

Working together –



for our climate.

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PREFACE.

Our global climate system is changing – with serious consequences. As a result of global warming the sea level is rising, some species are becoming extinct and human communities are suffering immense damage. The consequences of climate change are already threatening developing countries most of all.

The cover of this Report shows a small businessman in a remote village in Bangladesh who, thanks to support from German Financial Cooperation, has been able to fit a solar system to the roof of his house. This is an example of intelligent approaches at the local level and of cooperation by industrialised, transition and developing countries. After all, the pace of global warming depends on humankind's response to the climate change which it has helped to bring about. The climate is thus an extremely topical issue and was last year justifiably high on the agenda of the German G8 Presidency, which led in June 2007 to the Heiligendamm resolutions. The Bali Conference in December 2007 marked the interim peak in the current debate about global commitment to mitigating climate change. Continuing in that vein, our Annual Report 2007 also addresses the topic of climate change.

To keep global warming in check – which first and foremost means reducing harmful greenhouse gases – it is of the utmost urgency for us to cut back on the CO₂ emissions caused by energy production. We therefore need to help developing countries with strong growth rates to steer onto a low CO₂ energy path in order to bring their need for energy into line with global climate protection. To that end KfW Entwicklungsbank and DEG support projects which increase energy efficiency in the partner countries and make use of renewable energies. At the same time effective support is needed for the most vulnerable and poorest countries in the world to equip themselves appropriately to deal with the consequences of climate change.

For over 20 years KfW Entwicklungsbank and DEG have been contributing to climate protection and helping developing countries to adapt to the consequences of climate change. As part of KfW Bankengruppe and the "German environmental bank", we have acquired sound specialist knowledge and, as a result, have become internationally esteemed partners in environmental and climate protection. However, the work does not stop there. Even greater efforts are needed to meet the challenges of global warming.

Our Annual Report 2007 shows the specifically targeted and impact oriented approach that we are pursuing together with our partners in the developing countries in order to meet those challenges.



Wolfgang Kroh



Dr Winfried Polte

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Wolfgang Kroh
(Speaker of the Board of Managing
Directors of KfW Bankengruppe)

Handwritten signature of Dr Winfried Polte in blue ink.

Dr Winfried Polte
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Deutsche Investitions- und Entwicklungsgesellschaft mbH)

1. FINANCIAL COOPERATION FOR MORE DEVELOPMENT WORLDWIDE.

RECORD LEVEL OF PROMOTIONAL SUPPORT.

2007 was a good year for the promotion of developing countries. KfW Entwicklungsbank and DEG increased their commitments to a new record level of EUR 4.2 billion. Some 25% more funds than in the previous year were

channelled to development projects in Sub-Saharan Africa, North Africa, the Middle East, Asia, Latin America and Eastern and Southern Europe.

REDUCING POVERTY AND CONSERVING RESOURCES.

Through its commitment, KfW Entwicklungsbank aims to bring about a sustainable improvement in the economic and social situation of people in developing countries. It provides support for programmes and projects which reduce poverty directly or indirectly. In order to achieve those goals it is also essential to protect the natural environment and the resources which are vital to human life. In practical terms, that means that the financial support and accompanying advice provided by KfW Entwicklungsbank enable the partner countries to invest in regenerative energies or in the rural water supply system, in the conservation of natural resources or in efforts to combat HIV and tuberculosis. The support of Financial Cooperation helps to put the partner governments in a position to establish and develop the social and economic infrastructure, to set up efficient financial systems and to structure the underlying political and legal conditions in their countries in such a way as to encourage development.

The focus is always on the impact. To take action where the market is failing or not functioning, to make an effective contribution to the creation of appropriate structures and to help the partner governments to launch reforms so that development has a lasting impact – those are the constant themes which determine what KfW Entwicklungsbank does. Its commitment is closely geared to the developmental objectives of the German federal government, which has committed itself at the international level to the United Nations Millennium Declaration, the Monterrey Consensus and the Paris Declaration.

Financial support and accompanying advice.

KfW Entwicklungsbank brings together decades of development experience and the professional skills of a bank. That sets it apart from other development organisations and makes it a much sought-after adviser for both the partner countries and the German federal government. Acting on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), KfW Entwicklungsbank carries out Financial Cooperation with developing countries.

The financial resources for this work come from the German federal budget and are increasingly being supplemented by funds which KfW raises in the capital market. In 2007 more than half the money for development projects (EUR 1.7 billion or 57%) came from KfW Entwicklungsbank's own funds. KfW Entwicklungsbank thus combines its financial potential as a credit institution with its development cooperation mandate. The funds are provided in accordance with the needs – in other words, according to the state of development of the partner country and the type of project – as subsidies, long-term, low-interest loans or loans at market conditions.

KfW Entwicklungsbank's commitment is geared to the partner countries and embedded in their national development strategies. The partners must take the initiative and bear the main responsibility for the projects. They plan their programmes and projects and implement them. In its capacity as a development bank, KfW shares responsibility for the design and developmental success of the projects that it supports. It advises and supports its part-

ners throughout the entire lifespan of the project and thus strengthens the capacities and skills of the programme and project executing agencies concerned.

European and international cooperation. This is closely coordinated and harmonised with the other players in German, European and international development cooperation. Thanks to an increasingly well-established division of labour based on the specific strengths of the participants, cooperation within the meaning of the Paris Declar-

ation can be packaged in the most efficient and effective way to contribute to the partners' well-being. For example, Financial and Technical Cooperation complement each other in joint promotional approaches. Co-financing and community financing with the European Commission and the World Bank or bilateral donor organisations such as France's Agence Française de Développement (AFD) mean that high impact, long-term programmes and reforms can be carried out jointly with the partners.

DEG MANDATE – ENCOURAGING PRIVATE ENTERPRISE TO INVEST IN DEVELOPMENT.

DEG is part of KfW Bankengruppe. In the context of the German federal government's development policy, it promotes private investment in developing and transition countries. By developing private business structures, it provides support for sustainable economic growth, secures jobs and incomes and thus helps to improve the living conditions of people in investment countries. As a promotional organisation, DEG closes financing gaps in the range of services provided by commercial banks and other commercial financial service providers.

It gives advice and structures its partners' investment projects and, apart from long-term loans, provides small and medium-sized enterprises, in particular, with venture

capital that can otherwise rarely be raised in the financial market. This is mostly achieved through equity investment and other quasi-equity (mezzanine) finance. Those enterprises are thus enabled to carry out promising, innovative development projects, which they would otherwise hardly be in a position to finance. Apart from providing finance, DEG gives long-term advice for its partners to establish a comprehensive environmental and social management system, thus helping to ensure the sustainability of the joint projects and at the same time to promote higher standards in the partner countries. Particular attention is paid to preventing the clearance of primary forests or the destruction of other high conservation value habitats.

G8 SUMMIT IN HEILIGENDAMM CONFIRMS PROMOTIONAL PRIORITIES OF KfW ENTWICKLUNGSBANK AND DEG.

"Growth and responsibility" was the federal government's leitmotif for the German G8 Presidency in 2007. The focus was thus on two topics – development cooperation with Africa and climate protection.

In Heiligendamm the G8 states approved an annual increase of USD 25 billion in the funds for development cooperation with Africa until 2010. The federal government will expand German Financial Cooperation with the African continent accordingly. The main strengths of KfW Ent-

wicklungsbank are its regional and specialised skills. In particular, the G8 summit also reached agreement on new and creative forms of financing to promote development in Sub-Saharan Africa; these will set the course for the future. Acting on behalf of the German federal government, KfW Entwicklungsbank initiated or played a major role in 2007 in designing the Regional MSME Investment Fund for Africa (REGMIFA), the Currency Exchange Fund (TCX) and the financing initiative Making Finance Work for Africa.

Together with the Investment Climate Facility, a G8 initiative, these new approaches in the partner countries provide important stimuli for improving the investment climate and hence for development which is based on self-reliance.

The Association of European Development Finance Institutions (EDFI), of which DEG is a member, also has a special promotional role to play in this area. The pooling of financing capacities and in-house knowledge leads to broader developmental efficacy and greater sustainability. At the same time, larger financing volumes allow a greater number of structuring options to be considered as a means of achieving a risk sharing balance and greater efficiency. The cooperation harmonisation process is already well advanced. This is particularly true of the recording and evaluation of developmental impacts and the harmonisation of environmental and social standards, which are also related to climate and resource protection. The Paris Declaration has been largely implemented at that level.

DEG will also step up its work among German small and medium-sized enterprises to encourage private investment in Africa and will continue to support the political information and promotional initiatives in Germany which were prompted by the G8 summit.

As part of the joint BMZ and KfW Entwicklungsbank Pro-Poor Growth Initiative, which is linked to the G8 summit, it is planned to set aside EUR 1.3 billion from KfW's own funds for structured finance and to gain partners from the private sector in order to increase the degree of impact by mobilising additional funds. It is estimated that the Pro-Poor Growth Initiative will make it possible to reach some 17 million disadvantaged people, for whom loans and other financial services will open up new developmental opportunities.

TOGETHER FOR CLIMATE PROTECTION.

The global responsibility of both industrialised and developing countries for climate protection was the second key topic of the German G8 Presidency. For the first time, the G8 states agreed on the need for common greenhouse gas reduction targets and also stated that the objective is to promote energy efficiency while at the same time ensuring the supply of energy. KfW Entwicklungsbank has been working in those two areas – climate protection and adjustment to the climate change – on behalf of the federal government for more than 20 years. Between 1997 and 2007 it committed a total of EUR 7 billion for cross-sectoral environmental and climate protection. By

providing EUR 190 million in finance for 35 projects in 2007, DEG contributed to ensuring that private enterprises in developing countries reduce their climate damaging emissions.

Measured in terms of its ongoing projects, KfW Entwicklungsbank and DEG constitute one of the largest financiers in this area. Using innovative approaches to provide effective climate protection and making it easier for the partner countries to make the urgently needed early adjustments to the climate change are aims which will, given the global challenge, continue to determine the commitment of KfW Entwicklungsbank and DEG.

PROMOTIONAL INPUT WITH A WORLDWIDE IMPACT.

Developmental impacts of the projects initiated by KfW Entwicklungsbank in 2007.

- We give and ensure access to microfinance services for more than 13 million people. Over the next five years we will allow around EUR 3.8 million in additional loans and thus secure more than one million jobs. We are making saving safer for a further 10 million people.
- The decentralisation projects appraised in 2007 are enabling KfW Entwicklungsbank to reach around 360 municipalities. More than 15 million people are thus benefiting from improvements in municipal administration and services.
- In the area of education more than 11 million children are reaping the benefit of the construction of schools and improved teaching quality, frequently in the context of basket financing agreed with various donors. Of these children 42% are girls, who generally have far worse education opportunities worldwide than boys.
- 49% of the projects approved in 2007 support the objective of gender equality.
- Through the health projects launched in 2007 we are reaching a total of 190 million people, 47% of whom have less than one US dollar a day to live on.
- Our HIV/AIDS prevention programmes are providing support for 38 million people.
- Some 19 million users will derive long-term benefits from improvements in the transport infrastructure.
- Measures to improve the water supply and sewage treatment and disposal are improving the living conditions of more than 6 million people.
- 36% of the approved projects make substantial contributions to environmental and resource conservation.
- Nearly 5 million people are benefiting from targeted environmental protection measures in their immediate vicinity, e.g. through the establishment of protected areas and the

furthering of rural development. Of those people, 64% are poor.

- The energy projects of KfW Entwicklungsbank appraised in 2007 contribute to climate protection by saving at least 1.2 million tonnes of CO₂ a year.
- Overall, 7.3 million people in developing countries are enjoying the advantages of improvements in the provision of energy services.

Developmental impacts of finance committed by DEG in 2007.

- The 113 DEG projects in 2007 will create around 28,000 new jobs. In addition, the DEG partner enterprises and their suppliers employ some 400,000 people.
- More than half the project enterprises co-financed in 2007 pay wages above the standard rate and many are also involved in social development by financing day nurseries and schools and providing cheap housing, for example, as well as through health care programmes and HIV/AIDS prevention.
- The investment triggered by the 113 projects is EUR 6.9 billion.
- Thanks to the new investment, the enterprises will pay more than EUR 600 million in tax each year and thus enable their states to do more to combat poverty and to improve education, health and the infrastructure. They will also contribute around EUR 1.7 billion a year to the acquisition of the foreign currency which is important for their countries.
- The environmental standards of the World Bank and the social standards of the International Labour Organization (ILO) are incorporated in the agreements governing all newly approved projects.
- Around half the projects co-financed in 2007 are making a direct contribution to the achievement of at least one of the eight international Millennium Development Goals (MDGs).



2. CLIMATE PROTECTION AND CLIMATE CHANGE – A GLOBAL CHALLENGE.

CHANGING DIRECTION NOW FOR TOMORROW – JOINT ACTION CAN MITIGATE GLOBAL WARMING AND ITS CONSEQUENCES.

There is no longer any doubt – the climate is changing. The process is irreversible and is largely caused by human activities. The United Nations Climate Council concluded in February 2007 that nothing can be done to prevent the earth from becoming even warmer; the main cause is the greenhouse effect caused by human beings. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) added weight to what many climate researchers have been saying for years: only a radical, concerted, rapid change of direction can head off the worst consequences of climate change. That calls for two basic responses on the part of the world community – first, climate protection, i.e. the avoidance of greenhouse gases and, second, adaptation to the consequences of climate change. The latter is particularly relevant to developing countries as they are the most at risk from the already apparent adverse effects of climate change.

CAUSES OF CLIMATE CHANGE.

Climate change, i.e. the alteration of the climate over a lengthy period, is not a new phenomenon. Our climate has been changing since the earth came into being. That is clearly shown, for example, in the tendency for the surface temperature to cool down or warm up during the course of thousands of years. The increase in greenhouse gases that has been observed for some time is due, however, to human activities.

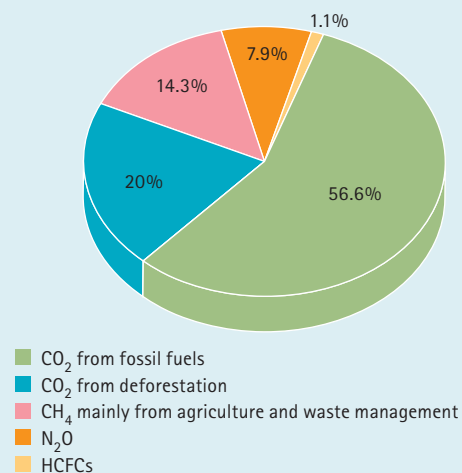
CO₂ – the main climate gas. With a share of just under 80% (2004: 26 billion tonnes), carbon dioxide is the main greenhouse gas and the principal cause of global

climate change. CO₂ is released by burning fossil fuels such as mineral oil, natural gas and coal and by burning wood. Since the beginning of the industrial era, the consumption of fossil fuels has multiplied sixty times over – the strong increase in the concentration of CO₂ in the atmosphere is a direct consequence.

Methane (CH₄), the second most important greenhouse gas, accounts worldwide for around 14% of the greenhouse effect caused by human beings. Methane emissions are produced, among other things, by the increase in animal husbandry, irrigated rice fields, the

THE GREENHOUSE GASES.

As the various gases differ in their contribution to the greenhouse effect, the unit CO₂ equivalent (CO₂e) was introduced to enable their greenhouse potential to be compared. One CO₂ equivalent indicates the strength of the contribution to the greenhouse effect made by a specific volume of a greenhouse gas in a specific period compared with the same quantity of CO₂. In 2004 global greenhouse gas emissions totalled 49 gigatonnes of CO₂ equivalent (CO₂e), broken down into the following components:



extraction of oil, gas and coal, and refuse disposal. Global warming is also caused by nitrous oxide (N₂O), which is released primarily by intensive agricultural soil management, and the synthetic greenhouse gases – PFCs and hydrochlorofluorocarbons (HCFCs). These are used mainly in cooling technology to produce synthetic foams, in the production of aluminium and semiconductors and as propellants in sprays. These gases pose a problem mainly because they can remain in the atmosphere for a long time. It takes several hundred and even a thousand years for them to decompose.

The main cause of the climate change. In the past 100 years the industrialised countries have burned large

By 2030 CO₂ emissions in the energy sector are forecast to increase by more than 55%. Three-quarters of this increase will be caused by the developing countries, led by China, which will account for 33% of the increase, and India, which will account for 12%.

quantities of coal, oil and natural gas and released their fumes into the air. The concentration of greenhouse gases in the earth's atmosphere has almost doubled compared with 100 years ago. The consequences for the climate are evident. As a global average, it is now around 0.74°C warmer than it was 100 years ago. If that consumption trend continues, at the end of the twenty-first century the CO₂ content in the earth's atmosphere will be three times as high as before industrialisation. Current studies suggest that by that date the average global temperature would rise by nearly 6°C.

It is not only in the industrialised countries that the pressure to reduce greenhouse gas emissions is growing. It is also true of the large, rapidly growing developing and transition countries such as China and India with their enormous demand for energy. In just 15 years CO₂ emissions in developing countries will outstrip those of industrialised countries. In 2008 China will already take over from the USA as the largest emitter. In order to set a CO₂ reduction course before it is too late, new energy technologies need to be developed and disseminated.

CONSEQUENCES OF CLIMATE CHANGE FOR DEVELOPING COUNTRIES.

All countries are affected by global warming but the most vulnerable are the poorest countries in the world, although they have contributed least to the climate change. In many developing countries global warming is aggravating current problems such as drought, steppe formation and water shortages.

The increase in extreme weather conditions is plain to see and is favoured by rising temperatures. Hurricanes such as Katrina, which devastated New Orleans in 2005, or Wilma, which hit the people in the Caribbean shortly afterwards, will affect people living in the Caribbean and in Mexico, in the Gulf of Bengal and on the east coast of China more frequently and more severely.

The melting of glaciers will have also far-reaching consequences. Scientists fear that this will jeopardise the water supply in Asia and Latin America over the long term. In the Cordilleras in south-eastern Peru, for example, the Quelccaya ice cap is melting, thus diminishing a key source of drinking water for the people living in the dry coastal region. Two-thirds of Peru's 27 million inhabitants live in that area. The melting of glaciers may also even lead to some of the world's main rivers drying up seasonally. As a result, in many regions the groundwater level is falling and more deserts are forming.

Many of the effects of global warming are converging in Africa like in a magnifying glass. According to current assessments, between 75 and 250 million people in

Africa will be affected by the increasing shortage of water and around 60 million people living in river deltas are at risk from the rising sea level. In other developing countries, too, freshwater supplies are becoming scarce, storm and flood disasters are causing considerable damage to the infrastructure, infectious diseases such as malaria are spreading, and food production is declining. This will intensify distribution conflicts and migration triggered by the environment. In Uganda, for example, it is assumed that the area suitable for cultivating coffee will shrink dras-

tically in the future – with dramatic consequences for the coffee farmers and hence for an important section of the economy.

Insufficient financial resources and weak institutions mean that many developing countries are the least able to shield themselves from the consequences of climate change by improving disaster protection, for example, taking steps to ensure a sustainable water supply or proactively adjusting the economic structure. To do these things, they need effective support.

INTERNATIONAL CLIMATE POLICY.

Climate change also has an appreciable impact on economies. In his "Review on the Economics of Climate Change" published in 2006, Sir Nicholas Stern, the World Bank's former chief economist, calculates, for example, that rising

temperatures and the ensuing consequences will cost the world economy between 5% and 20% of its gross domestic product each year – permanently. By contrast, according to Stern's calculations effective climate protection

Global warming threatens food production.



would require "only" 1% of the global economic output. Based on Stern's models, doing nothing about global warming and carrying on as before would therefore be five to twenty times more expensive for the global economy than consistent countermeasures – and would not serve human interests.

Target: two tonnes – two degrees. According to the IPCC, horrendous damage can only be avoided if the increase in temperature is kept to a maximum of 2°C compared with the pre-industrial era. In order to achieve that, global CO₂ emissions must be halved by 2050. That means that, for the world population, current CO₂ emissions must be reduced from 4 to 2 tonnes per capita. That is before adjustment for population growth. The USA currently emits 20 tonnes of CO₂ per person, Germany 11 tonnes and the European Union an average of 9 tonnes. In China per capita emissions amount to 3.5 tonnes and the figure for India is just over 1 tonne. The German federal government

is lending support to the aim of reducing emissions worldwide to 2 tonnes of CO₂ per person per annum.

Kyoto 1997 and Bali 2007. At the World Climate Conference on Bali in December 2007, 187 countries agreed on a road map leading to a new world climate agreement. The new agreement is intended to ensure that the emission of greenhouse gases in the atmosphere is reduced substantially by mid-century. By the end of 2009, it should be ready for signing at a conference in Copenhagen and then enter into force in 2013, when the Kyoto Protocol in its present form expires. The Kyoto Protocol had merely committed the industrialised countries to reducing greenhouse gases by an average of 5% by 2012 compared with 1990. The new agreement is intended to stipulate, as recommended by the IPCC, a reduction of 25–40% by 2020.

For the first time, the new world climate agreement will also commit the developing countries to taking clear

GERMAN GOVERNMENT PLANS TO SET THE TONE IN BIODIVERSITY CONSERVATION.

As the host of government representatives from all over the world, Germany is placing four main topics on the agenda of the Ninth UN Nature Conservation Conference on biodiversity conservation, which will be held in Bonn in May 2008*:

- 1 Whereas the federal government had previously already called explicitly for a worldwide network of conservation areas, it now wants to achieve a lot more. Some conservation areas – in Amazonia, for example – have already been established. However, there are still no marine diversity conservation areas.
- 2 The federal government intends to extend the previous, clearly fruitful resolutions on forest conservation to take account of global warming.
- 3 Too little money has been provided worldwide for biodiversity conservation. One aim of the conference in Bonn is to come up with a remedy for that situation, too. Whether the solution involves taxing the use of global environmental goods or awarding bonuses for not using them, innovative financing methods need to be developed.
- 4 Germany also wants to concretise the issue of how to increase the benefits of biological resources for the countries in which they originate.

