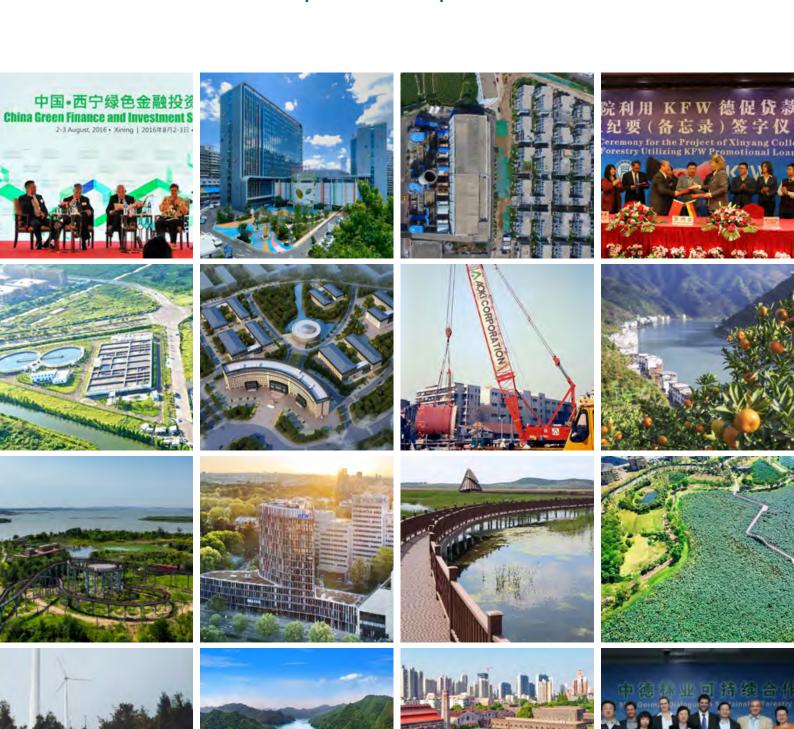
# Forty Years of China-Germany Financial Cooperation

Working Together for 40 Years to Promote Sustainable Development Cooperation



## **Imprint**

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# Welcome Address by the Chinese and German Ministries

# Welcome Address by the Federal Ministry for Economic Cooperation and Development, Germany



Jochen Flasbarth
State Secretary in the
Federal Ministry for
Economic Cooperation
and Development

A wind park, a modern urban mass transportation system, contributions to public health systems in the provinces – these are just a few examples of the great impact German-Chinese financial cooperation has had over the last 40 years, many of which were among the first in China.

Since Financial Cooperation between our countries started in the mid-1980s, we have successfully implemented many joint projects. These projects have contributed significantly to economic and sustainable development in China and to the protection of global public goods, such as climate change mitigation and biodiversity.

The collaboration between the German Federal Ministry for Economic Cooperation and Development (BMZ) and its Chinese counterparts has become a testimony to lasting cooperation, significant milestones and shared commitments.

Now is the time to look back and celebrate the achievements of 40 years of Financial Cooperation (FC), which has contributed to China's sustainable development. At a time when we are moving towards new, innovative forms of cooperation, for example through the Sino-German Centre for Sustainable Development, this commemorative brochure allows us to revisit key moments and highlight significant achievements over the last few decades. In all, more than 300 projects have received support totalling around 10 billion euros in loans and grants. These projects have been financed via KfW, but have also always involved substantial participation and significant contributions from the Chinese side.

The list of extraordinary projects is extensive. In the early days, projects were mainly aimed at driving economic growth. Later, the focus shifted to projects that supported China in keeping air and water resources clean, dealing properly with waste management and pollution. As such our two countries together have already tackled the kind of global issues that stand preeminent today. Further innovative projects included the implementation of advanced waste water treatment and waste disposal systems.

During the past few decades, China has developed from a low-income country and development aid recipient to one of the most significant global players – both economically and politically. And it has become a global development actor itself. China today is indispensable when it comes to finding solutions to global challenges. Together with China we want to take on joint responsibility for the protection of global common goods, such as climate change mitigation and the 2030 Agenda.

## Welcome Address by the Ministry of Finance, the People's Republic of China



Liao Min Vice Minister The Ministry of Finance The People's Republic of China

On the occasion of the 40th anniversary of China-Germany financial cooperation, under the joint guidance of the Ministry of Finance of the People's Republic of China and the German Federal Ministry for Economic Cooperation and Development, the brochure of "Working Together for 40 Years to Promote Sustainable Development Cooperation", compiled by Kreditanstalt für Wiederaufbau (KfW), is officially published, which captures the achievements of our cooperation and provides inspiration for future cooperation.

