: Ministry of Science and Technology
MRV	Monitoring, Reporting and Verification
MWE	Uganda: Ministry of Water and Environment
NABU	Nature And Biodiversity Conservation Union
NAMAs	Nationally Appropriate Mitigation Actions
NAP	National Adaptation Plan
NAPAs	National Adaptation Programmes of Action
NDRC	China: National Development and Reform Commission
OECD	Organisation for Economic Co-operation and Development
PECC	México: Programa Especial de Cambio Climático
PLANAVEG	Brazil: Plano Nacional de Recuperaçã da vegetação nativa

PMR	Partnership for Market Readiness
PoA	Programme of Activities
REDD+	Reducing Emissions from Deforestation and Forest Degradation
ReGrid	Capacity Building on Integration of Large Amounts of Renewable Energy into the Electricity Grid
RENAC	Renewables Academy
SCF	Standing Committee on Finance
SCT	Mexico: Ministry of Transport and Communications
SEDATU	Mexico: Ministry of Agrarian, Territorial and Urban Development
SEMA	Brazil: Secretaria de Estados de Meio Ambiente do Pará
SEMARNAT	México: Secretaría de Medio Ambiente y Recursos Naturales
SENER	México: Secretaría de Energía
SERNANP	Perú: Servicio Nacional de Áreas Naturales Protegidas por el Estado
SHCP	México: Secretaría de Hacienda y Crédito Público
SNNPR	Southern Nations, Nationalities and Peoples Regional State
SPREP	Secretariat for the Pacific Regional Environment Programme
TEEB	The Economics of Ecosystems and Biodiversity
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
WMO	World Meteorological Organization

Endnotes

1 The call for bids is published on the IKI website: www.international-climate-initiative.com/en
2 Greenhouse gases are carbon dioxide (CO2), methane (CH4), laughing gas (nitrous oxide N2O), chlorofluorocarbons and hydrochloro¬fluorocarbons (CFCs and HCFCs), and sulphur hexafluoride (SF6).
3 Statement at UN Climate Summit, Final Summary, September 25, 2014: www.newsroom.unfccc.int/unfccc-newsroom/un-climate-summit-ban-ki-moon-final-summary
4 Status: December 2014.
5 Enrique Peñalosa, 2005, former Mayor of Bogotá, Colombia.
6 IEA (2011): Transport, Energy and CO2: Moving toward Sustainability: www.iea.org/publications/freepublications/publication/name.3838.en.html
7 www.transport-namas.org/resources/handbook
8 www.german-sustainable-mobility.de
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