* This Report went to press before the conference took place.

climate protection measures. Negotiations are taking place with regard to the proposal made by the tropical forest

countries, which are calling for financial incentives to protect those forests.

THE FEDERAL GOVERNMENT'S STRATEGY.

The German federal government provides support for its partner countries in developing and transition countries to pursue a climate friendly development course and to steer onto a low CO₂ energy path, the objective being to give the earth a sustainable energy system. The BMZ is providing some EUR 700 million each year from the action programme Climate and Development to promote climate protection, with a view to bringing about a dramatic reduction in the harmful CO₂ emissions in the energy and transport sectors. In order to make the partner countries more resilient to the consequences of climate change, they are being supported in their endeavours to manage endangered water resources or to protect the forests.

Many developing countries lack the specialist knowledge required to introduce new technologies. The federal

government therefore also supports the partner countries in the field of technology and knowledge transfer – for example, when introducing highly efficient power plant technologies or technologies enabling renewable energies to be used. As part of the EMPower Programme (Exploring and Motivating Solar Power Markets), for example, KfW Entwicklungsbank is providing support, on behalf of the federal government and the United Nations Environment Programme (UNEP), for developing and transition countries in the earth's sunshine belt to introduce solar thermal power plants or large photovoltaic plants to the market. At present, energy suppliers from more than ten developing countries are being given support to find appropriate uses for solar power plants in their supply areas – a concrete step in a new direction.

POVERTY REDUCTION AND ENVIRONMENTAL CONSERVATION GO HAND IN HAND.

Efforts to reduce poverty and to conserve the environment cannot be separated, even if those issues are not equally relevant to all developing countries and not every project can focus on climate protection. However, development cooperation which seeks to mitigate poverty generally also contributes to the conservation of natural resources. Current projects and investment decisions are designed jointly in such a way as to open up a future low CO₂ development avenue.

In the global interest – support for high growth countries, too. Transition countries such as China, India and Brazil need economic growth in order to reduce poverty. That explains why they are already among the economies with the most rapid increase in energy consumption. In order to meet their energy needs, however, many countries in Asia, for example, will resort more and more to

coal – with the associated negative CO₂ effects. For development cooperation the challenge is to harmonise this legitimate desire for economic growth and more energy with global climate protection – for the sake of us all.

Innovative promotional instruments for climate protection. The greatest contribution to the environment can be achieved by avoiding the creation of additional energy needs. KfW Entwicklungsbank therefore provides support for its partners in developing countries to increase efficiency in energy production, transmission and distribution and on the demand side – in industrial companies or in housing, for example – and to make use of renewable energies. Thanks to its substantial commitment, KfW Entwicklungsbank is now one of the two largest financiers of renewable energies in developing countries, the other being the World Bank Group. At the end of 2007 it was

working with more than 100 partner countries. In December 2007 the financing volume of all relevant projects in the energy sector was around EUR 2.8 billion. The promotional instruments which it uses for that purpose are continuously being further developed and tailored to the needs of the partner countries.

The first wind parks, for example, were subsidised; current practice is to finance these technologies by means of low-interest loans. This is because there has been a considerable decrease in the cost of those plants and technological advances have been made in their development. In addition, larger amounts of private capital are also being mobilised for that purpose in developing countries, which lends greater leverage to the promotional funds employed.

In order to overcome financing bottlenecks among private investors, KfW Entwicklungsbank and partner banks in developing countries have developed new loan programmes. They are also used to finance renewable energies and energy efficiency as well as investment in private households and industrial enterprises. The partner banks obtain low-interest refinancing from KfW Entwicklungsbank as well as specialist advice and support to design and implement the programmes.

More renewable energy and energy efficiency – the special 4E facility. Climate protection is playing an increasing role in the policy of the German federal government. In 2005, on the basis of a commitment made by the government at the Bonn “Renewables 2004” conference on renewable energies, KfW Entwicklungsbank and the BMZ established the Special Facility for Renewable Energies and Energy Efficiency – known as “4E” because of its German name. It provides low-interest loans for projects which contribute to reducing emissions of the main greenhouse gas, CO₂. In the first three years, there was such great demand for the 4E facility in the partner countries that EUR 510 million was committed. As a result of this success, the lifespan of the facility was extended and the

total amount increased from the original EUR 500 million to around EUR 1.3 billion. Experience has shown that the partner countries are willing to invest in climate protection if they are given the funds to do so and are able to finance the necessary programmes.

Chile is a case in point. In May 2007 Argentina turned off the gas supply to that country. The winter was very cold and Argentina needed its gas for itself and was no longer able to keep to its agreement with its neighbour. “For the people in the capital city of Santiago de Chile,” said KfW Entwicklungsbank’s team leader for sustainable economic development, Eva Witt, “that meant that they had to sit in the cold at sub-zero temperatures all day long and had no hot water for showers. Chile realised how dependent it was on its oil and natural gas imports.” The BMZ and KfW Entwicklungsbank lent EUR 80 million and were thus the first to provide support for energy suppliers in Chile, enabling them to invest in hydropower, biomass, wind energy and geothermal energy.

HAMBURG’S ANNUAL CO₂ EMISSIONS SAVED IN INDIA.

KfW Entwicklungsbank is providing EUR 80 million to support the construction of the Pare hydropower station in India. Furthering the use of renewable energies to generate electricity leads to annual savings of 565,000 tonnes of CO₂ and the availability of electricity gives many people access to better living conditions. Over the entire lifespan of the hydropower station, the emission of just under 20 million tonnes of CO₂ will be avoided. That is the equivalent of the annual CO₂ emissions of a city such as Hamburg with just under 2 million inhabitants.



Environmentally friendly urban development programmes also mean energy efficient transport and traffic systems.

Initiative for climate and environmental protection – the special IKLU facility. Climate protection and measures to adapt to climate change are – as has now become clear – two sides of the same coin. In the next ten years, they will play a key role in development cooperation. Because of Germany's internationally recognised expertise in the field of climate and environmental protection, it is the federal government's stated objective to make a visible contribution in the field of development cooperation, too. Together with the federal government, KfW Entwicklungsbank has further developed the 4E facility and set up the Initiative for Climate and Environmental Protection (IKLU).

From 2008 onwards IKLU, including the portion of 4E funds, should provide at least EUR 2.4 billion in low-interest loans and subsidies for climate relevant investments in developing countries, the aim being to contribute to the reduction of greenhouse gas emissions and to help the partner countries to adapt to the climate change.

Because of their size and growth dynamics, transition countries have both a large need and a great potential for environmental and climate protection measures – for

the ecologically acceptable development of conurbations, for example. It is forecast that there will be around 360 megacities worldwide in 2015; they will not only advance economic development but will also cause a vast amount of environmental damage. That is where IKLU comes in. KfW Entwicklungsbank makes its experience, experts and low-interest loans available to solve the urgent problems. These include improving industrial environmental protection, reducing wastage of energy and water, and promoting environmentally friendly urban development as well as energy efficient transport and traffic systems.

On the other hand, one of IKLU's objectives is to protect poor developing countries from the possible consequences of climate change and hence to counter the further intensification of an international imbalance of distribution and opportunities. To that end IKLU provides support for the changeover from an economy based on agriculture and forestry to sustainable cultivation practices, biosphere reserves, integrated water resource management and flood prevention.



3. THE MANY FACES OF CLIMATE FRIENDLY DEVELOPMENT.

EXPERTISE AND EXPERIENCE IN EVERY SECTOR – HOW KfW ENTWICKLUNGSBANK IMPLEMENTS THE FEDERAL GOVERNMENT’S CLIMATE OBJECTIVES.

KfW Entwicklungsbank is active in many different sectors involving climate protection and adaptation to climate change. More than 20 years of commitment, many years of experience and a solid fund of technical knowledge have made KfW Entwicklungsbank an internationally esteemed environmental and climate bank.

Reducing greenhouse gas emissions and supporting developing countries as they adapt to the effects of climate change are features of numerous promotional areas at KfW Entwicklungsbank – from energy and water supply, urban development and mobility to biodiversity, agriculture and waste management. Who would have imagined, 20 years ago, that the design of waste disposal sites could have an impact on our climate? Today it is very clear: climate work means network thinking, a central principle when KfW Entwicklungsbank is designing its projects.

At the planning and implementation stages of a project, KfW Entwicklungsbank contributes not only its financial skills and its experience in development matters but also its innovative ideas and its expertise in climate and environmental protection. It can also turn to good account a sound knowledge of local conditions acquired over years of cooperation with the partner countries.

Economists, engineers and other experts from a whole range of disciplines all work together in the KfW Entwicklungsbank teams. They attend to sectoral policy and ensure that its promotional concepts are tailored to the target groups in the countries concerned. They also make sure, for instance, that appropriate environmental standards are adhered to. When preparing its programmes and projects in developing countries, KfW Entwicklungsbank can, in addition, take advantage of synergies and draw on the experience of KfW Mittelstandsbank and KfW Förderbank. These banks' many years of promotional activity in Germany and the rest of Europe have gained KfW a reputation as "Germany's environmental bank".

Networked – promoting the private sector and protecting the climate. The expertise of KfW Entwicklungsbank is complemented by the specialised competence of DEG (Deutsche Investitions- und Entwicklungsgesellschaft mbH), which combines the promotion of climate protection and the needs and interests of private enterprise, particularly in the spheres of the infrastructure, manufacturing industries and agriculture. In developing and transition countries it promotes entrepreneurial initiatives that will contribute to sustained, climate friendly growth and improved living conditions and also makes long-term capital available to private enterprises for investments in those countries. Here particular importance is attached to promoting regenerative energy sources and renewable raw materials, improving energy efficiency, and certificate management in support of emission reductions. When tackled properly, climate protection also makes economic sense for the private sector in developing countries.

Climate is a cross-sectoral issue. In mainstreaming climate change, KfW Entwicklungsbank is currently developing instruments that will allow climate protection and adaptation to climate change to be taken into account in every sector. All projects are systematically scrutinised to check whether they contribute to climate protection and adaptation to climate change. Tools are also being developed which will allow the partners to tackle the climate-change risks inherent in the projects right at the planning stage. That can mean, for example, adapting the location, the size or the operation of a power station or a waste disposal site to the changed conditions.

Since the regional and local consequences of climate change have, to date, still been inadequately researched – the forecast expected values and occurrence probabilities show wide variances, with spatial and temporal uncertainties still very high – KfW Entwicklungsbank is backing “no regret” measures until it has reliable data. These are measures which are inherently worthwhile even if the data is not yet conclusive; they include schemes to protect water catchment areas and projects to counter water losses and food shortages.

There is an enormous global potential for avoiding greenhouse gas emissions and it can actually be exploited “free of charge”. In many different sectors, energy efficiency measures save so much energy that they also save more money than they cost. Both the private user and the environment stand to gain. Yet much of this potential, especially in developing countries, is currently being held

back by false incentives for the private sector and is not being exploited. Nevertheless, measures are being specifically promoted which promise, in addition to climate protection, particularly effective results in the sphere of poverty reduction. It is on these win-win areas that KfW Entwicklungsbank is increasingly focusing its limited climate protection resources in order to utilise them as efficiently as possible.

Ensuring sustained effectiveness – reliable framework conditions. Three factors are essential if an appreciable contribution to climate protection is to advance in line with adaptation to climate change: a broad impact, new approaches and favourable underlying economic, political and legal conditions. For instance, in order to ensure reliable energy supplies, KfW Entwicklungsbank is financing the further development of energy supply systems while at the same time advising the authorities concerned in matters such as adapting old legislation, establishing tariffs that will cover operating costs, and systematically planning the next investments. The energy suppliers are given support to build up efficient management structures and provide training for their employees. Only when a partner country implements such fundamental structural changes will a lasting effect be achieved for future generations.

Opening up new paths. In deciding which proposals to promote, KfW Entwicklungsbank always takes care to ensure that the basic approaches to the projects can be reproduced by others. Pioneering pilot schemes that have not yet been put to the test are specifically developed with the partners and given very intensive support throughout their duration. In the energy, transport and traffic, water, waste and resource conservation sectors above all, KfW Entwicklungsbank takes up the challenge of always linking poverty reduction and climate protection or adaptation to climate change. On the following pages we would like to show you how we do it.

Tariffs that cover costs also encourage the economical use of water.



THE KEY TO COMBATING POVERTY AND CLIMATE CHANGE – RENEWABLE ENERGIES AND ENERGY EFFICIENCY.

Whether the concern is about nutrients for our bodies, fuel for machines or electric current for a whole country, without energy there can be no growth and no development. The poor countries, too, need energy for development – far more than has been accessible to most of them to date. Poverty and energy poverty go hand in hand. Without a reliable and efficient supply of energy, economies cannot develop and jobs and income cannot be created.

One target of the German federal government's Financial Cooperation is therefore to ensure sufficient energy supplies for people in their fight against poverty. "Adequate energy supplies for all" is a sine qua non if poverty is to be combated, the main objective of the United Nations' Millennium Development Goals. The energy must, however, be sourced without damaging the ecosystem if development is to be sustainable. Only in this way can we reconcile the apparent conflict between climate protection and economic development.

Generating energy always affects our environment and our climate in one way or another. Burning fossil fuels releases dust, sulphur and nitrogen as well as CO₂, the environmentally damaging greenhouse gas. The unsustainable exploitation of traditional biomass such as wood leads to deforestation, steppe expansion and soil erosion and it also releases previously bound CO₂. If a sustainable global energy system is to be established, renewable energies and efficient energy generation and utilisation are the only options open to us, even if the start-up costs may often appear high when new technologies are introduced. Yet they are the key to climate protection.

Sustainable energy policies foster independence.

A new study has made an initial attempt to quantify the global CO₂ avoidance potential and the related costs. It shows that more than half the measures for saving CO₂ emissions can be implemented more cost-effectively in

developing than in industrialised countries. KfW Entwicklungsbank therefore supports the partner countries in the sector dialogue as they adapt their energy policies, explore and exploit efficiency potentials, and thus shape their economic growth in a climate friendly way. Since many developing countries have considerable unused renewable energy potential, KfW-Entwicklungsbank encourages them in their use of it. This not only protects the world's climate, it also makes the countries less dependent on expensive oil imports and fluctuating energy prices. After all, wind, water, the sun and geothermal energy are almost infinitely available as energy sources.

Renewable energies – advantages that will not run out. In many developing countries, however, the renewable energy potential has so far hardly been tapped at all. One reason is that start-up costs for their use are often high. The BMZ and KfW Entwicklungsbank therefore provide support for investment in exemplary projects such as wind-driven and hydropower stations and geothermal, biogas and solar power plants and in this way ensure the spread of new and efficient technologies and processes. That improves the countries' general energy and financial situation; but does more besides. It also improves people's living conditions. Electricity from wind-driven, hydropower or geothermal power stations can be fed into extensive power grids and thus become available for economic development over an entire supply territory. Geothermal power stations not only generate electrical energy; they can also supply heat directly to households for heating purposes.

Using the sun even at night. In rural districts where connection to a national power grid is often far too expensive and complicated, modern energy services can usually be accessed only via decentralised facilities which make use of renewable energies. In Morocco, for example, it is

mainly the cities and towns which have grid access. Power supply lines seldom reach far into rural areas, where half the population lives. After sunset, there are only candles and torches, and the meagre light they shed is too weak for studying or other regular work. Now, thanks to the support of KfW Entwicklungsbank, 26,000 home solar systems are reliably powering energy-saving lamps, radios and mobile telephones and giving some 150,000 people opportunities for a better life. The second stage of the project, which caters for a further 11,000 solar systems, will also include schools and health posts. Schoolchildren will be able to do their homework in the evening and health care will improve because it will be possible to keep vaccines and medicines refrigerated.

Progress with biogas. Home biogas systems can

also noticeably raise people's quality of life. In Nepal, for example, KfW Entwicklungsbank has promoted about 100,000 biogas systems on behalf of the BMZ – and that number is set to double by 2009. Until now, women in Nepal's rural regions have mostly had to cook over open fires without chimneys. They and their children would spend several hours every day collecting wood for their fires – time and energy that could be devoted to education or income-generating work. There were other disadvantages too, as the unhealthy smoke irritates the eyes and the respiratory system. The World Health Organisation estimates that some 1.5 million deaths every year are due to domestic smoke pollution. With biogas plants, all that is now changing. The women and children are healthier and have more time because now they can cook with clean

AN EXAMPLE FROM KENYA: HEAT FROM THE BOWELS OF THE EARTH.

The East African Rift Valley holds an inexhaustible source of energy for countries such as Kenya, Ethiopia, Uganda and Tanzania. In Kenya alone some 2,000 megawatts of electrical power could be generated from geothermal sources – almost twice the country's entire electricity production today. So far, however, only 11% of Kenya's energy needs are met from geothermal power because start-up and development costs are high, as are the risks. This is because, as with natural gas exploration, it takes expensive test drilling to locate the ideal site for geothermal power plants.

In Africa's largest geothermal power plant, Olkaria II, some 90 kilometres north-west of Kenya's capital Nairobi, steam is piped up from a depth of 2,000 metres at temperatures of up to 300 degrees. The steam drives turbines that generate electricity. The German federal government provided support for this power station through KfW Entwicklungsbank – with great success. The economic efficiency of Olkaria II was so convincing that private investors are now taking over the construction and operation of the follow-up project. It will provide around 430,000 people with power and, in particular, supply manufacturing enterprises with a reliable and sufficient input of electricity, thus making an important contribution to more growth and employment in the region. KfW Entwicklungsbank has committed some EUR 11 million to promoting the costly and high-risk exploratory and test drilling programme that is to deliver evidence of the required heat capacity. This will pave the way for the subsequent private investors, who could never bear the particularly large, high-risk start-up costs involved. Kenya's neighbours Ethiopia, Tanzania and Uganda could also build on this cooperation model and tap their still untouched geothermal potential in the Rift Valley.

energy generated from fermented cow dung instead of wood and crop waste.

High potential for CO₂ savings through improved energy efficiency. In the short and medium terms, the majority of developing countries will have to rely on fossil fuels to meet most of their energy needs, even if they do appreciably expand the role of renewable energies. That is why KfW Entwicklungsbank is supporting the partner countries as they boost efficiency on the supply side, in other words in generating, transmitting and distributing energy. Funds are also being made available for improvements on the demand side, such as using thermal insulation to reduce consumption in buildings and energy-efficiency measures in industry.

Cutting energy losses – creating better living conditions. Until recently, using electricity was not without its dangers for the people living in Nampula and Nacala in Mozambique. Unsafe power lines and connections were making the power supply in the two towns

really hazardous. Not only that, energy losses in both networks – parts of which were half a century old – were almost 50%. The hospital in Nampula was among the buildings affected. Operations were possible only under the most precarious of conditions, since there could be a power cut at any time. Now, however, thanks to support from KfW Entwicklungsbank, the state-owned electricity company has been able to refurbish and upgrade the obsolescent supply systems, thus more than halving power losses and laying the foundation for a safe, secure and continuous supply of electricity. The advantages are felt by everyone. The hospital in Nampula is now one of Mozambique's showcase hospitals and the reliability of the power supply has attracted a remarkable number of small businesses and industrial enterprises to the town. So it is not only the climate that benefits from the rehabilitated networks. The project has also created new jobs and earning opportunities in the area – climate protection and poverty reduction, hand in hand.



Biogas raises the quality of life, boosts health and protects the climate.

MAPPING THE COURSE IN GOOD TIME – ENERGY TURNAROUND IN THE TRANSPORT SECTOR IS IMPERATIVE FOR CLIMATE PROTECTION.

Development needs transport, and transport needs energy. Endeavouring to combat poverty successfully without a well-functioning transport and traffic system is a non-starter. However, whether this mobility protects or pollutes the climate depends on the direction it takes. Mapping the right course in good time is vital. The challenge lies in raising transport efficiency while at the same time promoting means of transport which reduce environmental pollution. Climate protection in the transport sector means leaving the car behind and changing to buses and trains.

When it comes to protecting the climate, there can be no way round adapting transport and traffic systems. Admittedly, this sector "only" accounts for 13% of greenhouse gases worldwide, but traffic emissions are set to rise out of all proportion in the wake of population growth and economic development. By 2030, according to the forecast from the International Energy Agency (IEA), the transport sector alone will be responsible for about 20% of the increase in global primary energy consumption.

Road traffic causes almost three-quarters of all greenhouse gas emissions in the transport sector. The BMZ and KfW Entwicklungsbank are therefore targeting their support towards developing and expanding public transport and the rail network because both can lead to a considerable reduction in energy consumption and greenhouse gas emissions. Energy consumption in a well-organised and needs-oriented public transport system is as much as ten times lower than for private motorised transport.

Private transport sends energy consumption soaring. Nowhere is energy consumption in the transport sector growing more quickly than in the emerging markets, such as China, India and Indonesia. This is due to the enormous surge in the number of cars, mopeds and motorcycles. Efficient and energy-efficient alternatives are largely non-existent. These countries rely on mineral oil for more than

90% of their transport fuel – with global consequences for oil markets and prices, not to mention greenhouse gas emissions. The IEA expects CO₂ emissions from traffic to rise by 170% in developing countries by 2030.

In order to counter this development in good time, KfW Entwicklungsbank is promoting measures on behalf of the BMZ that focus on building up affordable transport services, renewing and maintaining transport routes, purchasing and rehabilitating energy-efficient means of transport such as trains and ships, and improving management and financing in the public transport sector through organisational and pricing reforms, for instance. It is frequently the poor people in the suburbs, who can spend hours commuting to work, that stand to benefit from a reliable and low-cost local transport system.

Boosting neglected public transport systems. Transport infrastructures can mould a region or a town for decades or even centuries. In the developing countries, steps are being taken today that will shape their rapidly expanding cities for years to come. Later, changes in both city structures and user behaviour will be very difficult and costly to attain.