Over the past 40 years, China and Germany have worked together with innovation on international development and established a role model of win-win cooperation. So far, the German side has accumulatively supported over 300 projects totalling around 10 billion euros in China. Our cooperation covers a vast number of areas such as addressing climate change, biodiversity protection, and ecological and environmental protection, which has made positive contributions to social and economic development. With the use of the funds and the implementation of projects, we introduced advanced international ideas and expertise, and trained professional project managers as well as international specialists, which contributes to industrial innovation and high-quality development.

Looking back on the past 40 years, we have achieved fruitful outcomes with successful experience to be summarized. Looking ahead, China, as a responsible major developing country, stands ready to conduct practical cooperation with Germany and other countries in the spirit of mutual benefit in various fields relating to global issues such as climate protection, green transition, environmental governance and biodiversity protection. In this regard, China hopes that the financial departments and relevant companies of both sides can strengthen communication and exchanges, walk hand in hand in new fields for common development and jointly bring our allround strategic partnership to a new level.

## Leadership Support

In March 2024, Finance Minister Lan Fo'an emphasized at the China Development Forum that, "We will firmly promote high-standard opening-up, enhance international financial exchanges and cooperation, strengthen communication and coordination with major economies on macro policies, practice true multilateralism, deepen pragmatic cooperation with multilateral development institutions, and work together with all parties towards the same direction and make mutual achievements on a grand stage of openness and cooperation, so as to jointly promote global economic recovery and development."



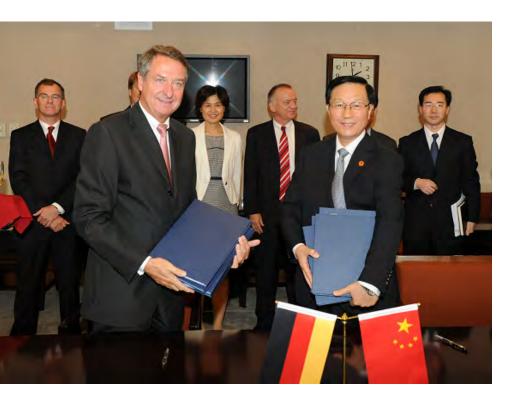


## 2023

On the occasion of the  $7^{\text{th}}$  China-Germany Inter-governmental Consultations in Berlin in June 2023, the then Minister of Finance Liu Kun met with the German Minister of Economic Cooperation and Development, Svenja Schulze. They had in-depth discussions on strengthening the China-Germany Financial Cooperation.

In June 2016, the then Minister of Finance Lou Jiwei met with the then German Minister for Economic Cooperation and Development, Dr. Gerd Müller, at the Great Hall of the People in Beijing. The two sides exchanged views on the bilateral cooperation.



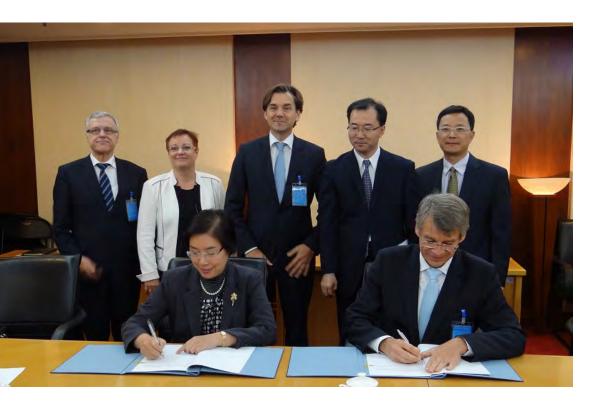


## 2010

In September 2010, the then Minister of Finance Xie Xuren met with Dr. Ulrich Schröder, the then CEO of KfW, in Beijing for signing a Memorandum of Understanding and three loan agreements.

In October 2016, the then Vice Minister of Finance Shi Yaobin met with the then State Secretary Hans-Joachim Fuchtel of the German Ministry of Economic Cooperation and Development. They discussed issues of China-Germany bilateral development cooperation.

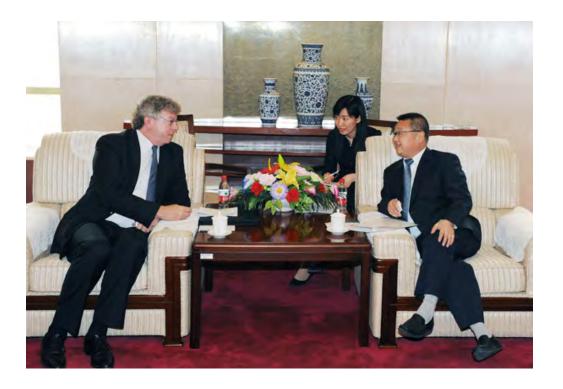


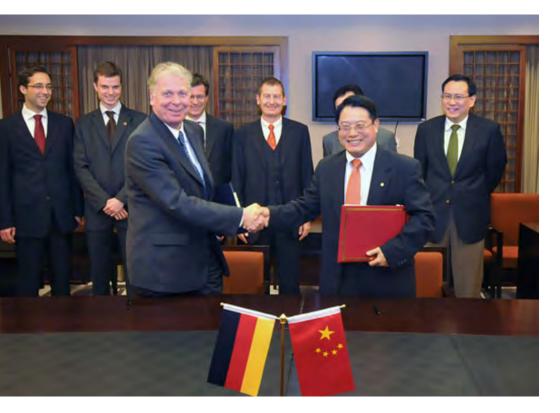


## 2015

In October 2015, the then Assistant Minister of Finance Zou Jiayi and the then KfW Board member, Dr. Norbert Kloppenburg, signed a Memorandum of Understanding.

In May 2010, the then Assistant Minister of Finance Hu Jinglin met in Beijing with Harald Klein, the then Director General of the Department of Asian and Latin American Affairs from the German Ministry of Economic Cooperation and Development.





## 2008

In July 2008, the then Vice Minister of Finance Li Yong and the then German Ambassador to China, Dr. Michael Schaefer, signed the Government Agreement on Financial Cooperation between the Government of the People's Republic of China and the Government of the Federal Republic of Germany for the year 2007 in Beijing.

In 2004 Ingrid Matthaeus Meyer, the then CEO of KfW, and Dr. Norbert Kloppenburg, the then Member of the Board of KfW, visited China for discussions and project inspections.



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## 1980's

Impression from a mission of KfW to China in the mid-eighties with the then CEO of KfW, Dr. Gert Vogt.

Forty Years of China-Germany Financial Cooperation

## Overview of China and Germany Financial Cooperation

Over the past 40 years, China and Germany cooperated and established a win-win model in international development cooperation. This brochure looks back on the journey and fruitful result of China-Germany Cooperation in supporting sustainable development. So far, the Germany side has accumulatively supported over 300 projects, with a total volume of around 10 billion Euros. Our cooperation covers a vast number of areas, including biodiversity protection, addressing climate change, environmental protection, energy efficiency, infrastructure, etc., which has made positive contribution to sustainable development.

China-Germany Financial Cooperation began in the mid-eighties of the last century. Germany was an early partner country of China. The German Ministry for Economic Cooperation and Development (BMZ) also held the first government negotiations in these years. On the Chinese side, the Ministry of Commerce (MOFCOM) was in charge in the initial years, but that responsibility for the financial cooperation later fell to the Ministry of Finance (MoF).

The annual negotiations led to allocation of new funds for the bilateral cooperation. They also determined which projects would receive support and in what amount. The venues alternated between China and Germany and the negotiations were usually prepared for through more informal government consultations.

Both sides agreed on which sectors to promote, and the Chinese side was invited to provide project proposals from those sectors. From time to time, both parties agreed to make changes to the promoted sectors – for example the protection of biodiversity was not part of the agenda several decades ago.

The core content of the protocol of the government negotiations for financial cooperation was transferred into a Government Agreement. With the signing of the Government Agreement, the ownership of the funds was legally transferred from Germany to China.



One of the First Meetings in the Early Eighties.

However, German commitments were always made under the condition that an appraisal with a positive outcome would be carried out by KfW. This confirms to the German government that the project is eligible for promotion according to the standards of development policy. With confirmation of the appraisal results by the BMZ, KfW is authorized to conclude agreements for financing. Further implementation then lies with KfW, but it has to regularly report progress to the BMZ.

It should be noted that – apart from the first few years – all agreements for financing under China-Germany Financial Cooperation were signed between the Ministry of Finance and KfW.

Germany not only provides funds, however. Due to its agreements with the German government, KfW shares responsibility

for the success of each project. To meet this obligation, it emphasizes numerous contractual rights. Regular on-site visits, technical support from experienced consultants, and training measures are only some elements that ensure the success and sustainability of the projects. KfW has always provided much more than just money.

As a binding and worldwide regulation of the German side all supplies and services to be financed in general have to be tendered according to international standards. Funds provided then will be disbursed strictly according to the stipulations of the awarded contracts and follow the progress in the implementation of a project. With this mechanism in place funds allocated in Government Negotiations were disbursed for the implementation of the agreed-upon projects.