How much can be achieved in the long term if cities shift in good time to energy-efficient modes of transport is clear from a glance at the cities of Shanghai and Beijing. Whereas Shanghai expanded its public transport system and restricted private cars early on – with the support of KfW Entwicklungsbank – Beijing opted for ring roads. Today, the volume of private cars in the thriving city of Shanghai is markedly lower than in Beijing. There are twice as many cars on the roads in the capital as there are in the far bigger city of Shanghai. The ecological benefits of Shanghai's system are enormous. According to rough estimates, two million tonnes of CO₂ emissions are avoided every year.

AN EXAMPLE FROM CHINA: MORE PEOPLE, MORE GOODS AND LESS ENERGY.

In China, the BMZ and KfW Entwicklungsbank have set a great deal in motion – in the truest sense of the word. The three Chinese rail transport projects supported in recent years by German Financial Cooperation, namely the construction of two new east-west connections and the electrification of one of the most important north-south train lines, have certainly pushed forward Chinese goods and passenger transport, above all for the country's poorer inhabitants. Today, on the 300 kilometres which form the busiest section of the route from Changchun to Shenyang, as many as 55 passenger trains and 73 goods trains are on the rails every day in each direction. That is the equivalent of up to 300,000 tonnes of freight and about 100,000 passengers, most of whom travel in the lowest price class. "The electrification of the 1,000-kilometre-long section of the route," says KfW Entwicklungsbank's technical expert Kurt Rieckhoff, "was for China a quantum leap in its electrification technology. Because it is a low-maintenance system, it was also possible to ensure the reliable operation of lengthy bridges or tunnels that were up to 10 kilometres long in the most difficult mountain chains of Central China. The huge expansion in capacity prepared the way for moving traffic off the roads and onto the environmentally friendly rails as a long-term measure. It gave the people in the poor regions of the Chongqing and Guizhou provinces their first train connection to the thriving coastal provinces – and saves more than one million tonnes of CO₂ each year."

An interesting side note: the project was realised with German technology, as German enterprises tendered successfully for the contracts in the face of international competition.

On track for climate protection in the transport sector – off the roads and onto the rails.



Besides road passenger transport systems, KfW Entwicklungsbank is also committed to expanding the network of waterways and railways. In terms of energy consumption, the latter are up to ten times more economical than road transport. Countries where raw materials or bulk cargoes have to be transported over long distances, or where there is already a considerable volume

of container traffic, have a particularly high potential for energy-efficient and climate friendly transportation. The volume of all the active projects in the transport sector which are furthering this kind of climate friendly change with KfW Entwicklungsbank's support totalled some EUR 800 million at the end of 2007.

OVERCOMING THE EFFECTS OF CLIMATE CHANGE – THE KEY ROLE OF WATER BETWEEN DROUGHTS AND FLOODS.

Water users have competed against each other since time immemorial. It is no coincidence that the word "rival" comes from the Latin word meaning "using the same stream". Today, too, the scarce resource water is the focus of many competing and conflicting interests – human drinking water requirements and large-scale consumption in agriculture and industry, water requirements for energy generation, municipal and rural water supplies, and even neighbouring countries' water needs.

Water consumption is rising steadily with population growth, industrialisation and growing prosperity. More and

more countries are already stretching their available resources to the limits. Added to that is the fact that wastewater in many countries is not or not adequately purified – with serious consequences for humans and their environment. Many countries are suffering from water stress as less and less water becomes available to meet the needs. Climate change will only exacerbate the water stress in many regions.

If nothing is done to counter current trends, "the situation could deteriorate globally for more than 100 million people," the German federal government's Advisory

AN EXAMPLE FROM SYRIA: SAVING WATER WHILE SUPPLYING 330,000 PEOPLE WITH DRINKING WATER.

With its population of some 2.5 million, Aleppo is Syria's most important centre of commerce after the capital, Damascus. Yet sufficient, clean drinking water is no more than a dream for many of the people in the informal suburban settlements. They are forced to buy expensive contaminated water from tank truck distributors or to fetch it from their neighbours. At the same time, the old and damaged water mains leak one-third of the supply of good drinking water into the ground. The German federal government is supporting the water suppliers in Aleppo through KfW Entwicklungsbank with a low-interest loan of almost EUR 50 million for the purpose of repairing and rehabilitating the pipelines and thereby saving water. The water thus saved will be enough to supply about 330,000 more people with good drinking water – including the Iraqi refugees who have settled in Aleppo. That is more people than live today in the whole of Bonn or a British city such as Coventry. Aleppo's inhabitants will benefit not only health-wise but also financially, for the water from the public supply system costs only about one-tenth of that from the tank trucks.



Adapting to climate change means the sustained protection of water resources.

Council on Global Change (WBGU) warned in its report on “Climate Change as a Security Risk”, which was published in May 2007. Yet investments which contribute worldwide to improving the management of water resources and maintaining them for generations to come are not merely for the survival and health of the population. They also serve to prevent potential conflicts arising from shortages. For all these reasons, forthcoming changes must be carefully planned so that the partners are better equipped to counter and cope with the consequences of climate change. That is where KfW Entwicklungsbank comes in.

Integrated cross-sectoral water management. In order to help its partner countries to make efficient use of their dwindling water resources, KfW Entwicklungsbank provides support for integrated resource management, which takes various facets into consideration.

Water for the people. So that people can be provided with sufficient drinking water both now and in the future, German Financial Cooperation is supporting measures which improve water storage, distribute water more efficiently, reduce the often high water losses or provide incentives for the end customers to save water. In countries which already suffer from, or are threatened by, water stress, KfW Entwicklungsbank is providing around EUR 1.8 billion in financing to cover around 150 projects. The regions with the highest water stress also receive the largest share of the funds that are available for the water sector as a whole. These include North Africa and the Middle East, for example, as well as some East African countries.

In addition, KfW Entwicklungsbank provides large-scale support for its partners to develop ideas to improve

sewage management, to construct plants for environmentally friendly purification and – particularly in countries with water stress – to recycle treated wastewater produced by agriculture, for example. This can be a means of providing effective relief for strained water balances in those countries.

In the future, the desalination of water will also become more important. One innovative project in south-eastern Tunisia to desalinate brackish groundwater should ensure that the drought-plagued people have a basic supply of water after many years of little or no rain. KfW Entwicklungsbank is supporting the building of 12 plants that will help around 600,000 people to stay in their homeland.

Water for agriculture. The importance of agriculture for sustained development and poverty reduction is spectacularly highlighted in the World Development Report 2008. Financial Cooperation is mainly about increasing agricultural production and, as a result, the income of the rural population – while at the same time ensuring the sustained use of natural resources, particularly water and soil. Adapting to climate change in Africa, where 60% of people live from agriculture, plays a key role in this

respect – as it does in the Andean countries, North Africa and Southern Asia, too. Where feasible, efficient and adapted irrigation systems are used. In Tunisia, Morocco and Ecuador, for example, KfW Entwicklungsbank is providing support for new irrigation technologies such as drip irrigation. In Bolivia and Mauritania the concern is to improve water storage and implement water retention measures – through reforestation and renaturation as well as by recycling wastewater. The federal government is providing EUR 400 million in promotional funding to finance these measures in 28 projects in countries which are already suffering from, or are threatened by, water stress.

Flood protection. Adapting to climate change also means improving flood and disaster protection facilities in advance of the event. Additional dykes or flood retention basins need to be built and floodwater diversion canals improved. Urban and regional planners need to adapt their land use, early warning systems need to be established – and, not least, the appropriate financial services and insurance schemes to cover individual damage need to be set up for developing countries. In all these areas, both KfW Entwicklungsbank and DEG draw on their many years of experience when developing project approaches further.

WASTE – FROM ENVIRONMENTAL PROBLEM TO VALUABLE RESOURCE.

Controlled waste management is not just a prerequisite for sustainable economic development; it also makes a major contribution to protecting the environment and the climate. More than 10% of all climate-relevant emissions can be avoided by good waste management and recycling. By recycling waste to save raw materials and energy and by treating waste to avoid methane formation at waste disposal sites, waste management can make an effective contribution to climate protection. However, waste is still used far too little as a source of raw material and energy. Acting on behalf of the BMZ, KfW Entwicklungsbank is

therefore providing support for improved waste management in an increasing number of countries.

Uncontrolled rubbish tips do not just pollute the groundwater; owing to the methane gas which forms when rubbish is decomposing, they are also decidedly harmful to the climate. The effect of methane on our climate is 21 times as strong as that of CO₂. That means, on the other hand, that a reduction of 1 tonne in methane emissions is equivalent to a CO₂ reduction of 21 tonnes.

Acting on behalf of the BMZ, KfW Entwicklungsbank is therefore supporting sustainable structures for the con-

AN EXAMPLE FROM TURKEY: REORGANISING WASTE MANAGEMENT SAVES CLIMATE GASES.

Rapid population growth, more and more industrial firms, and chaotic, environmentally hazardous dumping – in Denizli, a town in south-western Turkey with 400,000 inhabitants, not far from the world-famous Pamukkale travertine terraces, the refuse situation had become completely intolerable. Only with the support of KfW Entwicklungsbank were its partners able to systematically tackle the problems. The waste management system was reorganised, an infrastructure for controlled disposal of the waste was created and a cost accounting system was introduced as the basis for a new fee system. The people who previously collected and sorted rubbish on an informal basis have now been organised into a cooperative. They are the town's contractual partners for sorting and collecting recyclable materials. In the new landfill site, the methane gases which are created are collected and rendered harmless in an incineration plant. This saves, on average, the equivalent of 150,000 tonnes of CO₂ every year. Over the total lifecycle of the landfill site, that amounts to 3 million tonnes. In addition to the residents of the town, 13 surrounding communities with some 120,000 inhabitants altogether are also benefiting from the new, controlled landfill site. This example can be taken as a model for others.

Extremely damaging to the environment and the climate – unofficial rubbish tips.



trolled and reliable disposal of waste. This may mean, for example, that collection containers and collection vehicles are purchased, controlled waste disposal sites, sorting or composting plants are built, or interim storage facilities and/or disposal plants are set up for hazardous waste such as batteries, waste oil and solvents. However, controlled waste disposal does not just include this sort of functioning grassroots infrastructure. Institutional and organisational structures also need to be set up, fee systems introduced, staff trained and general environmental awareness created. Unless there is a change in general awareness, it will not be possible to protect the climate and the environment.

By the end of 2007 KfW Entwicklungsbank had provided EUR 112 million in support for such projects. Part of its project approach is always to involve the people affected in its projects. That also applies to those who make a living from collecting refuse – often under the worst conditions imaginable. Controlled waste management should mean that the situation now improves for them, too. Depending on the project design, they will be employed at the sorting plants or they will be given a

service contract; their work will be legalised and their working conditions will be improved through the provision of protective clothing, health care and health monitoring, for example. What is more, thanks to more efficient working conditions and the improved recovery of recyclable materials, the whole family no longer needs to join in the work and the children can go to school.

Waste – raw material and energy resource. In particular, traditional recyclable materials such as paper, metals or textiles need to be recycled systematically, while valuable raw materials from electronic scrap, plastics, construction waste or electrical and cooling appliances need to be reused more. They supply “raw” materials, which otherwise have to be imported or destroyed at high cost. Organic waste such as market and slaughterhouse waste, sewage sludge or agricultural waste can be used to generate biogas. Waste which has been processed appropriately and has a high heat value helps to generate energy and, in doing so, replaces primary energy. KfW Entwicklungsbank is helping its partners to develop appropriate concepts and is also financing the immediate implementation of those ideas.

CONSERVATION AND SUSTAINABLE MANAGEMENT OF TROPICAL FORESTS – NEW FORMS OF FORESTRY PROTECT THE CLIMATE.

Around one-third – 31% to be precise – of global greenhouse gas emissions come from inappropriate land management and livestock farming in developing countries. Particularly serious, according to the Fourth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC), is the clearance of forests for livestock farming and agriculture. The conservation of tropical forests, nature and biodiversity is therefore an effective means of reducing the greenhouse effect.

KfW Entwicklungsbank has been working in this area for over 15 years now. In addition, it supports erosion protection and alternative land use projects, in which cooper-

ation with experienced non-governmental organisations such as the World Wide Fund For Nature (WWF), Conservation International (CI) and the International Union for Conservation of Nature (IUCN) plays a key role. Furthermore, KfW Entwicklungsbank works intensively with many local organisations which, although hardly known internationally, do reach the local population.

Focusing on tropical forests. All in all, around 15 million hectares of tropical forest are destroyed every year as a result of slash and burn agriculture or illegal felling – an area equivalent to one and a half times the size of eastern Germany. Although economically this may yield short-

THE TRAGEDY OF SO-CALLED PUBLIC GOODS.

The tropical forest ecosystem is essential for the survival of humankind. The rainforest protects the climate and biodiversity, stores water and the greenhouse gas CO₂, and produces oxygen. In technical jargon, these key functions of the tropical forest are among what are known as "public goods". To support and strengthen them cannot compete economically with other, more environmentally harmful forms of land "use", and their value is not evident until later – frequently not until it is too late. Only when there is no forest left will the actual cost to the general public become clear.

term profits, ecologically it is a disaster, since the tropical rainforests stabilise the world climate. Besides the oceans, they are the largest store of carbon. If the forests are destroyed, additional CO₂ will be released into the atmosphere. As much CO₂ was released as a result of the major forest fires in Indonesia in 1997-98 alone as on the entire North American continent in one year.

Various studies anticipate a high savings potential in this sector. If there is no further deforestation, global greenhouse gas emissions may be reduced by up to around 6 billion tonnes a year – and it would still be cost-effective. Acting on behalf of the German federal government, KfW Entwicklungsbank is therefore providing more than EUR 1 billion worth of support for forestry projects

AN EXAMPLE FROM VIETNAM: "GREEN SAVINGS BOOKS" HELP NATURE AND PEOPLE.

The model of "green savings books", which KfW Entwicklungsbank is supporting in Vietnam, is one possible new way of safeguarding revenue and protecting the forest and the climate at the same time. In order to stop further deforestation, farmers' families receive long-term rights to use public forest land, reforest it as appropriate to the location, and manage the new forest themselves – for their own benefit and for the good of the environment. To get them going, they are given tree seedlings, fertiliser and training as well as a savings book with their first three years' wages. Interest is paid on the savings, and the money is paid out to the farmers in annual instalments over an eight-year period. This covers the time until the use of the forest starts to make a profit. The payments are made on condition that proof is provided that the stipulated protective and maintenance work has been carried out. This system represents a major incentive for the families to maintain "their" forest professionally. After the first few years of setting things up, the reforestation will make additional profits. Since certified wood from sustainable forestry is also increasingly in demand on the world market, the environmental organisation WWF and KfW Entwicklungsbank have agreed on a partnership to certify the initial stock. The forest farmers are brought into contact with international buyers in a targeted manner so that they can benefit directly from the higher prices for certified wood. The model of "green savings books" now contributes to poverty reduction and sustainable environment management in 13 provinces in northern and central Vietnam. A total of 130,000 hectares have been reforested, and 86,000 families have taken part in the project so far.

throughout the world. These include over 100 projects in more than 40 countries worldwide. The objective is to safeguard forestry stocks and biological diversity.

In most cases, forest conservation in developing countries usually only works if the people concerned are able to identify a specific benefit for themselves. KfW Entwicklungsbank is thus supporting projects in the tropical rainforest throughout the world in accordance with the motto "protect and benefit". In Brazil alone, around EUR 260 million has been invested in the past 15 years. More than 100 forest reserves and Native American Indian protection areas have been set up with this aid. Covering around 500,000 km², these areas are larger than Germany, the Netherlands and Switzerland put together. In addition,

new environmental control tools have been developed and support for the decentralisation of environmental policy has been provided.



Tropical forests for CO₂ storage.

NO CLIMATE PROTECTION WITHOUT FAMILY PLANNING – POPULATION GROWTH ALSO AFFECTS THE CLIMATE.

The global population is growing by approximately 78 million people every year, 99% of them in the developing countries. According to the latest UN projections, 2.6 billion more people will live in these countries by the middle of this century than today. That is as many as in the entire world in 1950. The figure will by then have risen to 8 billion people from 5.4 billion today – and not without an effect on the climate, as the British demographer Tim Dyson's most recent calculations illustrate. He points out that even if the industrial countries manage to achieve a 40% reduction in their CO₂ emissions by 2050, this would be offset by population growth in the developing countries.

Rising CO₂ emissions can be attributed mainly to the ongoing industrialisation and economic growth in those countries, which leads to an increase in energy and goods consumption per person. However, people themselves also contribute to the emissions. This is largely neglected in the current discussion about climate change. In the second half of the twentieth century, rapid population growth was already responsible for around one-third of the increase in CO₂ emissions.

In developing countries, some 200 million women are currently unable to use contraception, even though they want to. The great need for contraceptives there is far from being met. The outcome is 76 million unwanted pregnancies every year. As the rise in CO₂ emissions is – literally – man-made, family planning measures are an indispensable part of an integrated climate policy. In order to slow down the greenhouse effect, population growth in the developing countries also needs to slow down. KfW Entwicklungsbank contributed to this in 2007 by providing contraceptives for 31 million people.

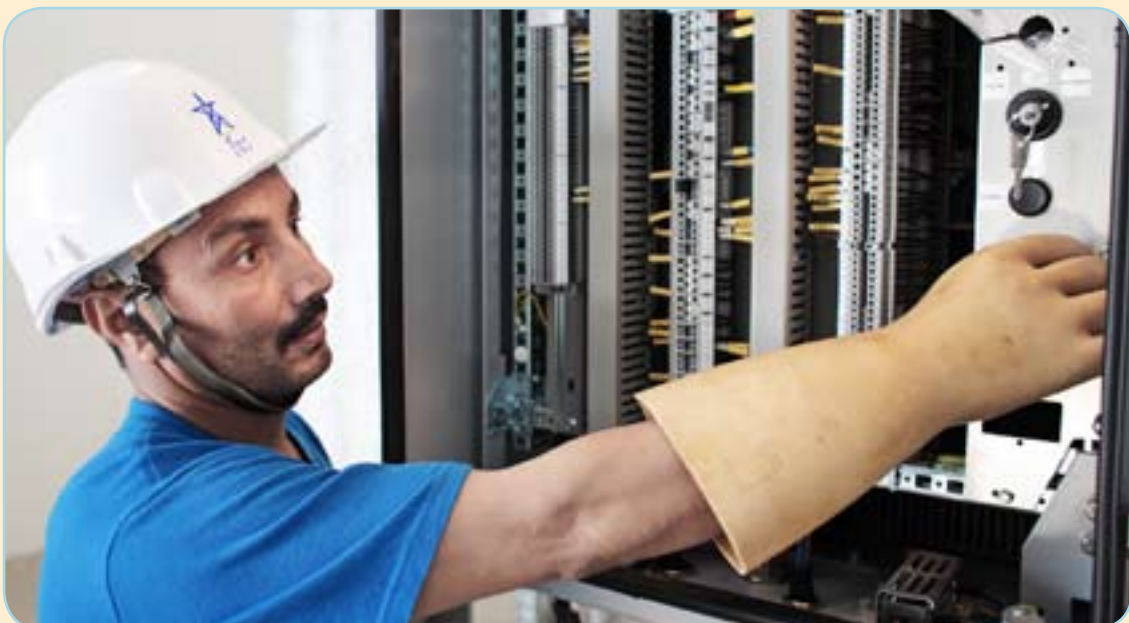
DEG: MOTIVATING PRIVATE COMPANIES TO PROTECT THE CLIMATE.

Climate protection has been a major issue for DEG since the mid-1990s. Since then, it has been targeting the financing of climate protection projects which focus on renewable energies and renewable raw materials in particular, but also on energy efficiency. With a financing volume of EUR 190 million for 35 projects, DEG is currently contributing to private companies in developing countries cutting their climate-damaging emissions.

Climate protection is a strategic corporate objective for DEG. The impact of any project on climate protection is systematically recorded. When acquired, new projects are checked to see whether the international standards for greenhouse gas emissions are met – the yardstick for co-financing by DEG. However, it also encourages companies with which it has already been working together for a long time to carry out modernisation measures or to invest in new, environmentally friendly technologies. Some companies in the partner countries do not yet employ production methods which meet DEG's high environmental standards.

To take stock of its own portfolio, DEG systematically studied greenhouse gas emissions from more than 90 partner companies in the raw materials and raw materials processing industry (e.g. energy production, mining/cokery, iron and steel production, building materials, glass and ceramics, the cement, chemical, car and paper industries as well as palm oil plantations) over the course of 2007.

The results now form the basis for systematically developing climate protection projects. As a result, the dialogue with customers was also intensified as, thanks to the study, it was possible to identify potential initial savings and to initiate the recording of climate risks. This is a further step towards developing joint proposals with DEG's partners to reduce greenhouse gas emissions, boost energy efficiency measures, and, not least, jointly invest in climate protection.



Switching on to an environmentally friendly climate policy in time.



4. THE REGIONS.

Sub-Saharan Africa.

FOOD SECURITY AND IRRIGATION ARE CRUCIAL TO CLIMATE CHANGE ADAPTATION.

Global warming is hitting Africa, of all continents, the hardest. Longer periods of drought are causing desertification and extremely heavy rainfall is resulting in devastating floods. Strong population growth is also intensifying fighting over the remaining usable land. The food situation will become worse if a radical new course of action is not taken quickly.

For many years KfW Entwicklungsbank has therefore been helping the countries in Sub-Saharan Africa to prepare for the existing and anticipated impacts of climate change. Most of all that means making agriculture as little dependent as possible on the rain which is becoming increasingly irregular – by constructing and extending efficient and appropriately adapted irrigation systems. In this work, the primary focus is constantly on the sustainable use of water and land. Soil erosion by wind and water must also be stopped in order to safeguard and promote food production – for subsistence farmers and commercial agricultural production. The measures needed range from reforestation and small walls used to retain the rainwater better to reservoirs and complex irrigation systems.