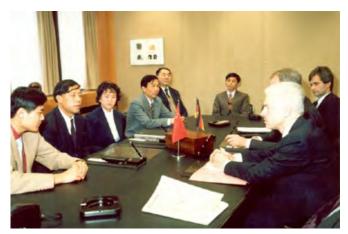
Industrial Projects in the Very Early Years.

#### © KFW

## 1985 to 1992: "Main Focus on Industry and Public Urban Transportation"

The first financing agreement on China-Germany financial cooperation was signed for the "Shaanxi No. 3 Dyeing and Printing Mill" on January 23, 1987. Industrial projects like this were common to the first few years of collaboration; other examples include the Guizhou Tyre Factory, the Jinxi Pipe Plant, or the Suihua Particle Board Plant. The intentions of the China-Germany cooperation on these projects were to improve the efficiency in using raw materials, reduce environmental pollution and improve the quality of the products. The considerable German industrial expertise played a welcome role in optimizing the project concepts.

The German side often noticed that the Chinese partners took care to disseminate positive experiences from projects to other stakeholders. This multiplication of impact was very much welcomed and fully in line with the intention of German Development Policy.



Signing of several financing agreements at KfW headquaters in 1987.

One major project from this phase of the cooperation is the Metro Line 1 in Shanghai, one of the very first underground lines in China. The loan agreement was signed in 1989. It was followed in 1996 by a second project in Shanghai, Metro Line 2. The first line ran north-south, and second east-west; together, they formed the core structure of the network, which was later expanded. Additional underground lines received financing in the years that followed, including in Lanzhou, Chongqing, Guangzhou and other cities.

The funds from Germany for the Metro Line 1 in Shanghai were mainly used for the procurement of technologies e.g.

modern trains, energy supply systems, escalators, or workshop equipment. Most of the equipment originated in Germany, manufactured by about 100 specialized, medium sized companies.

The financing of equipment in Shanghai was accompanied by substantial technical training, supported by grants. This included the provision of a train simulator for drivers. The same approach was applied to the underground project in Guangzhou. This was a real win-win situation: China received state-of-the-art technology and the German businesses acquired access to the Chinese market.



Opening Day of Metro in Shanghai.



Construction Site of a Metro Line in Guangzhou.

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The second line in Shanghai and the line in Guangzhou were the first projects in which KfW provided its own funds to accompany those from the government. The respective instruments are called mixed financing, combined financing or integrated composite financing. These funds were agreed upon in government negotiations; in fact, they were granted with the consent of the German government and also partly guaranteed by it.

In addition a credit line with a Chinese commercial bank was agreed upon in this first phase of the cooperation. This set the example for numerous other credit lines in the years to come. The funds were mainly designated for supporting small and medium sized companies and, later on, for energy-efficiency purposes. The expansion of the telecommunications network was also on the agenda in this and the next phase of the cooperation (e.g. in Shandong and Guangxi).

Particularly notable are multiple rehabilitation projects after natural disasters, as in Yunnan and Qinghai and, several years later, Inner Mongolia. This support was financed by grants, with the obvious intention to express solidarity with the affected population.

The period from 1985 to 1992 marks a remarkable economic upswing in China. By 1992, roughly thirty financing agreements had been signed, with a total amount in the range of EUR 600 million.

## 1993 to 1998: "Main Focus on Urban Development, Energy Efficiency and Natural Resources"

The main focus in this second period was energy efficiency, sewage treatment, the protection of natural resources and biodiversity, and fighting desertification. While many of the projects had a global impact, the concept of "global public goods" was not widely known. Climate change was not yet a matter of widespread concern. It should be noted that the Paris Agreement on Climate Change, for example, was only concluded in 2015. Nevertheless, numerous projects implicitly addressed global challenges.

Fully in line with this approach was the rehabilitation of a number of coal-fired power plants (e.g. in Beijing, Hangzhou and Chongqing); the aim was to improve the energy efficiency and reduce emissions. The projects also targeted the desulfurization of flue gas and the minimization of dust and sulphur emissions in order to reduce health risks for the population. This is, of course, especially important in the vicinity of plants in urban areas. One of the supported power plants in Beijing, for example, is located just seven





Construction of Desulphurisation Device and the Rehabilitation of a Power Plant in Beijing.





One of the First Wind Parks in China (Hainan).

© KFW

kilometres east of the city centre, close to the eastern third ring road. Here also, a district heating plant was rehabilitated and a calcination plant was incorporated into the project concept. This enabled the production of gypsum panels for construction purposes. Technically, it is possible to transform heavily polluted remains from the filter process into neutral gypsum. A similar approach was followed with the Yang Shu Pu thermal power plant in Shanghai and also in Tianjin (Yang Liu Qing power plant).