Sub-Saharan Africa does not have an irrigation system that is thousands of years old as in the Nile Valley and has so far little experience of irrigation methods. Practical support, small steps and a lot of patience are needed. However, the potential of the various irrigation options is great and very far from exhausted.

STOPPING THE SAND – EROSION PROTECTION PROGRAMME SAVES THE THREATENED RICE FIELDS IN MADAGASCAR.

The sand comes in the rainy season. Every year the rain washes an estimated 15 tonnes per hectare from the sandy slopes above the Betsiboka River in Madagascar. The Betsiboka plain is one of Madagascar's main rice production areas. Nearly 100,000 people earn a living directly or indirectly from irrigated rice production. That makes the region attractive to migrants from poorer parts of the island. They settle on the slopes on the edge of the plain so that they can also use them to cultivate crops, thus contributing to further erosion.

The annual sand avalanches destroy the rice fields on the plain and block the irrigation canals. The gullies caused by erosion are like canyons; some of them are several metres deep. More and more agricultural land in the areas around the Betsiboka River is being lost, and agricultural earnings are falling. That not only threatens the livelihood of many families; it is also placing the surviving forest areas and scrubland at risk as they are increasingly being converted into fields.

The blame for this catastrophic development is attributed to population growth in the past decades, the ensuing strong expansion of agricultural land on steep slopes, deforestation and inappropriate management. Things are made worse by the evident impact of climate change. Tornadoes sweep across the island more frequently than in the past; the rainfall has become less regular but when it does rain, the water pounds down very heavily on the unprotected ground. The result is that even more earth slides down the slopes or is washed away. Desertification is on the increase.

In order to stop the soil in water catchment areas being washed away and to introduce methods of farming and resource utilisation that are appropriate to the locality and take account of climate change, KfW Entwicklungsbank has been supporting an anti-erosion project for the past ten years, the Projet de Lutte anti-érosive (PLAE). What began in 1998 as a pilot programme in Marovoay is now a key partner of the government in Madagascar in all

matters relating to erosion prevention and the management of water catchment areas. The success to date is so promising that KfW Entwicklungsbank has extended its financial support with BMZ funds. It is making EUR 9 million available to PLAE until 2011 in order to stabilise the soil and to prevent erosion.

Most important of all, the farmers themselves are actively involved. The project makes use of simple techniques which the farmers use in their everyday life and with which they are therefore already familiar. In regions with a lot of stones, these are used to build sand traps. In other places specific grass, bush or tree species are used. To stabilise the unstable sand aggradations in the gullies, for example, further downstream grass nets are stretched across sections of the valley and held in place by stones or pegs. The seeds of fast growing trees are planted in the sand deposits. After no more than two years, their roots are already stabilising the loose earth.

So that erosion does not occur in the first place, the programme is also implementing a new land use plan. Traditional usage rights are linked to modern ownership rights. Anyone who was previously allowed to use a certain piece of land in his community now has his rights officially documented and assumes responsibility to care for the soil. The programme uses this new ownership rule to avoid the "tragedy of common land" in which land belonging to the village belongs to everyone and thus to no one; everyone uses it but no one takes responsibility for it.

From the outset, PLAE counted on the initiative of those who were causing the erosion as well as being affected by it. It first needed to alert people to the causes and to their own part in the erosion. The farming families also needed support and advice to get organised and to develop their ability to help themselves. Now the village user community draws up its own land use plans, endeavoring

In Madagascar erosion is spreading like cancer.



ours to achieve a consensus over contentious land ownership issues and agrees on rules governing the use of common grazing land. The programme supports them in the task of issuing title deeds or establishing usage rights. This is necessary if the farmers want to invest long term in soil fertility and erosion prevention measures.

Thanks also to the cooperation with the farmers' organisations, which was established on a very good partnership basis from the outset, the programme proved to be a complete success. The commitment of the people concerned exceeded all expectations and the outcome can be seen everywhere. Around 215,000 trees have since been grown in the village tree nursery and planted on the slopes and in the gullies. The people have restabilised around 1,700 hectares of eroded land in 32 smaller water catchment areas along the tributaries and sloping shores of the Betsiboka River. The work has been so successful that more than 6,000 hectares of irrigated fields in the seriously endangered rice growing areas are now considerably less silted up and the arable land can be used again.

Overall, 30,000 people have so far participated in the erosion prevention project – bearing responsibility for it, working independently and demonstrating a high input. The people have learned to adapt their agricultural methods. They know what to do to safeguard their food even if the risk of erosion increases.

Some 100,000 people on the Betsiboka plain depend on rice-growing for a living.



LIFE RETURNS TO THE SAHEL – LITTLE DAMS AND LARGE-SCALE IRRIGATION PLANTS SAFEGUARD FOOD CROPS.

It is almost like a surgical operation. A blockage is removed and life flows freely again. In the département of Podor in north-western Senegal the problem was caused by a sand dune. It had cut the N'Galenka creek off from the main Senegal River. In order to restore the dried-up river bed and fill it with water, the blockage – which was nearly two kilometres long – was breached. Today water again flows through the 50-kilometre-long side stream. Small pumping stations and canals now each irrigate an area of 50 to 60 hectares. The dry savannah has been turned into rice and vegetable fields. Most of all, it is the women who benefit from the irrigation areas allotted to them. They can earn an additional income of their own from growing bananas. Overall, the N'Galenka irrigation system covers

1,200 hectares, providing food and a livelihood for 26,000 people.

The N'Galenka village irrigation system in north-western Senegal is just one of many irrigation projects in the Sahel. For years KfW Entwicklungsbank has been supporting projects to help farming families in Mali, Senegal and Burkina Faso to adapt better to the drought. Desertification has been increasing here for decades. However, global warming gives even more reason to expect that the sand will spread over larger areas and some rivers even dry up completely.

There was no previous experience of irrigation in the N'Galenka area and two years of intensive preliminary discussions with the village community were therefore

needed before the bulldozers could be brought in to remove the clot of sand between the main river and its tributary. KfW Entwicklungsbank had employed a sociologist to talk to the nearby village communities, give them advice, obtain their agreement to the project and call for financial participation at an early stage. This was intended to test the people's willingness to contribute to the work and to organise themselves into a group – both of which are vital to the success of an irrigation project. In the traditional post-flood agricultural system, there was no need for a compulsory social irrigation organisation. Seeds were simply sown in the damp earth left when the river overflowed its banks and the plants were harvested three months later.

Now the village communities need to operate and maintain the irrigation plant and its pumps. The state irrigation authority is responsible for preserving the course of the river. Every few years it dredges the river bed to prevent it from being silting up again.

The more complex the irrigation system is, the more complex the social cooperation and organisation needs to be to ensure that it operates smoothly. The large-scale irrigation plant in Mali covers a total of 80,000 hectares in the Niger Inland Delta. The smallholders share this land, each having a plot of land of up to 2 hectares. Apart from KfW Entwicklungsbank, other international donors are involved. Large main canals supply as many as 3,000 hectares with water. However, water is only released into them when the slide gates in the structures at the end of the canals are opened and closed regularly. To allow the water to flow when it is needed, the people concerned must agree to work together according to a well-developed plan.

A strong implementation authority is needed which is able to step in to reclaim previously allocated land if individuals do not cooperate. Mali has a strong irrigation authority like that – the Office du Niger. Success is there for all to see – what was once a vast expanse of arid

Digging a canal in the dry savannah.



African steppe with a few scrubby bushes is now producing tomatoes, onions, bananas, sweet potatoes and rice. The irrigation projects in the Sahel have also led to user organisations being set up. They have a key role in the division of labour between the state, state-owned development companies and the farming families. The people can turn to these user organisations if they need support to obtain farming supplies, to process agricultural loans or to market their produce.

In Burkina Faso KfW Entwicklungsbank is providing support for a completely different kind of irrigation system. Here, little retaining walls are all that is needed to increase the yields in valley meadows. The little walls that are built in the lowlands are roughly 100 metres wide and 1.5 metres high. As a result, the rain does not drain away so quickly. More water seeps into the ground, which is then suitable for cultivation. In other regions this technique is used to raise the groundwater level. The farmers then dig wells and use them to irrigate their fields. The method is so simple and yet so effective in increasing the yields.

Village irrigation systems, large plants or walls – thanks to the previously fairly unknown irrigated farming methods, the families now harvest far more rice and vegetables than they need for their own use. They can sell the excess produce on the local and regional markets and use the proceeds to pay for their farming supplies and the water charges. What is left over at the end is additional income for the farming families.

A modest degree of prosperity can already be seen. Instead of having to make the arduous journey to the next market by bicycle or on foot in temperatures of 45°C as



Irrigation allows people to earn additional income.

the people did previously, they now use mopeds to make the journey easier. The women can also travel to more distant markets and take more goods with them. Low-maintenance corrugated iron roofs replace the old, leaking grass roofs which rotted every year and had to be replaced. Mobile phones and a growing number of television aerials bear witness to the connection to the modern world. The state irrigation authorities do not find it difficult to collect the water charges in the Niger Inland Delta in Mali or along the revived N'Galenka in Senegal. Virtually everyone concerned pays regularly – another sign of the project's success.

DEG: ROSES FROM AFRICA – INTERNATIONAL DIVISION OF LABOUR PROTECTS THE CLIMATE.

Anyone planning to give roses on Valentine's Day should look to see where they come from. Particularly during the cold season, flowers from Africa compete very well with flowers from Holland – at least as far as their environmental and climate record is concerned. A flower grower in the Netherlands not only uses a generally very high level of automation, he also has to heat his greenhouses for most of the year. By contrast, a rose farm in Kenya does not need any energy at all for that. Even including packaging, cooling and air transport, thanks to the location advantages with its favourable geographical and climatic conditions, CO₂ emissions and energy consumption are many times lower than in the Netherlands. International division of labour protects the climate.

This is the result of comparative study carried out by Cranfield University in the United Kingdom in February 2007. The study, which was commissioned following calls to boycott a British supermarket chain, states that in cultivating 12,000 roses on the selected farm in Kenya – including packaging, cooling and air transport to Britain – 2.2 tonnes of CO₂ were released. The corresponding figure for rose production in the Netherlands is 35 tonnes of CO₂. If, to obtain figures for the total greenhouse effect, the climate gases methane and nitrous oxide are taken into account as well as CO₂, the Kenyan emissions are only one-sixth of those in the Netherlands.

DEG has been actively involved in the flower-growing sector in Africa since 1997. All the rose farms financed by DEG are certified in accordance with top international environmental standards, and some of them have several certifications. Water consumption and pollution caused by untreated wastewater are far easier on resources than other agricultural sectors in Kenya. That is because of the treatment plants and treatment ponds on the rose farms and the efficient, closed irrigation systems, which do not waste a single drop of water.

Loans totalling some EUR 24 million now provide support for five flower-growing farms in Kenya and one in Uganda. Their success has been confirmed by the evaluation report prepared by an external, independent expert. From the development perspective, the report rates DEG's six flower-growing projects as "exemplary" and "best practice". They make a major contribution to the achievement of the Millennium Development Goals. The rose farms create more than 8,000 direct and indirect jobs in structurally weak regions, some of which are remote – and they pay above-average wages. In addition, day nurseries, schools and free standpipes for clean drinking water have been set up; they are open not only to the farms' employees and their children but also to the people from the surrounding communities. The farms also fund hospitals, support AIDS and malaria prevention programmes, and cover the cost of medical treatment for their employees and their families. These outstanding social services make the flower-growing projects supported by DEG something of a model in the region.

LATIN AMERICA: CLIMATE PROTECTION, RESOURCE CONSERVATION AND LOCALLY ADAPTED AGRICULTURE GO HAND IN HAND.

The tropical forest in Latin America and the Caribbean is of inestimable value for the world climate – and its biodiversity is unique. Covering around 8 million km², it accounts for more than half the tropical forest which still exists in various parts of the world – a store of riches which urgently needs protection. However, the rainforest can only be protected over the long term if it is used. Only then is it of value to the people who traditionally live in and from it. Acting on behalf of the BMZ, KfW Entwicklungsbank is thus involved in projects in Latin America and the Caribbean which target both climate protection and resource conservation and give the indigenous population a secure income.

In resource-rich Latin America and in the Caribbean, agriculture plays a major role as a means of earning a living but also as the basis for economic growth. Agricultural production – which in some regions is dominated by large agro-industrial enterprises responsible for soya and sugar production in Brazil, for example, or meat production in Argentina – yields a large share of the total national economic output. Nonetheless, poverty is far greater among the rural population than in the urban areas. Changing weather conditions, smaller harvests – consequences of climate change – are also making the situation worse.

KfW Entwicklungsbank is therefore concentrating on particularly remote, poverty stricken regions, in which family enterprises live from the proceeds of agriculture. In order to improve their lives and help them to adapt to the consequences of climate change, KfW Entwicklungsbank supports, among other things, investment in irrigated agriculture and better water management.

Many people in Latin America depend on agriculture for their living.



GREEN NET TO STOP DEFORESTATION – KFW ENTWICKLUNGSBANK SUPPORTS BIODIVERSITY AND CLIMATE PROTECTION IN THE LARGEST CONSERVATION AREA PROGRAMME IN THE WORLD.

Blazing rainforests, bald expanses of land where forests had to make way for single-crop agriculture or where cattle graze – everyone has seen pictures like that. Deforestation in the Amazon region has far-reaching consequences – for plant and animal life, for the people who depend on the rainforest for their living, and, not least, for the regional and global climate. Through the Amazon Region Protected Areas Programme (ARPA), the Brazilian government, with international support, is hoping to put a stop to unchecked deforestation.

Almost half of Brazil is covered by Amazon rainforest. It extends over nearly 4.2 million km² – an area larger than western Europe – and is thus the largest tropical rainforest in the world. All in all, an estimated 1.5 million plant and animal species live in the Amazon region, although so far only around 10–20% have been recorded. At the same time, the rainforest is a vast source of carbon and fulfils important functions for the stabilisation of the regional and global climate.

The Amazon region is, however, also home to more than 20 million people. Away from the large cities, there are groups of people whose families have been using the rainforest for hundreds of years – without destroying it. They are fishermen, gatherers and rubber tappers or belong to one of the 170 indigenous Amazonian peoples, many of whom have preserved their traditional lifestyles.

Since the Amazon region began to be opened up in the 1960s, vast stretches of the rainforest have been destroyed irretrievably by the extraction of natural resources such as wood, gold, oil or mineral ore, the establishment of huge cattle farms and the large-scale development of single-crop agriculture. Whereas the government previously spent many years actively promoting this development, it has since become clear that it is in Brazil's

own interest to ensure the long-term preservation of the Amazon rainforests.

A key instrument – although it is not the only one – in the struggle to prevent unchecked deforestation and the loss of biodiversity is the designation of nature conservation areas, which form major barriers to the illegal appropriation of land and the destruction of the rainforest. In 2002 the Brazilian government therefore launched the ARPA programme. The aim of the ambitious programme is to provide long-term protection for 50 million hectares of rainforest – an area roughly one and a half times the size of Germany. That makes ARPA the largest conservation programme in the world.

To ensure that the conservation areas do not merely exist on paper, ARPA is investing heavily in establishing and equipping park administration structures, drawing up

The controlled use of natural resources ensures their protection.





The next generation of trees in the rainforest.

management plans and ensuring that cooperation with the local people functions well. "It is immensely important for the local people to be involved," says Jens Ochtrup, who is in charge of the programme in KfW Entwicklungsbank's office in Brasília. "Nature conservation can only be successfully implemented together with the local people and not against their wishes."

In many conservation areas the use of natural resources by the people who live there is therefore not only allowed but an explicit objective. "However," Ochtrup cautions, "they have to agree on the precise areas with the park management and specify the quantities that a family or a cooperative may harvest in any one year." In order to guarantee sustainability and the long-term conservation of resources, the park authorities work with the local people to develop concepts that establish which areas may be used and how.

The local people are also involved in the conservation strategy in the area concerned – which has advantages for both sides. For example, the people in the Rio Trombetas conservation area are helping to monitor and safeguard the turtle nests during the egg-laying period. "Previously," Ochtrup recounts, "they sold the protected

turtles but now they are given money or food in return for their help to protect them."

The government measures to stop illegal deforestation are having an impact. In the past three years the annual deforestation rates have fallen by nearly 60%. This is unfortunately not a stable trend, as is shown by the sudden increase in deforestation to make way for soya production and cattle farming at the end of 2007. However, the good news is that the ARPA conservation areas have avoided emissions – as a total figure for the period until 2050 – of up to 6.6 billion tonnes of CO₂. That is nearly seven times the annual greenhouse gas emissions in Germany.

The total amount of investment needed to establish the conservation areas is estimated at USD 160 million. A further USD 240 million is needed to capitalise an endowment fund, the intention being to use the proceeds from that fund from 2009 onwards to help to finance the long-term running costs. Together with the Brazilian government, the Global Environment Facility (GEF), the World Bank and the World Wide Fund for Nature (WWF), KfW Entwicklungsbank and GTZ are taking part in the programme on behalf of the federal government. KfW Entwicklungsbank's share is nearly EUR 50 million.

ARPA has made good progress since it was launched in 2002. More areas have already been placed under protection than originally envisaged. ARPA can also credit itself with another success: after initial resistance, the people in the Amazon region have accepted the conservation areas. They are finding that the protected areas are shielding the region in which they live from illegal land appropriation and destruction and keeping them from having to migrate. "There are studies to confirm that," Project Manager Jens Ochtrup affirms. "In the ARPA areas hardly any trees are now felled illegally, soya fields laid out or cattle put out to grazing. The ARPA protection is having an impact on land speculators and illegal woodcutters. They keep away."

HARVESTING MORE WITH LESS WATER – ECUADOR ADAPTS TO CLIMATE CHANGE WITH INTEGRATED WATER MANAGEMENT.

Farmers in the Ecuadorian Andean province of Tungurahua – named after the volcano – do not need to worry about the fertility of their land. The region is well suited to the intensive cultivation of strawberries, blackberries, maize, potatoes and beans. What they do not have is water. There is relatively little rain and what there is falls unevenly throughout the year. In addition, the water resources are expected to decrease further as the climate changes. For example, the Chimborazo glacier, which supplies the winter snow as meltwater in the dry summer months, has already shrunk considerably. The region is thus losing another important store of water.

As the available water is not nearly sufficient to cover the needs in the region, competition for water rights is fierce. Water is needed by private households, by the booming provincial capital of Ambato with its industrial companies and manufacturing enterprises – and, above all, by agriculture, which provides a living for more than one-third of all families in the province. Agriculture accounts for around 80% of total water consumption.

Nearly half the agricultural land in Tungurahua is already irrigated. If the people do not have to wait for the rains, they can harvest earlier, take their produce more quickly to the market and charge higher prices for it. Irrigation increases earnings and income – when it functions properly. A vast amount of water is lost in the traditional irrigation systems. Far too much evaporates or seeps through the old earthen canals.

The rural population is generally poor. Many families only harvest enough for their own needs. That is not enough to give them a secure outlook on life. That is why – driven by the hope of finding work – more and more people are migrating to the cities. Alternatively, they look for additional land in the higher, ecologically sensitive areas of the province, where they can earn an additional income from cattle farming. However, cattle farming damages the grassy uplands, known as páramo. The ground's rainfall retention capacity is destroyed – and the water shortage intensified further.

In order to counter such developments and to show the farming families how they can better adjust to the dwindling water resources, the regional government in the Andean province has been committed for years to improving water management – and has met with great success. KfW Entwicklungsbank is supporting the prefecture as a considerable volume of funds is needed for infrastructure measures to reduce the water losses or for reservoirs to be built. The objective of this financial cooperation with

The Chimorazo glacier is an important store of water but it is steadily shrinking.



Ecuador is sufficient water which is fairly distributed – which also means between rural and urban areas. Acting on behalf of the BMZ, KfW Entwicklungsbank is providing EUR 10 million for the establishment of an integrated water resource management system.

Everyone's needs are taken into account – people in the rural areas and in the towns, agriculture and industry, and finally nature and the environment. The outcome is a comprehensive water management plan. It specifies what is to be done so that there will still be enough water in 20 to 30 years' time and people can adapt to the climate change.

The aims of the ambitious project are to manage and use the water resources more efficiently, to establish sustainable agricultural production and at the same time to help the smallholders to earn more so that they do not need to move away. The municipal councils, water associations, non-governmental organisations and the national water board meet in the "water parliament" several times a year, as necessary, to discuss these matters. In implementing the decisions, the provincial government and the rural population are also advised by GTZ and DED (Deutscher Entwicklungsdienst).

Thanks to this modern water management system, which is supported by the BMZ via KfW Entwicklungsbank, GTZ and DED, the prefecture plans to ensure that the water budget is kept in balance – despite the climate change and the melting glacier. It can count on the self-sufficiency of the farmers and their exceptionally great willingness to be part of the projects. For example, the people in the communities joined forces to repair a 20-kilometre-long irrigation canal which had been unused for decades. Other irrigation canals have been freshly lined, treatment plants built and sizeable reservoirs installed. The farmers also take part in reforestation work in water catchment areas that are particularly at risk and help to set up water con-



Slopes at risk of erosion must be stabilised.

servation areas and to secure slopes that are at risk of erosion as well as sections of the canals.

KfW Entwicklungsbank provides support not only to develop the infrastructure but also for training measures. In the courses, the farmers learn how to operate and maintain the new irrigation systems, which may be based, for example, on drip or sprinkle irrigation techniques. They are also shown how to take care of the systems and maintain them on their own. The farmers then need less water per hectare and are even able to increase their harvest – the best way to make sure that they can stay in their homeland.

DEG: INVESTING IN ECUADOR'S LARGEST BAGASSE POWER STATION.

Bagasse is a by-product of every sugar cane factory in the world. And everywhere people ask the same question – What can we do with the long fibres which are left over when the sugar cane is crushed? Since Ecuador amended its electricity laws and has been promoting renewable energies, there has been an answer to that question. Biomass power plants need bagasse to generate electricity. In Ecuador private enterprises are now also allowed to generate electricity and – in return for an attractive fee – feed it into the national grid.

Little has changed in the production process in sugar cane factories in the past 100 years. Sugar cane is crushed and the residual bagasse is piled up in foul-smelling mounds on the factory site. The factory uses some of it for its own needs, burning it to generate steam. The steam then drives the giant mills in which the sugar cane is crushed, brings the sugar cane juice to the boil and drives turbines and generators which produce electricity.

"Recycling the valuable raw material was, however, anything but efficient," says Burckhard Thiemann, Senior Investment Manager for Infrastructure at DEG. Most bagasse was simply burned and the steam used wastefully in the production of sugar or released into the air." That is now changing in Ecuador. The three sugar cane factories in the country are building biomass power stations instead of disposing of bagasse in a way that is harmful to the environment.

In Milagro DEG has a stake in the largest of these new bagasse power stations in the form of a loan worth USD 8 million. With an installed capacity of just under 28 megawatts, electricity will, in the future, be produced during the sugar cane harvest. The energy company ECOELECTRIC S.A. (ECOSA), which has been set up by the sugar factory for that purpose, has built a combined heat and power plant on the factory site. The waste production in sugar cane processing is burned in grand style in highly efficient state-of-the-art boilers and steam and electricity are produced. Steam is sold to the sugar factory while two-thirds of the electricity generated is fed into the national electricity grid. The factory needs the rest for its own operational purposes.

Overall, USD 32 million is being invested in the construction of the biomass power plant. DEG has therefore mobilised more capital – another USD 8 million from the Andean Development Corporation, CAF, and USD 5 million from the international infrastructure fund, CIFI. The remainder is covered by ECOSA.

Investment Manager Thiemann sees major advantages in the "symbiotic connection between the power plant and the sugar cane factory". "Bagasse is a very cheap raw material. As, in this case, it is immediately on hand as a factory by-product and there are no transport costs. The energy content of the bagasse is recycled optimally in the power plant. The sugar factory covers its own steam and electricity needs. What is more, it benefits from the additional revenue from the electricity that is fed into the public network and sold. That makes it less dependent on fluctuating sugar prices on the world market."

The biomass power station, which, following a two-year construction period, will start operating in mid-2008, will also benefit the climate. ECOSA has already applied for climate protection certificates for the anticipated annual savings of 71,000 tonnes of CO₂ emissions compared with the use of other sources of energy. These certificates are sold via the Andean Development Corporation to the Netherlands and give the energy enterprise additional income.

"Bagasse power stations," Thiemann says, "are a good example of how Ecuador can make better use of its potential to produce electricity from regenerative raw materials and increase the share of renewable energies. They also complement hydropower generation, which is dependent on rainfall, and cover the growing need for energy – especially during the dry period, when the sugar cane is harvested."

DEG plans to put this positive experience to greater use when financing sugar cane factories in other partner countries. For example, some of the electricity generated by a sugar factory in Mozambique is used by the surrounding settlements.

Bagasse power plants produce steam and electricity from sugar cane waste.





KNOWLEDGE TRANSFER FOR CLIMATE PROTECTION – CLIMATE FRIENDLY WAYS OF MEETING ASIA'S MIGHTY ENERGY NEEDS.

In many Asian countries, climate protection is the focus of KfW Entwicklungsbank's commitment. The countries need more and more energy in order to create jobs, reduce poverty and continue the impressive upswing of recent years.

For the past seven years, average real economic growth in the Asian developing countries has been around 70%; for the period since 1991 the figure is as high as approximately 200%. This has brought about a distinct reduction in poverty and, accordingly, a substantial improvement in the living conditions of broad sections of the population. However, the side effect of this economic growth has been an increase in pollution. CO₂ emissions have roughly doubled since the early 1990s, with a negative impact on the global climate. Of course, the people in these countries also suffer from the increase in harmful emissions (smog, respiratory and other illnesses, etc).

However, the energy supply systems in Asian developing countries were faced with other challenges in addition to that of covering the overall increase in energy needs. Energy policy had to find ways – and still does – of giving more people access to electricity. A readily available supply of electricity opens up completely new perspectives for people – being able, for example, to read or do homework after dark, to launch a small business which uses machines or computers, to watch television or to listen to the radio.

The partner countries also need, and are planning, a considerable expansion of electricity generation, transmission and distribution capacities. Without changing over to environmentally friendly sources, however, this will lead to a further marked increase in CO₂ emissions.

CLEAN ELECTRICITY AND MORE LIGHT – NEPAL MAKES USE OF ITS GREAT HYDROPOWER POTENTIAL.

The people in Nepal are used to darkness. As soon as the sun sets, it is often doubly dark – because daylight ends and because the light regularly goes out again almost as soon as it is turned on. The energy supply company generally announces the power cuts in advance – but not always. When the shops light up their displays in the evening and, at the same time, the people at home switch on the light and cook their dinner, the state-owned energy supply system is no longer able to cope. Parts of the supply are then cut off. That happens particularly in the warm season, when electricity is also needed to run air conditioning plants and irrigation pumps.

Only one-third of the population in Nepal is connected to the electricity supply. Despite this low rate of electrification and the fairly low average consumption of around 700 kilowatt hours per annum and per household by those

households connected to the power grid – a German household with four people consumes roughly six to seven times as much – the electricity producers cannot cope. The demand for electricity is also increasing continuously, by around 8% a year. The constant power cuts make people's day-to-day life difficult, are detrimental to industry and small businesses and are ultimately harmful for the climate, too. The alternative form of electricity produced by diesel generators is not only very expensive but also very damaging to the environment because of the CO₂ emissions.

However, the country would clearly be able to cover its electricity needs – and in a climate friendly manner. Although Nepal is one of the poorest countries in the world and has no coal, oil or natural gas reserves worth mentioning, it has vast hydropower potential which could be used to generate climate friendly electricity.

In order to help the country to develop its potential or to make greater use of it, KfW Entwicklungsbank has been involved in the Nepalese energy sector for years. Financing was provided, for example, for the Marsyangdi hydropower station – named after the river – which began operating in 1989. KfW Entwicklungsbank is currently financing a follow-up project – the Middle Marsyangdi hydropower station, which is located some 40 kilometres further upriver from the first power station.

Middle Marsyangdi has been designed as a run-of-river power plant. The river water is channelled into a tunnel, which is around five and a half kilometres long and has a drop of some 108 metres, and drives generators at the end of the tunnel. Those generators will feed around 400 gigawatt hours of electricity each year into the national grid – covering the current electricity shortage in Nepal. Around 3 million people can be supplied with climate friendly energy.

For Otmar Werner, KfW Entwicklungsbank's Project Manager in charge of the scheme in Nepal, what needs to

be emphasised in the Middle Marsyangdi project, however, is that the local population is also deriving considerable benefit from the construction of the hydropower plant.

In order to compensate the local population for the disruption in the construction phase, KfW Entwicklungsbank is financing the Neighbourhood Support Programme. EUR 3 million in Financial Cooperation funds is being channelled to infrastructure, education and health projects in order to promote and secure regional development so that there is a distinct improvement in people's living conditions.

The concept of the Neighbourhood Support Programme depends on the communities taking the initiative and encourages them to take an active part in planning and implementing the projects. "When the project began," Werner says, "the communities were invited to make proposals for necessary infrastructure measures. Where are new roads needed, which schools need to be built or repaired, which communities want a water supply system?"

The upper section of the Middle Marsyangdi hydropower station.



Even the decision about the measures to be implemented, given the available funds, was ultimately left to the local people. As far as possible, they also work on the project."

First and foremost, roads are built to connect regions which were previously difficult to reach. Where a hanging bridge was once the only way to cross the river, a bridge which can be used by cars and buses will span the banks. The water supply projects mean that people in the communities no longer need to struggle to fetch water from the rivers or streams. Some districts have also been connected to the public power grid. In addition, two urgently

needed health stations, including a doctor and an ambulance, have been set up so that patients no longer need to make the long journey to the nearest town. Although a few families had to be resettled to allow the power station to be built, they were well compensated for the loss of their land. Instead of the stony, barren soil which they previously worked close to the river, they are given fertile land close by. "Middle Marsyangdi is changing the daily lives of many people in the region and throughout the country," Project Manager Werner observes. "It is helping to make things easier – and most of all brighter."

FEWER EMISSIONS BUT DOUBLE OUTPUT – KNOWLEDGE TRANSFER IN CHINA FOR INNOVATIVE ENVIRONMENTAL TECHNOLOGY.

In the 1950s, when Mao Zedong put his finger on the map of China and "created" a new city, north-western China was nothing but desert. Shihezi, in the Gobi desert, emerged literally from nowhere and is today a booming economic centre in the autonomous province of Xinjiang. The city's economic growth – like that of the entire country – is making itself felt in a substantially greater need for energy. New industrial plants have caused consumption to double within a five-year period.

With its wide, tree-lined avenues and generously laid-out parks, the city today has the reputation throughout China of a "desert oasis". That is true only for the "shorter" half of the year, however. In the extremely cold, long winter months, the town is filled with the typical smell of coal, and clouds of grey smoke billow down the streets.

Around 400 old coal-fired boilers, which date back to the time when the town was established, are scattered across the entire urban area. When the temperature in winter drops to below -40°C , they are supposed to supply the inhabitants with the heat that they so urgently need. Boiler attendants wearing thick, fur-lined, padded cotton coats to protect themselves against the bitter cold shovel

the coal into the boilers. The heavy physical work, which places their health at risk and is physically dangerous, is sometimes made easier by semi-automated equipment.

"That kind of heat generation is not easy on resources," says Frank Steege, a KfW Entwicklungsbank technical expert in power plant construction. "The old coal-fired boilers generate heat very inefficiently and their soot emissions are extremely harmful for human health. They also produce CO_2 , which is harmful to the climate."

"Generally, nothing is more efficient than a system which produces heat and electricity at the same time," the energy expert says. "Far better use of fuel leads to far fewer emissions than if electricity or heat alone is generated. Combining the two is the most sensible thing to do."

In order to cover the growing need for heat and electricity efficiently and in a climate friendly manner, a central combined heat and power station is therefore being built in Shihezi with the help of KfW Entwicklungsbank. It is the first district heating project to be given support under Financial Cooperation in China. Besides electricity, district heating and hot water for the inhabitants of Shihezi, the station is also to supply steam for industrial

companies in the textile processing, chemical and pharmaceuticals sectors.

The firing system in the new heat and power station works far more efficiently than the old small coal-fired boilers and filters also ensure that environmentally harmful emissions are reduced considerably. That is a noticeable improvement not only for the global climate but also for the climate in the town itself – a particular advantage for everyone who suffers from respiratory problems.

Considerable value is placed on environmental protection in this project. Around 8% of the entire amount invested is used to treat flue gas and to prevent the production of wastewater or to treat it in such a way that it can be reused. Depending on its composition, some of the ash which remains when the coal is burned can be used, for example, in road construction or cement factories. To prevent the remaining ash from being blown off the landfill sites to which it is taken, the sites are greened or fitted with sprinkler systems.

Overall, EUR 208 million has been provided for the construction of the heat and power station; it has been financed from the executing agency's own funds, a loan

from a local bank and KfW Entwicklungsbank. KfW is providing a total of EUR 50 million in support to connect the power station to the electricity transmission network, to extend the district heating system and to supply industrial companies with steam. In addition, the entire plant is being equipped with modern measurement and control systems.

In development cooperation projects, KfW Entwicklungsbank always checks for the possible need for knowledge transfer. For this project it proved possible to send district heating experts from the public utility company in Leipzig. They were to analyse the district heating supply system planned by the operator and make improvements where necessary. The aim was to ensure that the project could serve as a model for future energy projects. The move was a success as the proposals and suggestions made by the experts from Leipzig met with such a positive response from the executing agency that the intention is now to include them in the planning of other systems.

Thanks to the new district heating plant in Shihezi, 180 of the 400 coal-fired boilers will soon be redundant. "The town," Frank Steege says, "will then also be able to live up to its reputation as a desert oasis in winter, too."

Economic growth and environmental pollution go hand in hand in many parts of China.



DEG: PREPARING THE GROUND FOR RENEWABLE ENERGY – PUBLIC PRIVATE PARTNERSHIPS TO TRAIN SPECIALIST STAFF.

There is a large potential market for renewable energies in Asia. In many cases, however, there is a shortage of skilled knowledge and little awareness of what environmentally friendly energy production means. In order to take full advantage of the large economic and ecological potential, it is vital for employees to be properly trained. As part of the Public Private Partnership Programme (PPP) financed with BMZ funds, DEG is involved in public private partnerships in three Asian countries – China, Vietnam and Indonesia – to set up courses to train specialist staff in the field of renewable energies and is at the same time improving the conditions for further private investment.

In **China** the aim is also to raise the government's industrial air pollution control standards. Air pollution is a serious problem in that country. It is estimated that one million people die every year from respiratory diseases and a further 400,000 suffer from chronic bronchitis. "Design institutes" – which mainly include engineering companies and architects' firms – are in charge of invitations to tender for dust extraction systems. The institutes were originally sub-units at government ministries. Their approval is needed for all plans to build new systems. They monitor compliance with industrial standards and the development of new ones.

That is, however, precisely the problem – the tender specifications no longer complied with industrial requirements. As part of a public private partnership, DEG therefore commissioned a manufacturer of dust extraction systems from Bielefeld – Neotechnik GmbH – to train specialist staff at eight to ten institutes in China.

Over a period of two years, Chinese specialist staff from the institutes and other authorities and associations will be trained to prepare invitations to tender for state-of-the-art systems. In seminars lasting several days, they learn everything there is to know about the technology and how to use it. To make sure that the training will have a lasting impact, Chinese engineers are also being trained in Germany to train others in this field. They will then train the Chinese partners.

Vietnam is planning an extensive increase in its use of renewable sources of energy – particularly sun and wind. At present they represent less than 1% of the total electricity generated in that country. However, so far there is nowhere in Vietnam where specialist staff can be trained in the field of wind energy in order to meet the needs of the growing market. The companies give their staff the basic knowledge that they think their employees need. There is no such thing as a regulated and well-established transfer of knowledge.

Financial support by DEG and the private German partner WAT Ingenieurgesellschaft mbH from Karlsruhe is making it possible for a competence centre, the Renewable Energy Research Centre, to be built at Hanoi University of Technology (HUT). Apart from WAT GmbH, Dresden Technical University is also a

German partner of HUT. In the future a permanent training course is to be set up here with lectures, seminars and excursions. In addition, engineers who are interested in this field should also be able to obtain further training at the university.

The syllabus of the six-month training course, which is unique in Vietnam, includes, among other things, types of renewable energies, opportunities and the potential for energy input, the theory behind wind energy, legal matters, site location and construction engineering. As nothing can replace practical experience, experiments will also be conducted on small wind power plants, wind data measured and analysed, and technical operation management practised. The project also includes a “train the trainer” component. Vietnamese experts are first trained in Dresden before they take over training at HUT when the project is over.

In **Indonesia** 40,000 solar systems have already been fitted by a number of providers but not all of them are proving as successful as expected. That sometimes has to do with the lack of understanding about the need to maintain the systems – among specialists and end-users alike. In order to resolve that problem, DEG is financing specialised staff training in solar energy and targeted PR work with the aim of informing people about solar systems and ways of saving energy.

Vietnamese renewable energies specialists in the making.



CLIMATE CHANGE INCREASES WATER STRESS – PROVIDING RELIEF THROUGH MORE EFFICIENT RESOURCE MANAGEMENT.

North Africa and the Middle East are two of the most arid regions in the world. Nowhere else is there less water per capita and nowhere else is water running out as quickly as it is there. If swift action is not taken, the available amount of water per capita will continue to decrease significantly and will have halved by 2050. On the one hand, this is due to economic and population growth but, on the other hand, migration movements in the Middle East are also having an impact. Climate change will also exacerbate water stress in this region. Given the growing shortage of water, the already crisis-ridden Middle East potentially faces large-scale conflicts over the use of this precious liquid.

For many years, KfW Entwicklungsbank has therefore provided the countries in this region with support to counter-act water stress effectively and prepare themselves for the consequences of climate change. In essence, this means ensuring, in a socially, ecologically and economically responsible manner, that the population has access to drinking water on a long-term basis. The high levels of water loss need to be reduced and an efficient wastewater management system introduced. As far as irrigated agriculture is concerned, there are initiatives to introduce water-saving technologies and to encourage the conservation of water through an appropriate tariff policy. Simply stated, the region needs to find, purify and save more water. To that end, Jordan's precarious water balance is to be relieved by measures to purify wastewater. Egypt is renovating its complex irrigation system and, with the support of KfW Entwicklungsbank, it is investing in the modernisation and restoration of the crucial barrages on the Nile. This also involves using the Nile's hydropower to generate energy, which, in turn, reduces CO₂ emissions considerably.

Finally, KfW Entwicklungsbank, together with other sponsors, is in dialogue with the partner countries to try to establish a sector policy that will encourage more efficient management of the water resources which are currently so scarce.

Water is the most precious commodity in North Africa and the Middle East.



JORDAN ADAPTS ITS WATER POLICY TO CLIMATE CHANGE.

A region is said to be running out of water when an individual has access to less than 500 cubic metres of water a year. In Jordan, each person currently has access to only 150 cubic metres, which means that Jordan is one of the top ten most arid countries in the world. Consequently, too much groundwater is being consumed, the effects of which are visible to the naked eye. Springs are running dry or are too salty, and the volume of water flowing into the Dead Sea is only about a quarter of what it once was, with the result that the water level is sinking by approximately one metre every year. This constitutes out-and-out water stress.

In Jordan, water is scarce everywhere. Farmers lack the water to irrigate their fields, while trade and industry do not have enough water for production. The population does not have enough drinking water – not just occasionally, but on a permanent basis. In some parts of the country, water comes out of the tap only once or twice a week. Poorer households that cannot afford a water tank have to buy water from travelling salesmen, which is very expensive. Furthermore, the water that they use is not really fit to drink and thus causes disease.

Jordan is not the only country in the region where water is running short. Its neighbouring countries, Israel and Syria, are also plagued by water stress. They are using too much water from the headwaters and tributaries of the River Jordan. Consequently, the river is literally drying up. Climate scientists also predict that the water supply in the River Jordan catchment area will be affected by the decreases in rainfall, as well as by longer, hotter and even drier summers. However, Jordan's farmers are already struggling with much smaller harvests.

Jordan's plight is multifaceted and its survival is becoming increasingly dependent on water. Yet, day by day, this precious resource seeps away unused into the ground because the water pipes are leaking – an appalling

fact given the dramatic shortage of water. Approximately 45% of Jordan's water supply is lost through leakage. This situation is also exacerbated by the fact that there is no procedure for purifying wastewater, which is left to drain into the ground without being treated, thus endangering the groundwater occurrences that are already few and far between.

One of the country's key challenges is therefore to implement a water-saving management system that is ecologically sustainable. However, Jordan does not have to cope with this precarious situation on its own as it receives support from German Development Cooperation. Germany is the second largest donor in the water sector and has developed an entire water management plan with Jordan. This plan makes provision for major water policy reforms in conjunction with a massive extension of the required infrastructure. On behalf of the German government, KfW Entwicklungsbank has provided a total of EUR 183 million for this project. This investment should support the country in its efforts to combat the consequences of climate change in the long term.

The first fruits of success are already visible. Much less water is seeping away, as the leaking pipes have been replaced or repaired. Consequently, although water volumes have remained the same, more water is reaching the people. More and more wastewater is being treated in mechanical-biological treatment plants and then used for irrigated agriculture – saving precious drinking water. KfW Entwicklungsbank is promoting this purification and reuse of wastewater in the northern Jordan Valley.

"There is a great opportunity here to significantly improve the precarious water balance and thus also mitigate the conflict between water users," says Jürgen Welschhof, who is in charge of Financial Cooperation activities by KfW Entwicklungsbank in the water sector in Jordan and its neighbouring countries. Agriculture in

Jordan requires around two-thirds of the country's water resources and is thus in fierce competition with private households and industry.

An improved infrastructure as well as better water and wastewater management are essential, but these alone are not enough to ease the critical water supply situation. A fundamental reform of the water sector is also required. German Development Cooperation is therefore also supporting Jordan's government in its efforts to establish new laws and tariffs that will encourage, and

require, users to change their attitude towards water. This essentially means that water prices will increase, as EUR 0.10 per cubic metre, which is what it once used to cost, is too little; it neither covered the costs of extraction nor encouraged people to save water. Now, agricultural enterprises, which previously never had to pay anything at all for their water, will have to pay a ground-water charge.

"Jordan is gradually becoming aware that water is a precious and rare commodity," said Welschhof.

THE BACKBONE OF AGRICULTURE – EGYPT RENOVATES ITS NILE BARRAGES AND IRRIGATION SYSTEMS.

From a bird's eye view, the Nile looks like a green ribbon flowing through the desert. For thousands of years, it has breathed life into everything, especially agriculture, because almost nothing would grow in Egypt without its water. Almost all of Egypt's freshwater comes from the

Nile. A complex irrigation system enables farmers to produce two harvests a year, but the Nile's barrages are showing signs of age and are in a bad state of repair. If they were to fail, a national disaster would ensue.

The Naga Hammadi barrage safeguards irrigated agriculture in Egypt.



90% of Egypt's population has settled along the life-giving River Nile, either on its narrow banks or in the Nile Delta. However, this area constitutes only around 5% of the country's entire land. The rest is desert. Therefore, Egypt's farmers really need to economise on their water consumption. Obtaining sufficient water from the Nile is an essential precondition for them to be able to feed themselves and their families, as well as produce food for export. After all, agriculture accounts for 17% of the country's gross domestic product and 12% of its export revenue.