Another key project was the construction of two wind parks in Hainan and Zhejiang, one of the first of their kind in China. The China-Germany partners have every reason to be proud:

While the capacity of the wind mills (0.6 MW) is low by today's standards, in the mid-nineties they represented cutting-edge technology.

The economic upswing in China not only increased the demand for energy, but also for water and, consequently, the volume of industrial and household sewage. This became a special focus of China-Germany cooperation, with support for some forty modern sewage treatment plants. By today's standards, the first projects were quite simple; at the time, however, they were state-of-the-art. Today's plants have higher cleaning rates, many also have bio-digesters and better sludge disposal and sewer systems.

One of the most prominent projects promoted from this sector is the sewage treatment plant in Qingdao. The financing of the first plant and, later, several others, greatly reduced the pollution in the Jiaozhou Bay.

What makes the project in Qingdao special is the inclusion of a training centre for treatment plant staff. In the mid-nineties, knowledge and expertise on proper operation and maintenance of sewage treatment plants was limited, so both parties agreed to establish the training centre. It was accessible to students from all over China.

Another prominent example of urban development is the project for waste disposal in four southern districts of Beijing. The project financed modern garbage trucks to serve the over 2.5 million inhabitants as well as transfer stations, a compost plant and modern disposal dumps. Several years later, a waste incineration plant with the best of German standards and equipment was added to the complex in Nangong. All investments have included the expertise of German engineers and a significant emphasis on training.



Construction Site of the Wastewater Treatment Plant in Qingdao.

In this phase, the portfolio of projects also expanded to include the protection of natural resources and biodiversity as well as efforts to combat desertification. Income-generating elements for the rural population were always a core part of the respective concepts. For example, adding fruit- and nut-bearing trees protected the environment by increasing forest cover - but also offered farmers additional income from cash crops. As the year 2000 approached, the alleviation of poverty became a high priority on the development policy agenda. As a result, the impact of such projects on reducing poverty attracted increasing attention.

The green China-Germany projects in the northern provinces of the country helped establish the "Green Wall". Similar projects in southern China concentrated on the stabilization of steep slopes, for example in the Yangtze water catchment area.

One of many exceptional projects from this sector is the project "Afforestation Ningxia". All natural resource projects are quite complex, usually starting with a participatory land-use planning and the establishment of tree nurseries, the construction of simple rural roads, minimum electricity supplies for small irrigation pumps and many other components. The first of several projects in Ningxia covers an area of 8800 ha of sand dune fixation and includes 1300 ha of new windbreaks. 3600 ha of income generating fruit trees on individual farms were also planted. In addition, the Helan Mountains, with an area of 30,000 ha were declared a natural reserve area. All in all, the direct project area covers an impressive 400 square kilometres – a size common to projects like this.

This first project in Ningxia is considered particularly successful, as it also served as model project; many elements were transferred to other regions and provinces. Furthermore, the project received an award from the International Fund for Agricultural Development (IFAD), which selected it for an excursion during an international conference in Beijing. In the presence of several television teams, the Director General of the IFAD described the project "as the most visible project of this kind we have ever seen".

From 1993 to 1998, the economic upswing in China continued. In this second phase of the cooperation, nearly seventy financing agreements with a volume of in the range of EUR 1.5 billion were signed. The majority of the funding was a combination of Government and KfW financing.



Large-scale measures to combat desertification.



Impressions from rural areas.

## 1999 to 2010: "Main Focus on Rail-bound Transport, Health Sector, Small and Medium-sized Enterprises"



Final Meeting of the Appraisal Mission Hefei-Wuhan Railway Line.

© KFW

Increasing levels of development also significantly increased the demand for transportation. The main means of transportation in China, especially over long distances, is railways which capacity needed to be expanded. Given that Germany has huge technical expertise in this sector, it also provided technical support in addition to the funds from financial cooperation. Over the next ten years, numerous large projects took shape.

The first project was the electrification and rehabilitation of the railway line from Harbin to Dalian via Shenyang (950 km). The provision of advanced technology from Germany increased capacity and eased this bottleneck for further economic expansion.

This project set an example for the electrification and rehabilitation of numerous other key railway lines. Other prominent examples supported by China-Germany Financial Cooperation are the railway lines from Shenyang to Qinhuangdao and Chongqing to Huaihua (625 km). An additional project provided heavy equipment for the construction and maintenance. The upgrading of the railway line from Hefei to Wuhan also received support and was co-financed by the Austrian Government, a true joint endeavour of three countries.

One aspect that got more and more attention during this period was the impact of projects on climate-relevant emissions. Global public goods in general became a guiding principle for the cooperation, and the electrification of railway lines was fully in line with this approach.

In the first few years of the new millennium, both sides agreed to consider the health sector for the cooperation. It was a sad coincidence that, shortly thereafter, we witnessed the outbreak of SARS. Thanks to the exceptional efforts on the German and the Chinese sides, it was possible to forward urgently required respiration ventilators and other important medical equipment to Beijing within days. The funds were provided as a grant with a financial cooperation agreement. The equipment was received in a ceremony at the airport. Both sides looked upon this joint effort as a symbol of solidarity.

One key project in the health sector aimed to establish and upgrade the public health sector in ten western regions (e.g. Gansu and Inner Mongolia). Centres for disease control were set up and hospitals received advanced medical and laboratory equipment. This included testing equipment for HIV.

Numerous credit lines were agreed upon in these years, mainly focusing on the promotion of small and medium-sized enterprises.

One very successful project from this phase was the China-Germany Centre for Printing Technology in Hefei (CDAD), a training centre for technicians from printing companies. The project was organized by the German Agency for International Cooperation (GIZ) and the advanced technical equipment was financed by an FC agreement through KfW. Following the economic upswing, the demand for printed materials increased and this joint endeavour eased the lack of qualified staff.

At the end of 1999, KfW opened its office in Chaoyang District in Beijing. This eased communication among the partners and helped expedite many processes. It unquestionably helped to make the cooperation more efficient.

In this period of the cooperation the German side had introduced promotional loans, which are provided without tapping budget funds as a new financing instrument for China-Germany financial cooperation. These funds gradually substituted German government funds which were faced out.

From 1999 to 2010, the Chinese economic upswing endured. In this period, around 140 projects received support, with an amount of around EUR 3.1 billion.





Railway line construction.

© KFW



Recreation area on top of the underground wastewater treatment plant in Kunming.

© KFW

# 2011 to 2024: "Main Focus on Global Public Goods, Medical Infrastructure and Vocational Training"

This period of the cooperation is dominated by the "Promotional Loan" financing instrument, resulting from KfW sources. Projects need to be officially submitted by the Chinese Ministry of Finance to KfW, which then reports to the BMZ and requires the consent of the ministry.

One of the most prominent examples from this period is the "Air Quality Improvement Programme" in the region of Beijing, Tianjin and Hebei. The programme was designated to improve the air quality by promoting alternative and renewable energies, supporting public transport systems and reducing coal consumption. The funds were not designated to finance specific measures; they were provided to support the environ-

mental policy in the project region in general. The programme was co-financed by the Asian Development Bank (ADB).

A pilot project in the city of Huainan aimed to set an example of improved traffic management and emissions reduction. Hardware and software from Germany were provided for the traffic steering centre. Scientific cooperation with the German Aerospace Centre (DLR) helped to efficiently introduce the new technology. The project eased the traffic situation in the city and there is evidence of a significant reduction in emissions. The project also included the introduction of bus lanes and other measures to improve the public transportation system.

One further project with significant impact on the reduction of climate relevant emissions is the provision of several hightech measurement vehicles from Germany. By analysing the emissions in the vicinity of a power plants, the burning process in the plants can be optimized. This reduces the demand for coal as well as emissions. The vehicles could be booked by the power plants. Given that they were usually overbooked, this indicates that they were quite useful. Conservative estimations indicated that this project saved more than five million tons of carbon-dioxide annually.

Urban development remained an important part of the bilateral cooperation in this period. The innovative sewage treatment plant in Kunming is one example. Due to the scarce land situation, an underground wastewater treatment plant was constructed. Also, a plant for the reuse of cleaned water was considered. The project made a major contribution to the protection of surface waters - in particular the Dianchi Lake, one of the largest freshwater reservoirs in China.

Improving biodiversity and protecting natural resources also remains on the agenda with numerous financing projects. One of several exceptional examples is "Smallholder Afforestation Gansu". On 30,000 ha forest stands and fruit tree gardens were established. Also, forest areas were closed in order to allow natural rehabilitation.

What makes this project special is the inclusion of a forest education centre in Tianshui. Intensive training courses for forest teachers in China and in Germany took place with the strong support of the forest administrations of the southern



Transporting seedlings from a nursery.

© KFW

German federal states of Bavaria and Baden Württemberg. The relevant representatives of the federal states participated in the opening ceremony in 2013. The education centre received an award from UNESCO for its exceptional concept and implementation.