Time and again throughout its history, Egypt has suffered massive droughts. However, since the completion of the Aswan High Dam in 1971, the country has had a permanent reservoir, Lake Nasser. This means that the fluctuations in the Nile's headwaters can be offset, both during the year and between wet and dry years.

If the two Aswan Dams constitute the heart of the complex irrigation system, the Nile barrages are its backbone. In addition, the system comprises several hundred pumping stations, over 100,000 kilometres of irrigation canals and an area-wide underground drainage system to avoid water logging and soil salination. The barrages ensure that the Nile's water level remains constant and is sufficient to fill the irrigation canals, which then branch out into small field canals, from where the farmers can fetch their water – but only at certain times.

To ensure that this sophisticated irrigation system also continues to function in the future, the systems either require urgent modernisation or need to be rebuilt, as the large barrages are in a worrying state of repair. This also applies to the three barrages in upper and middle Egypt, namely Esna, Naga Hammadi and Assiut. Given that sections of them are over 100 years old, they have certainly done their job, but now their technology is antiquated and worn out.

Over many years, the Egyptian government has therefore gradually been replacing the three barrages,

modernising the network of canals and extending the drainage system. On behalf of the German government, KfW Entwicklungsbank has contributed over EUR 400 million to this project. 1997 saw the completion of the renovation of the Esna barrage, which was carried out without German funding, and now in 2008 the new second barrage, Naga Hammadi, will start operation. This new barrage was partly funded by KfW Entwicklungsbank, which provided EUR 128 million, and replaces the old system which was completed in 1930.

"Luckily in good time," says Thomas Linsenbold, one of KfW Entwicklungsbank's technical experts who is seeing the project through. "A malfunction in the ailing barrage would have threatened the livelihood of hundreds of thousands of farmers and their families living along the Nile." The new barrage will now serve approximately 310,000 agricultural enterprises on both sides of the Nile, which between them farm 300,000 hectares of arable land. The fields are planted with sugar cane, wheat and clover in the winter, while in the summer, corn and sorghum are grown – the livelihood of hundreds of thousands of rural families.

According to Linsenbold, "the renovation of the barrage has given the population an added bonus, in that this project has involved the building of a new bridge across the Nile. The old bridge, along with the barrage, was no longer safe for heavy goods traffic. And since there are only very few bridges across the Nile and the next bridge suitable for goods traffic is often hundreds of kilometres away, the new bridge connects not just parts of a city, like in our country, but entire regions."

The new barrage also has a hydropower plant with a capacity of 64 megawatts. It generates approximately 460 gigawatt hours of green electricity per year – enough to cover the average annual consumption of more than 200,000 Egyptian families. Compared with a thermal power station, the hydropower plant avoids approximately

270,000 tonnes of CO₂ emissions each year and therefore contributes to the global efforts to protect the environment. Through the sale of its unused CO₂ reduction certificates, Egypt receives additional funding for its own investments.

The hydropower plant not only feeds electricity into the national grid; it also supplies people in the region. Villages which have never before had any electricity now have access to a safe, sustainable and clean electricity supply.



Hundreds of thousands of smallholders can irrigate their fields with water from the Nile.



THE REGIONS.

Eastern and South-Eastern Europe/Caucasus.

CLIMATE FRIENDLY WAY OUT OF THE ENERGY PLIGHT – RENEWABLE ENERGIES AND ENERGY EFFICIENCY.

In the past, the transition countries of Eastern and South-Eastern Europe were some of the greatest squanderers of energy in the world. Ukraine, for example, needed 19 times more energy than Germany to produce just one US dollar of GDP. Global energy consumption would fall by 7% if energy efficiency in Eastern Europe were the same as in Western Europe. However, the transition countries in Eastern and South-Eastern Europe and in the Caucasus are struggling with the legacy of a planned economy. Poor maintenance and investment shortages have left those countries with an obsolescent, inefficient and expensive energy infrastructure.

The efficiency rate of the power plants is low and the losses in the electricity transfer and distribution networks, for example, are very high. Every watt of energy lost means that more energy has to be generated to cover needs. New environmentally unfriendly power stations are therefore being built although they may not really be needed. In addition, cross-border network associations, which provide reciprocal cover for national demand peaks, are still virtually unknown in the countries of Eastern and South-Eastern Europe.

The poor state of repair of the infrastructure and the wasteful treatment of energy is also harmful to the environment. With no more than 6% of the global population, Eastern Europe was responsible for nearly 12% of worldwide greenhouse gas emissions in 2004. However, the governments are now making great efforts to ensure that their energy supply systems are more efficient and more environmentally friendly and to reform them completely. South-Eastern Europe, in particular, is turning increasingly to renewable energies, especially hydropower. The countries are being given the support of KfW Entwicklungsbank and DEG to pursue that approach and to increase their energy efficiency. For instance, the European Fund for Southeast Europe initiated by KfW Entwicklungsbank has enabled several tens of thousands of households and businesses to finance energy saving measures through local banks.

In many countries in Eastern and South-Eastern Europe, the energy infrastructure is in a desolate state of repair.



IN BOSNIA AND HERZEGOVINA – THE FIRST WIND FARM IN THE BALKANS.

A favourable wind is blowing – literally – for renewable energies in Bosnia and Herzegovina. The conditions in the mountainous karst region in southern Herzegovina are good for a wind farm. The wind whistles unimpeded over a barren "moonscape" and the wind turbines, which stand over 100 metres tall and have a rotor diameter of 70 metres, do not disturb a single soul; there is no human settlement for miles around.

The use of wind power has unearthed new treasure in Bosnia and Herzegovina – and not just there. In the entire Balkan region, hardly any attention has been paid to air-generated energy, which has remained a fully unexploited resource. Electricity is mainly produced from coal and hydropower. The considerable potential for climate friendly, renewable energies such as wind power and solar power has been neglected and has to be developed from scratch.

There are reasons for that. The necessary infrastructure, the framework conditions conducive to promotion and financial incentives for the development are simply non-existent. Innovative enterprises which feed electricity from sustainable sources into the grids hardly receive any remuneration worth mentioning. It has so far not been worthwhile investing in renewable energies.

With the support of KfW Entwicklungsbank, that is now set to change. One of the three electricity suppliers is planning to invest in wind power. Although there is no shortage of energy in the country and Bosnia and Herzegovina even export electricity, there is a regional shortfall in Herzegovina. In the region of the energy supplier from Mostar there is an aluminium smelter, which gobbles up untold volumes of electricity. Two-thirds of the entire

energy production is consumed by industry in that region. To meet the vast needs, enterprises used to have to purchase electricity from elsewhere.

In view of the continuing increase in energy prices, the energy supplier is now changing over to wind power as it is cheaper to buy electricity from the wind farm than to import it. Compared with coal-driven or hydropower plants, wind farms are quickly erected. Within a short time they are already supplying the electricity that is so urgently needed. Compared with imported electricity, which is mainly produced from lignite, these clean power plants also save considerable volumes of CO₂ emissions – and thus help to protect the global climate.

The wind farm will cost around EUR 78 million. On behalf of the German federal government, KfW Entwicklungsbank is providing a low-interest loan to cover some EUR 72 million of that amount from Financial Cooperation funds. The remaining EUR 6 million is being provided by the energy supply company.

The planned Mesihovina wind farm in southern Herzegovina will be the first of its kind in the country – pioneering the further development of climate friendly wind power. It will comprise 22 wind turbines with a total installed capacity of 44 megawatts. Their annual output of around 125 gigawatt hours could supply nearly 30,000 households with climate friendly electricity. The wind power will, however, be supplied mainly to manufacturing and other industries. The wind farm is also directly stimulating the economy: it is opening up new areas of business in the region and additional ways for local enterprises to generate an income – as a supplier or service provider for the wind farm, for example.

SO THAT THE HEAT GETS THROUGH – SERBIA MODERNISES ITS DISTRICT HEATING SYSTEMS FOR GREATER EFFICIENCY.

Although the homes of many people in Serbia were connected to a district heating network, they were not necessarily warm. Just under one-fifth of the 2.4 million households in Serbia use district heating systems – but the heat rarely got through properly and was exceptionally expensive to produce.

Many homes remained ice cold in winter because the district heating system literally failed to deliver the goods. Leaking pipes and antiquated boilers led to high energy losses in the dilapidated district heating networks. Despite an unacceptably high input of energy, there was hardly enough heat to cover basic needs. So as not to freeze to death, people set up additional electric heaters. That placed a burden not only on the household budget but also on the climate. Apart from the emissions caused by heat generation, harmful substances such as CO₂, sulphur

dioxide and nitrogen oxide were also by-products of the electricity generation.

Serbia was light years away from being able to benefit from the major advantages of a modern district heating supply system over electric heating – high energy efficiency and the dramatic reduction in the emission of harmful substances by more than half. In addition, without long-term public subsidies, the district heating systems were economically doomed. There were not even any incentives or opportunities for most consumers to save heat.

Acting on behalf of the German government, KfW Entwicklungsbank has therefore been helping Serbia since 2001 to upgrade its district heating system, first as an emergency measure in Belgrade, Niš and Novi Sad. The federal government is providing around EUR 20 million in

subsidies. The heat supply company (Toplanas) can therefore repair its network, procure or repair measuring instruments and provide training for its staff.

In the currently ongoing third phase of the programme, the focus is on finding long-term rather than short-term solutions for the problem. For KfW Project Manager Peter Brinkmann that means breaking out of the vicious circle which has led to the decay of the Serbian district heating system. "The lowest tariffs bled Toplanas financially dry. The Serbian government is, however, simply not in a position to provide appropriate subsidies. At best, wages and fuel supplies can be financed, but there is no money

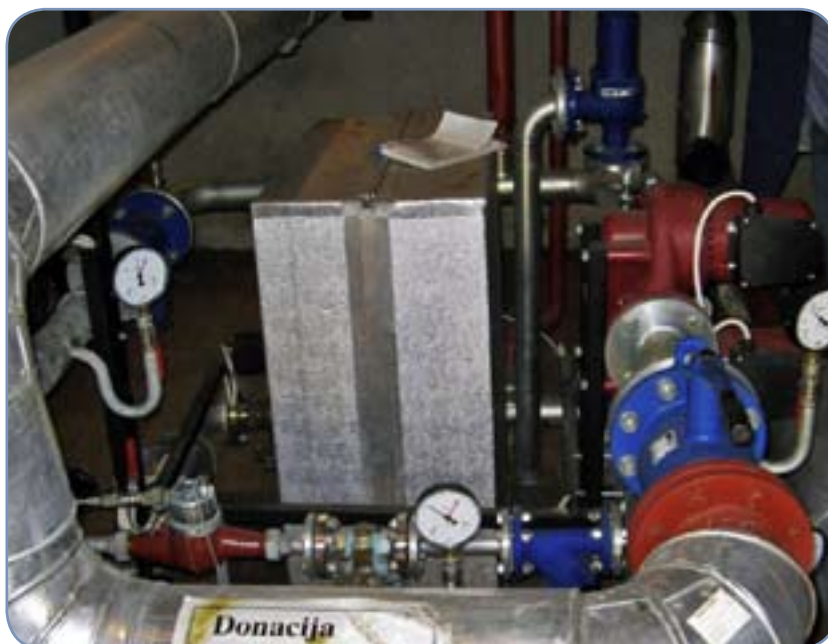
The switch and control centre for the district heating network in Belgrade.



for maintenance – let alone new investments. The people are, in turn, not willing to pay higher tariffs for a poor supply."

In accordance with the wishes of the Serbian government, the entire district heating sector is now being reformed. KfW Entwicklungsbank is providing German expertise to enable Toplanas to make both technical and economic improvements to its business. Thanks to the introduction of tariffs that are based on consumption and the installation of thermostats and heat meters, people at last have incentives and opportunities to save energy – and the basic supply is guaranteed. That gets the companies out of the red and makes them independent of government subsidies. However, as the Serbian Deputy Minister for Energy Vladan Karamarkovic points out, participation in the programme is not open to everyone. "The willingness of Toplanas and municipalities to change obsolete structures and to implement reforms," he says, "is for us the primary condition for their participation in this phase of the programme. That is the only way for us to solve the basic problem over the long term."

To cover the necessary investment, the country is being given a low-interest loan of EUR 22 million. It is being lent on to six towns and communities, Niš, Kragujevac, Kraljevo, Pirot, Sombor and Zrenjanin. The Serbian government is providing a further EUR 15 million. Heating plants will thus be upgraded or repaired and distribution



New efficient piping stops energy loss in district heating.

networks and transfer stations put back in working order. All in all, around 345,000 households and 21,000 commercial and industrial customers will benefit – more than 80% of all district heating customers. The substantial decrease in harmful emissions during district heating generation will mean that far less damage is done to the climate and the environment.

The heat now reaches the households without some of it being lost on the way. Because of the greater efficiency in heat generation and distribution, scarcely any more fuel needs to be used. "Especially in winter," says Peter Brinkmann, "there is a considerable improvement in the quality of life of the Serbian people. That is particularly true for poor people, who were previously scarcely able to afford alternative sources of heat."

DEG: SMALL ENVIRONMENTALLY FRIENDLY HYDROPOWER PLANTS FOR SOUTH-EASTERN EUROPE.

The blue barrier tape which stretches for kilometres on both sides of the road is a familiar sign for everyone travelling to the new hydropower plant construction site near Donji Vakuf in central Bosnia. Leaving the road could cost someone their life as the forest area around the Prusačka River is still not free of mines – 12 years after the end of the war. This legacy of the war in the surrounding district also has consequences for the small Mujada hydropower plant. For example, special protective facilities have been installed to prevent mines that have been washed into the river from being caught up in the turbines.

The problems associated with the construction of a power station which will use renewable sources of energy are not always purely technical and a purely technical solution is therefore not appropriate. A lot of patience and work to gain people's trust is needed to overcome fear and suspicion because the countries of South-Eastern Europe have little previous experience of renewable energies – apart from the large hydropower plants. Government plans in Bosnia and Herzegovina, Macedonia, Bulgaria and other countries mean that that is now set to change.

DEG is also increasingly involved in expanding the electricity supply in those countries and in promoting the generation of electricity from sustainable energies such as water or wind power. In June 2007 DEG and PCC SE, a company from Duisburg, set up a joint venture which has since commissioned technical advisers to evaluate various sites and takes part in the tender procedure. The environmental and social guidelines to which PCC DEG Renewables GmbH is committed refer explicitly to the needs and sensitivities of the local people and are in line with top international standards.

Of the 60 hydropower stations in Macedonia for which firms were invited to tender, the newly founded holding company acquired 10 locations in 2007. Where it does not tender in its own name, it participates in local project executing agencies which have been awarded concessions to construct hydropower plants but cannot carry out the work on their own. The holding company has a share, for example, in a company with four concessions in Bosnia and Herzegovina. The total volume of first stage investment amounts to EUR 80 million. PCC DEG Renewables contributes one-quarter of that amount, EUR 20 million. The remainder is being raised through participation by German or local banks.

In the first phase until 2011, PCC DEG Renewables is thus planning around 30 smaller hydropower projects, each of which can produce between 0.5 and 5 megawatts of electricity. Spread over many small power plants, the aim is to install a total of 40 megawatts of electricity. These run-of-river hydropower plants, which are built directly in the rivers, cause very little damage to the natural environment compared with large barrages. At the current per capita rate of electricity consumption in the South-Eastern European countries, the capacity of a typical small hydropower station is enough to supply around 5,000 people with electricity.

The DEG portfolio currently includes a further seven hydropower station projects in Brazil, China, India (2), Nepal, Peru and Uganda.



5. COUNTERACTING CLIMATE CHANGE WITH INNOVATIVE INSTRUMENTS.

MAKING CLIMATE CHANGE FINANCIALLY VIABLE – KYOTO AND THE KFW BANKENGRUPPE'S CARBON FUND.

The Kyoto Protocol has given industrialised countries the opportunity to reduce CO₂ emissions not just "at home". Its "flexible mechanisms" enable them to buy CO₂ certificates through suitable, climate-friendly investments in other industrialised and developing countries and at the same time to reap the benefits of the progress made in those countries. The idea is simple – in terms of global climate protection, it is of no relevance where emissions are reduced as long as they are reduced and the process is as cost-effective as possible.

The lion's share of the required reduction in emissions must be achieved through measures in the industrialised countries. However, the Kyoto Protocol makes provision for an additional three mechanisms designed to help industrialised countries to achieve their agreed emission reduction targets by bringing down the cost of the reduction process. The best known of these three instruments is emissions trading. A country is allocated emission rights according to the national reduction target set under the Kyoto Protocol. If it meets this target exactly, it uses up 100% of its emission rights. If, however, a country reduces

its emissions to a level below its Kyoto target, it can sell its excess emission rights to another country that has not managed to achieve its reduction target.

The other two Kyoto mechanisms, the Clean Development Mechanism (CDM) and Joint Implementation (JI) are project-based mechanisms. The CDM enables an industrialised country or an enterprise based in an industrialised country with reduction commitments to buy emission credits – referred to as "certified emission reductions" (CERs) – generated by a project in the developing country concerned, which it can then have credited to its account. The number of credits corresponds to the amount by which the project has managed to reduce emissions of CO₂ or other climate-damaging gases.

The aim of the CDM is not only to reduce emissions in a cost-effective manner, but also to help developing countries to establish a climate friendly economy through the transfer of technologies. Joint Implementation covers projects between partners from two industrialised countries that have both agreed to an emissions reduction target under the Kyoto Protocol.

EU EMISSIONS TRADING.

The EU Emissions Trading Scheme is the world's first multinational emissions trading system and is regarded as the forerunner of a possible global system within the framework of the Kyoto Protocol. Since 2005 all EU member states have developed an annual national allocation plan (NAP) stipulating the volume of greenhouse gas emissions that each larger installation in the respective

country may release over a specified period (for example 2005–2007). If an enterprise's emissions exceed its allowance, it has to buy emission rights or it risks being fined. Emission rights can be bought on the stock exchange, for example. However, enterprises can also buy emission credits generated by projects in order to be able to fulfil their commitments.

THE KFW CARBON FUND – BUYING EMISSION CREDITS WORLDWIDE.

Through its Carbon Fund, which it set up in 2004, KfW buys emission credits generated by environment and climate protection projects in developing and transition

countries on behalf of European enterprises. By using efficient technologies, these projects avoid the emission of greenhouse gases, such as CO₂, and, by virtue of these

reductions, earn emission credits, which are recognised in the EU Emissions Trading Scheme.

KfW has therefore compiled a portfolio of various projects, including, for example, biogas plants in Nepal, hydroelectric power plants in India, wind farms in Egypt or landfill gas projects in Brazil. In doing so, it draws on KfW Entwicklungsbank's decades of experience of working with developing countries. KfW buys certificates generated by those projects and transfers them to the fund participants.

Everyone stands to gain. Enterprises can fulfil their commitment to avoid greenhouse gas emissions more cost-effectively than through the equivalent avoidance measures in their own country. Project executing agencies benefit from additional funding and long-term agreements with KfW, which give them a more reliable basis for their planning. For the fund participants, there is very little risk involved in investing in the Carbon Fund, as they only have to pay if the projects actually provide credits.

Fund volume of almost EUR 200 million. Owing to the great demand, KfW increased the first tranche of its Carbon Fund from EUR 50 million to around EUR 84 million. By the end of 2007, this sum had been used to buy

approximately 8.2 million emission credits certified by the UN Climate Secretariat. Those credits had been generated by around 25 environmental projects in developing countries and corresponded to an 8.2 million tonne reduction in CO₂ emissions. Over the years up to 2012, they will be distributed among the 24 enterprises participating in the fund to enable them to meet their own commitments.

In 2007 KfW and the European Investment Bank launched the EUR 100 million EIB/KfW CO₂ Programme, which constitutes the second tranche of the KfW Carbon Fund. In order to accommodate the needs of smaller enterprises in particular, this product offers a guaranteed delivery option whereby KfW guarantees the provision of emission certificates. It also enables project operators in the host countries to receive advance payments on the purchase agreements for certificates and thereby helps them to eliminate funding bottlenecks.

In addition, the opportunity to buy certificates will probably still exist after 2012, as KfW is using its own funds and working with the European Investment Bank (EIB) to develop the EIB Post 2012 Carbon Fund. This new instrument will give projects a long-term basis for their planning.

AN EXAMPLE FROM BRAZIL: REDUCTION CREDITS FOR EUROPEAN ENTERPRISES.

On behalf of European buyers, KfW has bought several million tonnes of CO₂ equivalents from the Brazilian enterprise, Biogás Energia Ambiental, under a purchase agreement that runs until 2012. This is already the second purchase deal with the successful biogas enterprise. The suppliers of the reduction credits are two of the largest landfill sites in Brazil, Bandeirantes and San João, which are both located in the city of São Paulo and emit the highly climate-damaging greenhouse gas, methane. Biogás Energia Ambiental has developed a procedure whereby the gas, instead of being discharged into the atmosphere, is used as fuel for a 20 megawatt power station at each of the landfill sites. Since January 2004, the Bandeirantes power station has been producing 170,000 megawatt hours a year, which is sufficient to cover the energy requirements of 100,000 Brazilian households. By June 2007, the Bandeirantes landfill site had already avoided methane emissions that would have created the same greenhouse effect as two million tonnes of CO₂. The UN Climate Secretariat granted the scheme an equivalent number of emission credits.

A RELIABLE PARTNER TO GUIDE YOU THROUGH THE CERTIFICATION PROCESS – DEG AND TÜV RHEINLAND MAKE IT EASY FOR INVESTORS TO ENGAGE IN CLIMATE PROTECTION.

In collaboration with a subsidiary of the TÜV Rheinland Group in Cologne, DEG has set up Kyoto Coaching Cologne within the framework of the PPP Programme. This network guides potential investors through the complex process for getting their climate protection project certified. It targets enterprises that wish to tap additional sources of income generated under the Clean Development Mechanism for the financing of environment and energy projects in developing countries. The network supplies the expertise while DEG provides the funding and manages the certification process.

The way in which this "coaching" works is demonstrated by an example from China, where in spring 2007 DEG successfully concluded a CO₂ certification process for the production of approximately 100,000 emission certificates. This project involves a 16 megawatt wind farm financed by DEG. Owing to the current legislation on foreign investments in CDM projects in China, the wind farm's emission reductions were not recognised as certified emission reductions (CERs) under the Kyoto Protocol and therefore could only be traded on the "voluntary market". Buyers of certificates on the voluntary market are primarily enterprises which, within the framework of their climate protection commitments, declare themselves "climate neutral" or wish to offer their clients this option – as a few airlines do. On the voluntary market too, reduction commitments are usually certified in the form of verified emission reductions (VERs). DEG organised and supported the certification process for this project between August 2006 and March 2007. In addition, it initially financed the cost of the certification process – which amounted to approximately EUR 40,000 – on behalf of the wind farm operator, assumed the entire risk of the project and found a buyer for the VERs. The purchase agreement covers the period from 2004 to 2007.

During this period, the wind farm will reduce CO₂ emissions by approximately 120,000 tonnes. From the sale of the 120,000 VERs at a market price of between EUR 3 and EUR 6 per certificate, the wind farm's operators will already receive considerable additional earnings. At the beginning of 2008, the CO₂ reductions will be analysed once again. A further 20,000 credits are then expected to change hands.

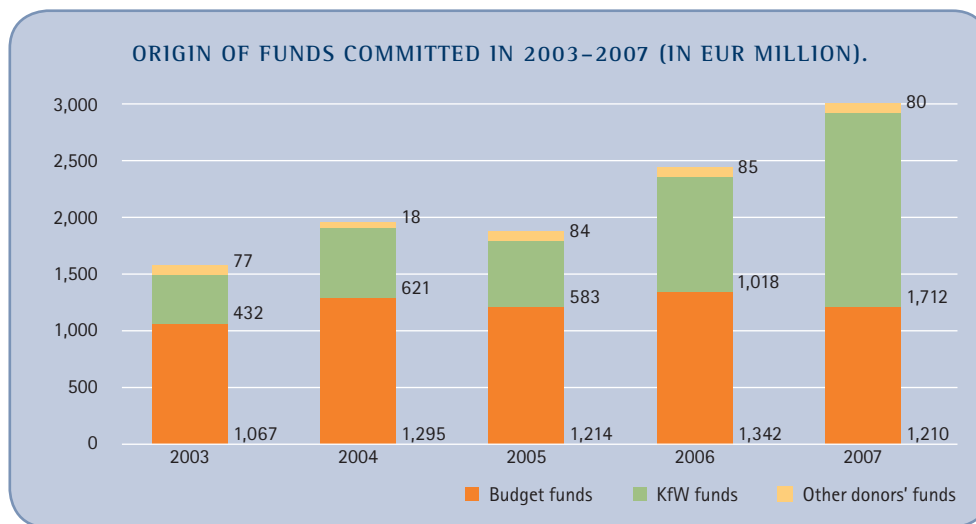


6. ACTIVITIES IN FIGURES.

KFW ENTWICKLUNGSBANK ACTIVITIES.

In 2007 the financing commitments of KfW Entwicklungsbank went up by more than 20% compared with 2006 to EUR 3,002 million (2006: EUR 2,483 million). That makes

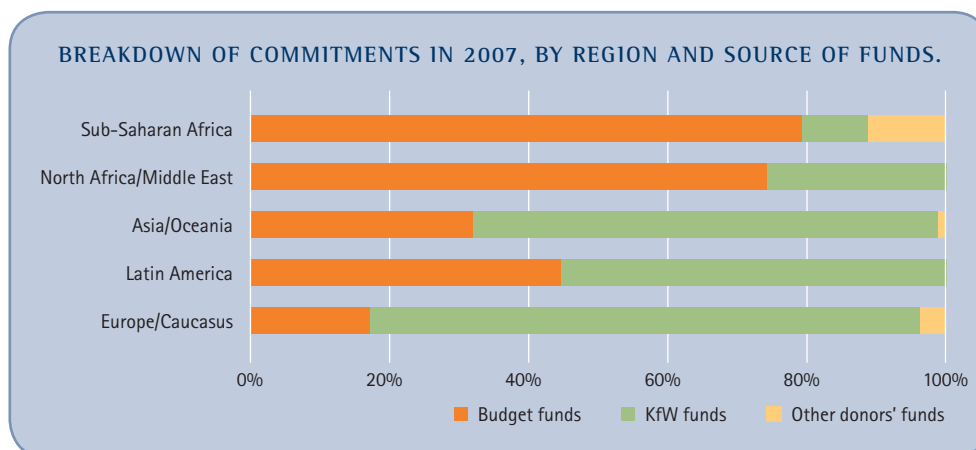
2007 another record year for Financial Cooperation. Since 2003 promotional support for our partner countries has thus virtually doubled.



This huge increase is mainly due to the fact that KfW now provides a considerable volume of its own funds for Financial Cooperation. At EUR 1,712 million (2006: EUR 1,018 million), the share of those funds increased from 41% to 57% in 2007.

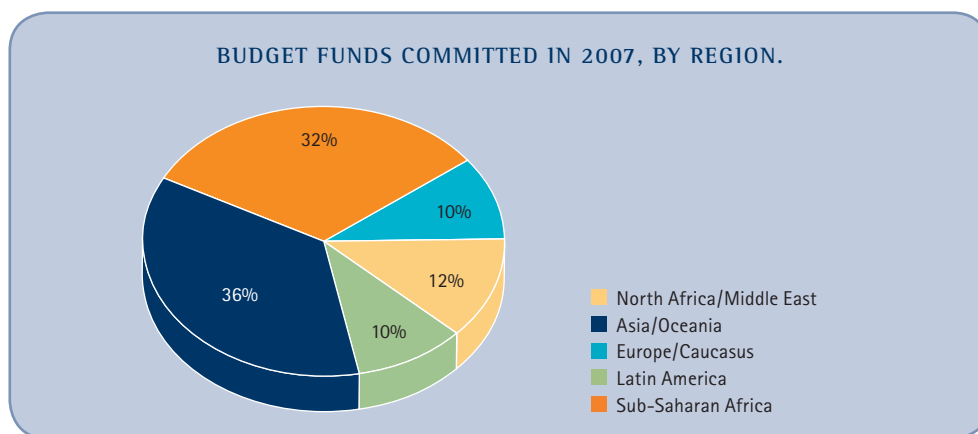
Commitments by region. The increasing use of KfW's own funds has a double benefit for the partner countries. More efficient partner countries which have made such development progress that they are now no longer dependent on subsidies can draw on a wide range of appropriate,

low-interest financing alternatives for their development projects. At the same time, that allows the limited funds available as government subsidies to be channelled more intensively to the poorest parts of the world. The growth of commitments in Asia/Oceania and Sub-Saharan Africa illustrates this particularly well. In 2007 an increase of 46% in financial support for Asia/Oceania was achieved without having to resort to more government funds; the commitments from government funds for Sub-Saharan Africa rose distinctly by 25% compared with 2006.



In terms of the increase in total commitments, the lead was taken by Europe/Caucasus with a 58% increase in new commitments compared with 2006, followed by Sub-Saharan Africa with 35%, Asia/Oceania

(34%) und Latin America (12%). By contrast, fewer commitments were made in North Africa/Middle East than in the previous year; their share of total commitments was 7%.



Commitments by DAC promotional area. Again in 2007, the social and economic infrastructures, which each took a share of 33% of the new commitments, were the two most important priority sectors, followed by the financial sector, which accounted for 26% of the funds committed.

Our partners' great need for support to develop the social infrastructure was directly reflected in our promotional activities, which include work to improve the water supply and wastewater and refuse disposal (EUR 431 million). Many of these projects – especially in arid regions – are of relevance in terms of adaptation to climate change. In addition, support was also provided for programmes in the area of health care and population policy (EUR 172 million) and measures to strengthen the state and civil society and decentralisation (EUR 274 million). A further EUR 102 million was committed for projects which give people better access to schooling and vocational training.

The economic infrastructure, especially the energy

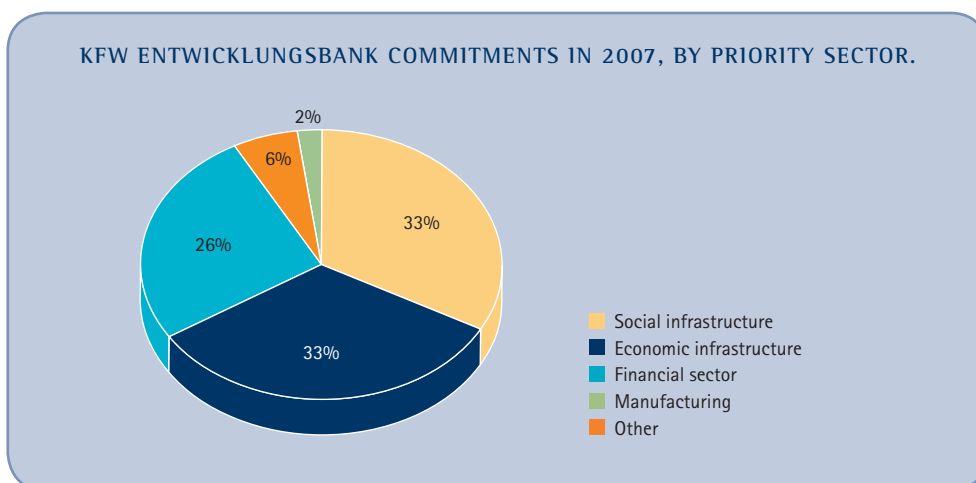
and transport sectors, is of major importance for climate protection. Besides improving the supply of energy in disadvantaged regions, one goal in the energy sector is often to promote the use of renewable energies or energy efficiency projects. In 2007 EUR 479 million was committed for those purposes. In the field of transport, EUR 490 million was committed first and foremost for climate friendly investment in public transport systems.

Our involvement in the financial sector covers both the long-term promotion of micro, small and medium-sized enterprises and the strengthening of the local financial markets and creates key structures and framework conditions for economic reforms and the establishment of a market economy in the partner countries. In 2007 EUR 775 million was provided for those purposes.

In accordance with Development Cooperation objectives, poverty reduction is a primary objective in KfW Entwicklungsbank's projects. Of our projects, 58% make a direct or indirect contribution to poverty reduction. An

important role is also attributed to gender equality as around the world it is mainly women who are affected by

poverty. In 2007 49% of all approved projects had gender equality as the main or an important secondary objective.

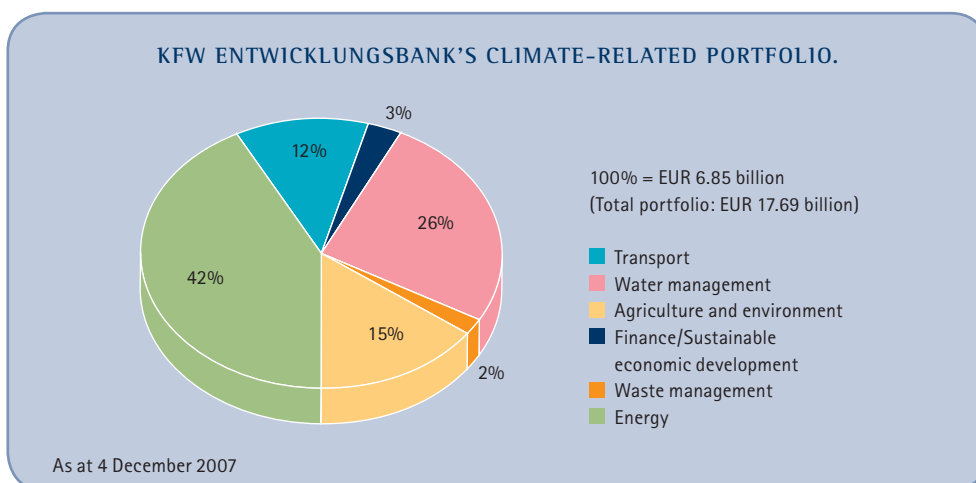


New environmentally related commitments. Over the past ten years, EUR 7 billion was committed on behalf of the German federal government for cross-sectoral projects which were directly geared to environmental and resource conservation or which had that as a major secondary objective.

Climate-related portfolio. However, projects other than those that specifically target environmental and resource conservation and the prevention of greenhouse gas emissions are related to climate change. Many projects provide our partner countries with support to make the

inevitable adjustment to the consequences of global warming – for example, by setting up sewage treatment plants or implementing irrigation projects in regions where water is scarce.

At the end of 2007 39% of all ongoing projects in the KfW Entwicklungsbank portfolio were concerned with preventing greenhouse gas emissions or the adjustment to the consequences of global warming. We add weight to the federal government's determination to give German Development Cooperation a pioneering role in the field of climate and environmental protection.



DEG ACTIVITIES.

As the positive developments in the underlying economic and political conditions in developing and transitions countries extended to private investment, too, DEG was again able to expand its financing business substantially in 2007 despite the global financial market crisis. Its new commitments amounted to EUR 1,206 million (2006: EUR 930 mil-

lion) – the highest volume in more than 45 years of business and the equivalent of a 30% increase on the year and twice the annual volume in 2004. The share of risk participations amounted to EUR 75 million (2006: EUR 12 million). No new financing commitments were made under fiduciary business with BMZ budget funds.



The total project portfolio rose by 17% to EUR 3.6 billion; it was spread over 493 enterprises in 84 partner countries. DEG thus further consolidated its position as one of the largest European development finance institutions specialising in the promotion of the private economy in developing and transition countries.

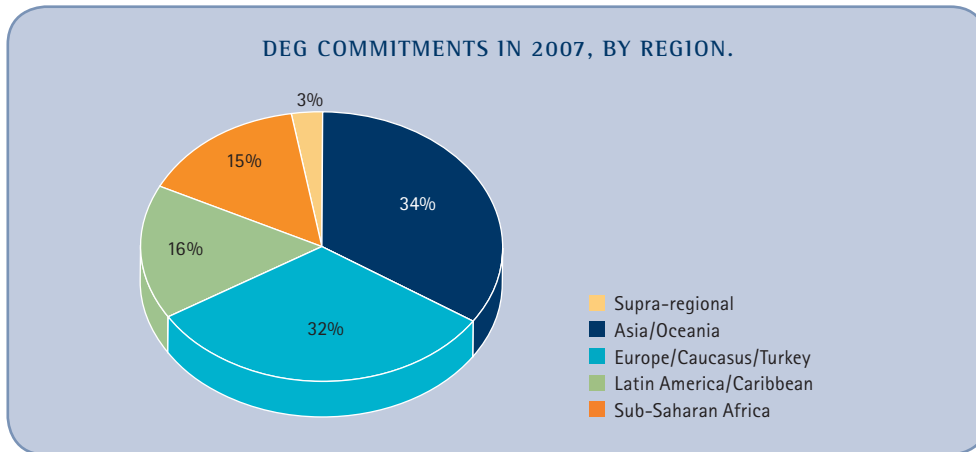
In the year under review, DEG committed EUR 215 million to finance participations. The share of the loans amounted to EUR 958 million, of which EUR 234 million was given a quasi-equity (mezzanine) structure. The use of venture capital – vital to business and development – in the form of private equity and mezzanine finance thus amounted to nearly EUR 450 million, representing 37% of new business (2006: 30%). EUR 33 million was committed for guarantees.

Commitments by region. In 2007 financing commitments covered investment projects in 44 countries (2006: 40). For the first time, funds were made available for investment in Angola, the Republic of Moldova and Uzbekistan. The least developed countries (LDC) in which projects were co-financed in the year under review included Bangladesh and Cambodia in Asia as well as Angola, the Democratic Republic of Congo, Madagascar, Malawi, Rwanda, Senegal, Uganda and Zambia on the continent of Africa.

Owing to the stable economic dynamism, the geographical focus of the new business was again on Asia, where financing commitments amounted to EUR 407 million (34%), followed by the Europe/Caucasus/Turkey region with EUR 385 million (32%) and Latin America with

EUR 194 million (16%). Project enterprises in Sub-Saharan Africa were given commitments totalling EUR 187 million (15%), the highest annual financing volume provided by

DEG for that continent to date. Two supra-regional projects accounted for EUR 33 million (3%). No new business was conducted in North Africa and the Middle East in 2007.



Distribution by sector. In 2007 DEG expanded its commitment in the partner countries' financial sectors further. The EUR 596 million committed in those areas corresponded to a share of almost 50% of new business. Priority was given to cooperation with local and regional commercial banks in order to ensure that small and medium-sized enterprises at decentralised locations also had access to long-term investment capital and that the promotion of housing construction could be expanded. Key components of the financial sector promotion were also sustainable contributions to construction and good governance.

Manufacturing companies were the beneficiaries of EUR 280 million provided by DEG (23% of its financing commitments). Here the main investments were in the field of food, chemicals, vehicle construction and paper. There was a further marked increase in infrastructure projects, which climbed to a new record of EUR 218 million; telecommunications, energy and water supply, transport and warehousing as well as health care accounted for 18% of the new commitments. In the energy sector, the

use of renewable forms of energy played a key role. Other services – including commercial enterprises and an industrial estate – represented 8% of new business. The share of agricultural output (excluding the agricultural processing industry) was 1% of the promotional volume; together with raw materials processing projects, especially in the food industry, agricultural business represented, at 7%, a far higher overall commitment.

Technical assistance. In the year under review, BMZ budget funds amounting to EUR 1.1 million were used to reinforce the developmental impact of DEG finance. DEG again also contributed EUR 1.2 million of its own funds. In 2007 this financed a total of 36 accompanying measures intended to strengthen the economic, social and ecological sustainability of the projects.

Public private partnerships. As part of the BMZ's Public Private Partnership (PPP) Programme, DEG financed 47 projects in the year under review. In all, EUR 10.3 million in government funds was provided. The partner enterprises and third parties invested EUR 17.9 million. In 2007

a project volume of EUR 28.2 million was thus achieved. The share of PPP projects with direct environmental relevance amounted to some 60%. That figure does not take account of the many PPP projects which have a wide range of indirect environmental effects.

A further priority of PPP co-financing in 2007 was the provision of funds for HIV/AIDS projects in Africa. DEG placed the entire EUR 0.8 million that it had earmarked for such projects and gave approval for seven projects which intensify the work to combat AIDS in various countries in Africa, reaching several hundreds of thousands of people. From the PPP study facility, in 2007 approval was given for nine financing agreements totalling EUR 0.7 million to support project preparing measures in the areas of the infrastructure and the financial sectors worth EUR 0,9 million.

Environmental and social standards. In addition to a project's profitability and developmental efficacy, its environmental and social acceptability is a decisive criterion for DEG support. For DEG's financing business, in addition to national rules, international standards are the main decisive orientation benchmark. In the year under review, the World Bank Group's environmental standards were

incorporated into all financing agreements. Similarly, all co-financed enterprises undertook to comply with the core labour standards of the International Labour Organization (ILO). A positive impact on the environment is to be expected in 37% of the new projects, particularly as a result of the use of renewable raw materials or sources of energy, a more efficient use of resources, the use of environmentally friendly production technologies and the manufacture of environmental goods. Positive climate protection effects are built into 13 new projects. The funds provided for that purposed amounted to EUR 89 million.

From 2008 onwards, the IFC's performance standards will be used as the general benchmark for the environmental and social evaluation of all DEG projects. These standards have become established as the new market benchmark and have now been taken on board by most international private project financiers (referred to as "Equator banks") as the basis of appraisal in defined project financing measures.

DISBURSEMENTS BY KFW ENTWICKLUNGSBANK AND DEG.

KfW Entwicklungsbank increased its disbursements for projects in developing and transition countries by 37% in 2007 to EUR 2,038 million (2006: EUR 1,485 million). The volume of government funds went up to EUR 1,143 million (2006: EUR 1,095 million) while its share in total commitments decreased from 74% to 56%. In 2007 German business had a 60% share of FC disbursements by KfW Entwicklungsbank (excluding market funds) for supplies and services which were put out to international public tender. In particular, the sectors of consultancy (36%), mechanical engineering (23%), electrical engineering (16%) and

construction (13%) benefited most from the disbursements. KfW Entwicklungsbank concluded no debt rescheduling agreements in 2007.

Disbursements by DEG rose as a result of the further strong 9% expansion of the financing business to a total of EUR 858 million (2006: EUR 788 million). Of that sum, EUR 69 million (2006: EUR 12 million) was channelled to third-party risk sub-participations in project companies. In the fiduciary business, disbursements amounting to EUR 0.2 million were made (2006: EUR 0.3 million).

7. STATISTICAL ANNEX.

1. COMMITMENTS BY KfW ENTWICKLUNGSBANK AND DEG IN 2003–2007 (IN EUR MILLION).

	2003	2004	2005	2006	2007
KfW Entwicklungsbank					
FC grants*	740	703	751	864	803
FC standard loans	227	271	307	280	277
FC development loans	287	782	492	704	579
Total budget funds	101	321	157	198	131
Total KfW funds	186	461	336	507	448
FC promotional loans	246	160	247	512	1,263
Other donors' funds	77	19	84	85	80
Total	1,577	1,934	1,881	2,445	3,002
DEG**	558	601	702	930	1,206
Total (KfW + DEG)	2,135	2,535	2,583	3,375	4,208
Memo item: Interest rate subsidies	17	10	19	38	37

*Differences compared with previous years are due to adjustment of the interest rate subsidies.

**System change: All figures include risk sub-participations.

Differences in the totals are due to rounding.

2. SOURCE OF COMMITMENTS BY KfW ENTWICKLUNGSBANK IN 2003–2007 (IN EUR MILLION).

	2003	2004	2005	2006	2007
Budget funds	1,067	1,295	1,214	1,342	1,210
KfW funds	432	621	583	1,018	1,712
Other donors' funds	77	18	84	85	80
Total	1,577	1,934	1,881	2,445	3,002

Differences in the totals are due to rounding.