Some examples from the significant portfolio of medical infrastructure projects in this period include the Guiyang Children's Hospital (Guizhou) or the Taiyuan Municipal People's Hospital (Shanxi). The financing mainly involved modern medical and laboratory equipment. Contracts were awarded only after international competitive bidding. Given that the medical German industry is quite advanced and competitive, the equipment often came from Germany.





Opening ceremony of the Forest Experience Centre and the award of the project by the UNESCO.



Guiyang Children's Hospital (Guizhou).

Another key element of the portfolio is vocational training institutions, an area in which Germany is known for its expertise. As economic standards in China increased, vocational education became increasingly important. Example projects include the Chongqing Bishan Vocational Education Centre and the Xuancheng Vocational and Technical College of Anhui.

In addition, projects aimed at protecting biodiversity and natural resources as well as urban sanitation remained strong elements of the cooperation.

The economic upswing in China continued at a high pace throughout the period. Agreements for the financing of around 135 projects were concluded and the total contractual amount amounted to around EUR 4.2 billion.

## **Closing Remarks**

The areas of focus for China-Germany financial cooperation are constantly changing in line with the development of the Chinese economy. From the industrial sector and the field of public transport, from a better response to the challenges of economic growth to a focus on areas such as air, water resources, efficient waste treatment and pollution prevention.

In recent years, the two sides have placed increasing emphasis on cooperation in the provision of global public goods. Energy saving and emission reduction, conservation of biodiversity and natural resources have become impor-

tant elements of cooperation projects, especially the latter, which are often combined with income generation for farmers, contributing positively to poverty reduction in rural areas. At the same time, these projects have increased China's forest cover. This is a relatively rare achievement globally.

The main mission of Germany and KfW is sustainable development. Germany does not only provide financial support for projects, but ensures that sustainability is also key to their success.



Discussions on China-Germany Development Cooperation in Beijing, 2023.

## **Selected Projects**

## Energy Efficiency, Climate Change and Renewable Energies

## District Heating Bayannur, Inner Mongolia

The City of Bayannur of Inner Mongolia is located in the north of China. Due to its geographical location, the city experiences harsh winters, with temperatures often below minus twenty degrees Celsius. The officially defined heating period lasts for 183 days - quite long compared to other regions in the country. Under these conditions, proper heating systems are a vital matter and a necessary social good. It is an important task for the city to provide the respective infrastructure with sufficient capacity.

As the population was growing, the demand for the expansion of the heating system and an increase of its capacity was urgent. KfW was approached in 2015 to provide financing for enlarging the district heating system. The project will focus on the Linhe District, the centre of Bayannur. Due to intense construction activities for housing, offices and public facilities, the heating area in the whole city was expected to increase. The existing system had already reached its limits, which meant that extension and rehabilitation were high priorities.

In 2015, the existing, centralized urban heating system could only serve 17.8 million square meters. The project also aimed to substitute many of these small installations and connect newly established residential areas and other buildings to an efficient heating-supply system immediately. The newly constructed infrastructure was to have the capacity for around thirteen million square meters.



Project inspection meeting.

The project included the construction of around 150 new heat exchange stations and 184 kilometres of new primary pipelines. In addition, 119 kilometres of secondary pipelines were rehabilitated. Furthermore, a geothermal plant for the generation of heat was established. A photovoltaic plant with a capacity of 1.5 MW is also part of the project; it will provide the electricity supply for the geothermal plant.

The switch to an extended centralized heating system and the use of renewable energies enabled the shutdown of nearly one hundred inefficient and decentralized coal-fired heating stations. As a result, the goal of providing Bayannur with an energy-efficient and more environmentally friendly district heating system was achieved. The volume of greenhouse gas and other harmful emissions has reduced. The population in Bayannur benefits greatly from this.

The project fits with the intention of China and Germany to reduce emissions with global relevance and to efficiently use energy resources. This also has impact on global public goods.



Pipe network installation.

## Project list

## Hohhot District Heating Project (Inner Mongolia)



Project Signing Ceremony.



Project Site Visit.

## Thermal Upgrading of Residential Buildings in Tangshan (Hebei)



Field trip for project implementation.



Engineering quality inspection.

## Wuwei District Heating (Gansu)



Project site inspections.



Base fabrication for heat plant strips.

## Central Heating Project in Tianshui (Gansu)

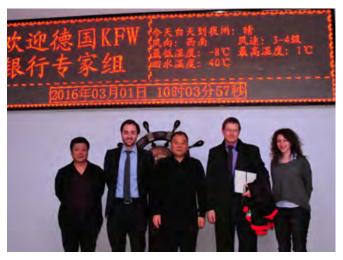


Project site inspections.