3. TOTAL COMMITMENTS IN 2007, BY REGION (IN EUR MILLION).

	KfW Entwicklungsbank	DEG	Total	Share (%)	From budget funds (KfW Entwick- lungsbank only)	Share (%)
Asia/Oceania	1,368	407	1,775	42	438	36
Sub-Saharan Africa	485	187	672	16	385	32
Europe/Caucasus	676	385	1,061	25	116	10
North Africa/Middle East	202	0	202	5	150	12
Latin America	271	194	465	11	121	10
Supra-regional	0	33	33	1	0	0
Total	3,002	1,206	4,208	100	1,210	100

Differences in the totals are due to rounding.

4. COMMITMENTS IN 2007, BY COUNTRY (IN EUR MILLION).

RANKED ACCORDING TO BMZ BUDGET FUNDS.

Rank	Country	BMZ budget funds	KfW funds	Other donors' funds	DEG
1	India	90.34	276.84	0.00	77.06
2	China, PR	83.92	403.71	0.00	99.29
3	Afghanistan	68.12	0.00	0.61	0.00
4	Tanzania	63.00	0.00	50.00	0.00
5	Mozambique	60.56	0.00	0.00	0.00
6	Palestinian Territories	36.79	0.00	0.00	0.00
7	Zambia	34.18	0.00	0.00	7.54
8	Nepal	29.70	0.00	0.00	0.00
9	Vietnam	29.13	0.00	0.00	0.00
10	Burkina Faso	29.00	0.00	0.00	0.00
11	Mali	28.48	0.00	0.00	0.00
12	Kyrgyzstan	28.22	0.00	0.00	0.21
13	Egypt	28.07	16.11	0.00	0.00
14	Yemen	24.73	0.00	0.00	0.00
15	Bangladesh	23.81	14.47	0.00	16.58
16	Jordan	21.91	0.00	0.00	0.00
17	Albania	21.20	0.00	0.00	10.00
18	Indonesia	21.00	0.00	0.00	21.81
19	Colombia	20.16	0.00	0.00	0.00
20	Serbia	20.00	20.00	0.00	0.00
21	Niger	20.00	0.00	0.00	0.00
22	Bolivia	18.61	0.00	0.00	0.00
23	Kazakhstan	17.67	61.14	0.00	76.16
24	Malawi	17.63	0.00	0.00	1.50
25	Chile	16.23	19.23	0.00	0.00
26	Namibia	14.80	0.00	0.00	0.00
27	Philippines	14.74	34.11	0.00	0.00
28	El Salvador	13.99	0.00	0.00	11.16
29	Morocco	13.35	26.00	0.00	0.00
30	Ethiopia	13.00	0.00	0.00	0.00
31	Benin	10.50	0.00	0.00	0.00
32	Uzbekistan	10.20	0.00	0.00	25.00
33	Ghana	10.00	0.00	0.00	25.58
34	Lebanon	10.00	0.00	0.00	0.00
35	Nigeria	10.00	0.00	0.00	50.47
36	Macedonia	9.73	0.00	0.00	0.00

4. COMMITMENTS IN 2007, BY COUNTRY (IN EUR MILLION).

RANKED ACCORDING TO BMZ BUDGET FUNDS.

Rank	Country	BMZ budget funds	KfW funds	Other donors' funds	DEG
37	Paraguay	9.20	0.00	0.00	0.00
38	Uganda	9.15	11.18	4.30	24.55
39	Madagascar	9.00	0.00	0.00	3.00
40	Mexico	8.69	62.55	0.00	13.37
41	Montenegro	8.50	44.00	0.00	0.00
42	Syria	8.00	0.00	0.00	0.00
43	Pakistan	7.50	0.00	0.00	63.53
44	Ukraine	7.30	23.99	0.00	40.82
45	Cameroon	7.00	0.00	0.00	0.00
46	Armenia	6.90	2.08	0.00	7.40
47	Tunisia	6.88	10.23	0.00	0.00
48	Cambodia	6.00	0.00	0.00	23.19
49	Dominican Republic	5.50	0.00	0.00	0.00
50	Kenya	5.15	0.00	0.00	4.49
51	Bosnia and Herzegovina	5.11	0.00	0.00	15.00
52	Guinea	5.00	0.00	0.00	0.00
53	Chad	5.00	0.00	0.00	0.00
54	Rwanda	4.75	0.00	0.00	4.23
55	Peru	4.50	7.56	0.00	28.22
56	Burundi	4.50	0.00	0.00	0.00
57	Laos	4.40	0.00	0.00	0.00
58	Mongolia	3.00	0.00	0.00	0.00
59	Togo	3.00	0.00	0.00	0.00
60	Congo, DR	1.75	0.00	0.00	8.24
61	Moldova	1.70	0.00	0.00	5.00
62	Lesotho	1.50	0.00	0.00	0.00
63	Senegal	1.46	0.00	0.00	21.25
64	Turkey	0.50	0.00	0.00	116.37
65	Azerbaijan	0.38	30.00	0.00	12.21
66	Croatia	0.00	167.61	0.00	0.00
67	South Africa	0.00	25.00	0.00	9.13
68	Panama	0.00	14.96	0.00	0.00
69	Georgia	0.00	10.87	0.00	5.59
70	Mauritius	0.00	8.91	0.00	0.00
71	Belarus	0.00	2.40	0.00	0.00
72	Angola	0.00	0.00	0.00	6.82

4. COMMITMENTS IN 2007, BY COUNTRY (IN EUR MILLION),
RANKED ACCORDING TO BMZ BUDGET FUNDS.

Rank	Country	BMZ budget funds	KfW funds	Other donors' funds	DEG
73	Gabon	0.00	0.00	0.00	3.23
74	Sri Lanka	0.00	0.00	0.00	0.35
75	Argentina	0.00	0.00	0.00	13.14
76	Brazil	0.00	0.00	0.00	54.00
77	Costa Rica	0.00	0.00	0.00	7.49
78	Ecuador	0.00	0.00	0.00	10.16
79	Guatemala	0.00	0.00	0.00	13.94
80	Honduras	0.00	0.00	0.00	11.15
81	Nicaragua	0.00	0.00	0.00	17.48
82	Uruguay	0.00	0.00	0.00	5.83
Supranational		76.19	418.81	24.74	234.74
Total		1,210.28	1,711.75	79.65	1,206.27

5. TOTAL COMMITMENTS IN 2007 (IN EUR MILLION), BY DAC PROMOTIONAL AREA.

	KfW Entwicklungsbank	DEG	Total	Share (%)
Social infrastructure	979	24	1,003	24
Economic infrastructure	978	195	1,173	28
Financial sector	775	596	1,371	32
Producing sector	77	298	375	9
Other	193	93	286	7
Total	3,002	1,206	4,208	100

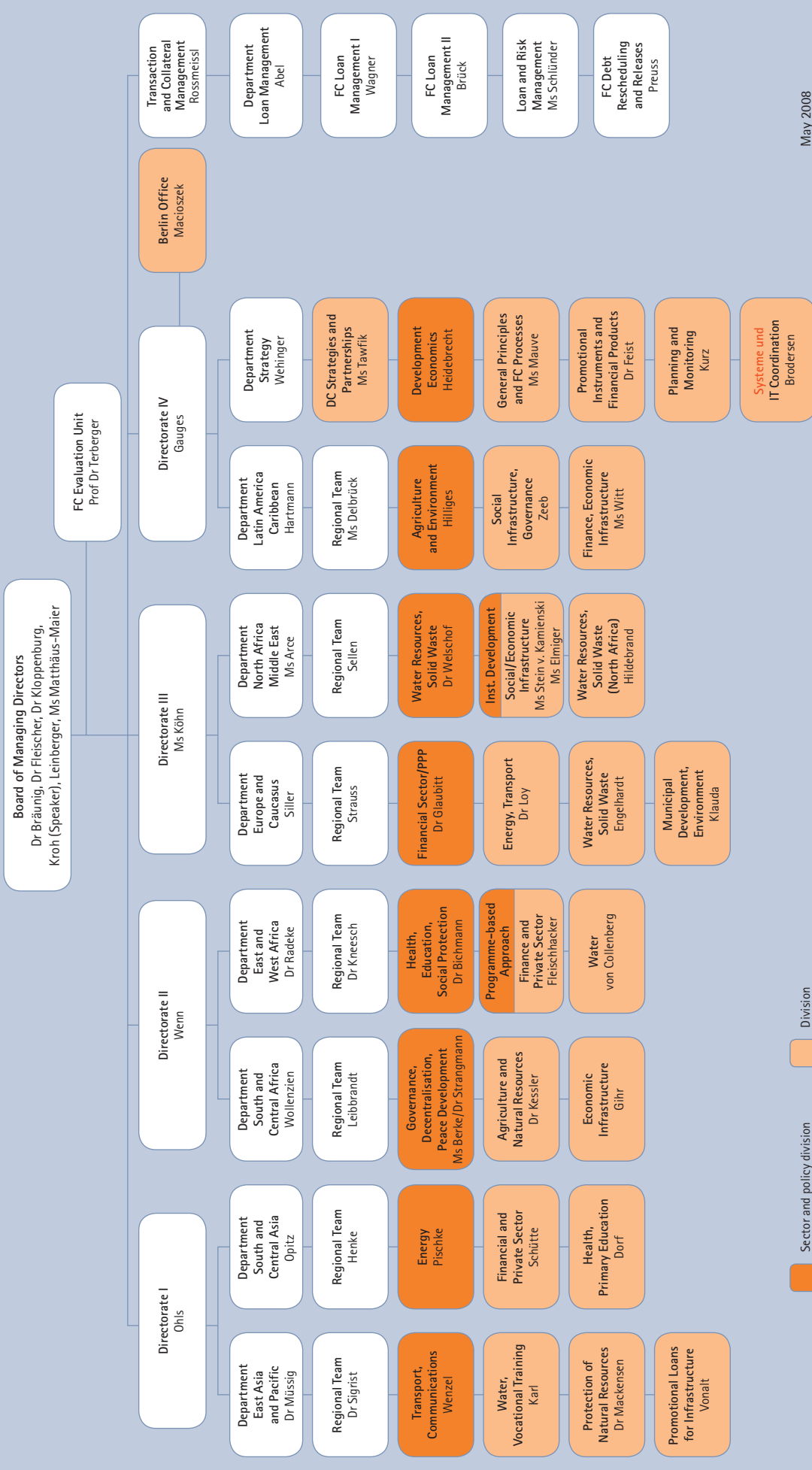
6. KFW ENTWICKLUNGSBANK COMMITMENTS, BY BMZ PRIORITY AREA (IN EUR MILLION).

BMZ priority area	2006		2007	
	EUR million	Number	EUR million	Number
Democracy, civil society and public administration	118	19	172	14
Peace development and crisis prevention	18	3	4	2
Education	85	13	94	13
Health, family planning, HIV/AIDS prevention	267	33	172	19
Drinking water supply, water management, sanitation/solid waste management	399	49	373	44
Food security, agriculture/fishery	65	9	47	14
Environmental policy, conservation and sustainable use of natural resources	111	15	114	19
Economic reform and development of a market economy	631	74	904	88
Energy (including energy efficiency and renewable energies)	258	22	514	29
Transport and communications	270	12	493	9
Other, non-attributable	223	15	114	17
Total	2,445	264	3,002	268

7. DEG COMMITMENTS, BY SECTOR (IN EUR MILLION).

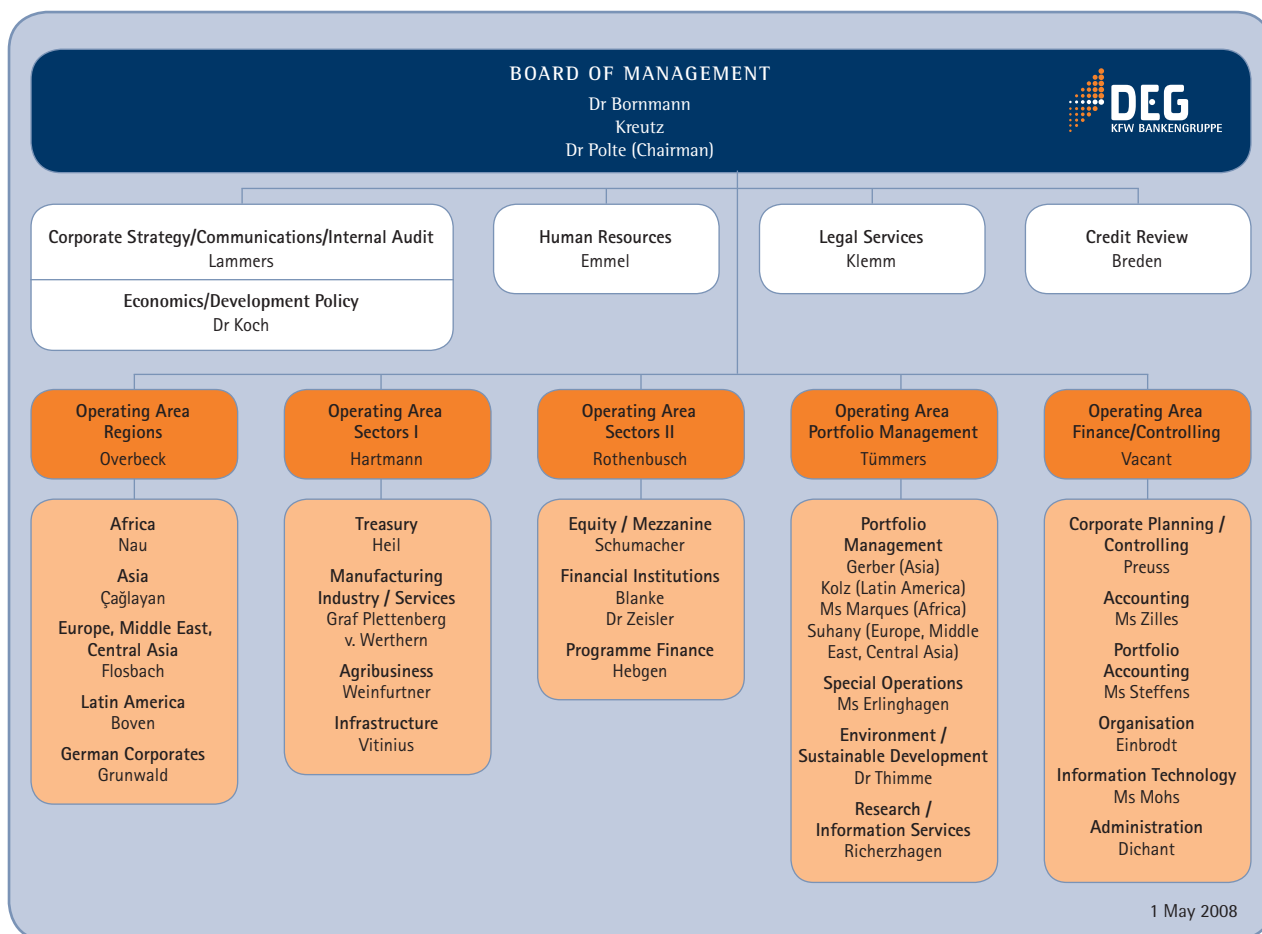
Sector	2006		2007	
	EUR million	%	EUR million	%
Producing sectors	313	34	298	25
Agriculture, forestry, fishery	37	4	16	1
Manufacturing, raw materials, mining, construction	275	30	282	23
Economic infrastructure	180	19	195	16
Energy sector	64	7	68	6
Transport and storage	34	4	19	2
Communications	82	9	108	9
Social infrastructure	10	1	24	2
Water supply, sanitation/solid waste management	0	0	12	1
Education	0	0	0	0
Health	9	1	11	1
Public administration	0	0	0	0
Financial sector	315	34	596	49
Other services	112	12	93	8
Trade and tourism	67	7	51	4
Real estate, leasing, corporate service providers, etc.	44	5	42	3
Total	930	100	1,206	100

ORGANISATIONAL STRUCTURE OF KfW ENTWICKLUNGSBANK.



Sector and policy division
 Division

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KFW BANKENGRUPPE. BRANDS FOR THE FUTURE.

KfW Bankengruppe gives impetus to the economy, society and ecology worldwide. As bankers we strive to work efficiently every day. As promoters we stand for the meaning and sustainability of our actions. The proceeds from our work flow back into our promotional activities and help to secure our promotional potential in the long term. As a creative bank we not only encourage innovations, but we ourselves also develop new financing instruments for our customers and partners. Our expertise and experience are packaged as five strong brands.



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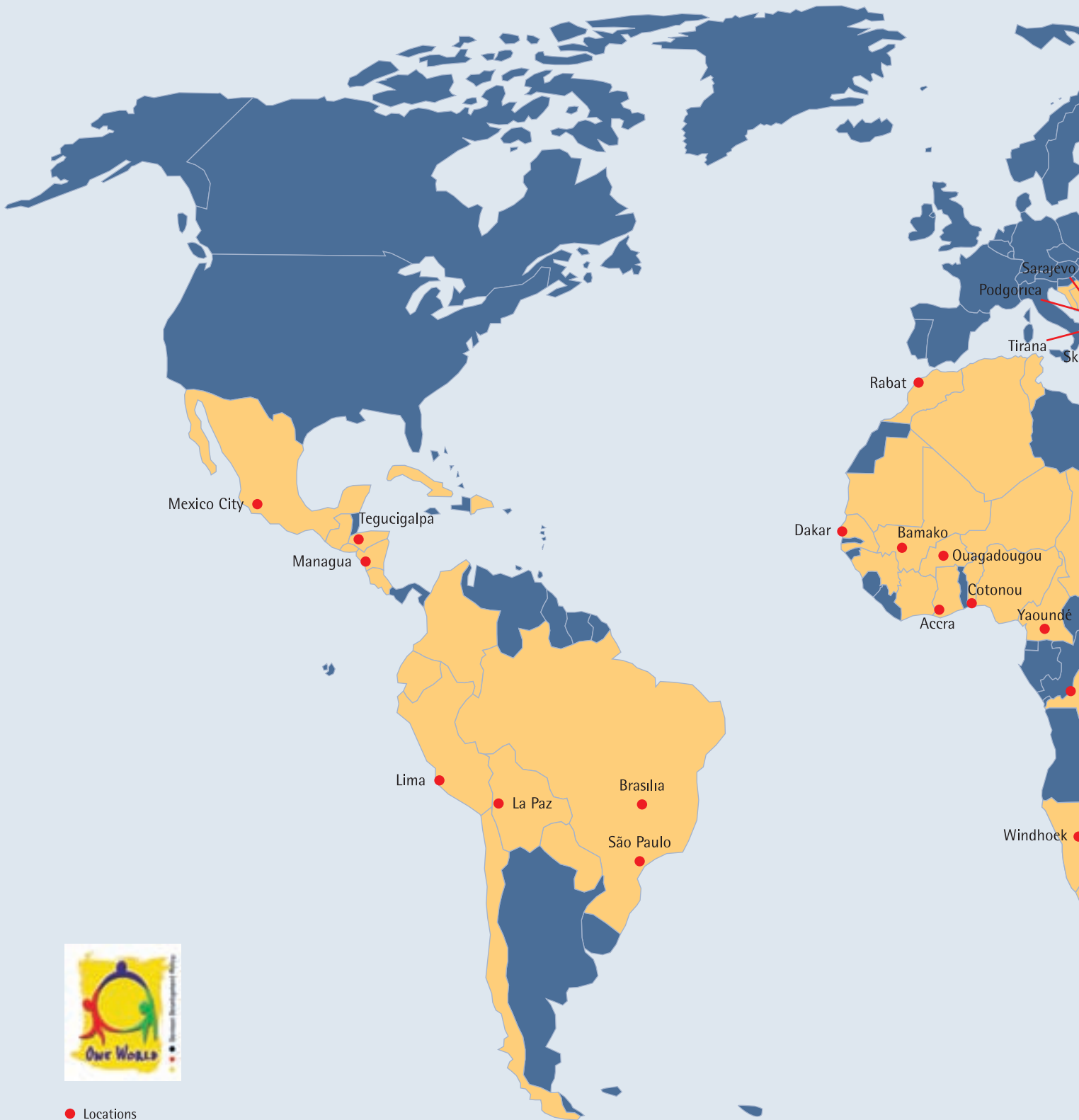
KfW IPEX-Bank: A 100% subsidiary of KfW Bankengruppe, KfW IPEX-Bank GmbH is a key provider of project and corporate finance in Germany and abroad as well as of trade and export finance. It is customer-oriented and competition driven and operates in accordance with standard market conditions. A reliable, long-term partner, it tailors its financing solutions to the specific needs of international businesses and makes a decisive contribution to fulfilling the public mission of KfW Bankengruppe. The success of KfW IPEX-Bank is due primarily to its many years of experience in the most important markets and industry sectors throughout the world.

KfW Entwicklungsbank (KfW development bank): Acting on behalf of the German federal government, KfW Entwicklungsbank finances investment and advisory services in developing countries. It generally works together with government institutions in the countries concerned. Its aim is to build up and expand a social and economic infrastructure and to create efficient financial institutions while protecting resources and ensuring a healthy environment.

DEG: As a partner of the private sector, DEG supports companies seeking to invest in developing and reforming countries. It provides financing for profitable, environmentally friendly and developmentally effective projects in all economic sectors. In this way it lays the foundation for sustainable economic growth – and gives the people in these countries a better quality of life.

KfW Bankengruppe has also become a strategic partner of business and politics. As an adviser to the German federal government we provide expertise in the privatisation of state-owned companies. On behalf of the government we also handle business for the Federal Agency for Special Tasks Associated with Unification (Bundesanstalt für vereinigungsbedingte Sonderaufgaben, BvS) and the Compensatory Fund of Securities Trading Companies (EdW).

WORLDWIDE COMMITMENT – EXTERNAL OFF



- Locations
- FC partner countries

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