Project site inspections.

## Songyuan City Zone Central Heating Project (Jilin)



Project acceptance assessment.



8 units of 70 MW high temperature hot water boilers and auxiliary engines installed in the project.

## Sustainable Towns Development Project (Shaanxi)



Scene of flooding before construction.



After construction.

## Central Heating Supply in Licang District (Qingdao)



Heat source plant.



Heat exchange stations.

## Central Heating Project in Xujiadongshan District (Qingdao)







Heat source plant.

## Huilai Wind Park Project (Guangdong)



Installation process of German NORDEX N43/MK3 fan.



Construction diagram of German NORDEX N43/MK3 fan.

# Protection of Natural Resources, Biodiversity, Desertification

# Desertification Control and Afforestation, Ningxia

Many regions in northern China are semiarid and dry. They are endangered by growing desertification, the degradation of agricultural and forest land, and the loss of agricultural potential. The implications of climate change, an increased demand for timber and the number of farm animals has put pressure on the natural resources.

In the late seventies, the Government of China started to establish the program "Great Green Wall". By planting millions of trees, the program aims to combat desertification and protect natural resources in general. It will also reduce the intensity and frequency of sandstorms affecting large sections of the northern regions of the country. China-Germany financial cooperation has supported this initiative with a large number of projects, including one in Ningxia, established in 1994.

The project is located in the northern area of Ningxia, which often receives less than 200 mm of rain. This area is characterized by the Helan Mountains and deserts. Before the project was implemented, the plant cover decreased and erosion as well as desertification increased significantly. One of the reasons for the degradation was the growing number of farm animals. Farmers were used to feeding their animals by herding them in the wild. Since the number of animals doubled within just a few years, the pressure on the natural environment increased, especially on the steep slopes of the mountains. As natural resources degraded, this affected the income of farmers. As a result, combining ecological goals with socio-economic targets was a primary challenge for the project.



Foreign experts are in the project area for inspection.

The project fixed 8,800 ha of sand dunes, installed windbreaks and planted income-generating fruit plantations on 3,600 ha. The latter was combined in part with the fixation of sand dunes. Projects like this are always quite complex and comprise numerous components; in this case, they included the establishment of numerous forest roads (32 km), plant nurseries, small irrigation systems for 3,600 ha, forest protection stations as well as education and training centres. Another main component was to help establish a natural reserve area on 30,000 ha of the Helan Mountains. The intention is to avoid agricultural utilization and to allow natural rehabilitation.

What makes the China-Germany conservation projects special is the implementation mechanism. Land-use planning takes place in close cooperation between the rural population and the provincial administration ("Participatory Land Use Planning – PLUP"). It is obligatory that the administration issues long-term land use rights to the farmers. This allows them to take investments that they can be sure to pay off. In general, the projects promote a cooperative approach between farmers and the administration.

Farmers get paid for their planting activities – even for the planting of income-generating fruit trees on areas for which they have received land-use rights. In addition, seedlings are provided free of charge. However, funds will usually only be released on biannual basis, depending on the survival rates of the trees planted. This will come to an end after the critical

first few years. After that, the trees should survive on their own and the substantial harvest of fruits is possible. With this mechanism, farmers can receive income from the area covered with the plantations – without experiencing an income gap for the years when these areas are not available for planting of other crops. This is important, as most of the members of the target group are poor. A small amount of compensation was paid for not driving animals to the newly established natural reserve area or making use of other resources.

The results are quite promising. The green cover in the natural reserve area is significantly increased, erosion has reduced, desertification has been pushed back and biodiversity has improved. The danger from further expansion of the desert is stopped. The survival rates of the trees planted were quite satisfying and exceeded expectations. Farmers have experienced a long term increase of income, poverty and migration have reduced. The society as a whole will benefit from the increased forest cover.

The provincial government has taken exceptional action. The natural reserve approach initiated by the project was expanded to all similar regions in Ningxia. Numerous elements of the concept, e.g. methods to sand dune fixation, served as model also for other provinces. Guidelines as well as text books developed under this and similar projects were widely distributed. They found their way also into the curricula of universities. A second project of natural resource protection in Ningxia was agreed upon twenty years later.



Project participatory planning and project work sessions.

# Project list

# China-Germany Afforestation Project of Tianshui (Gansu)



The project final inspection from KfW delegation.



The project final inspection from KfW delegation.

# Watershed Management of Forest Land in Miyun District (Beijing)



 $\label{project participants} Project\ participants\ went\ to\ Germany\ for\ training\ in\ forest\ management\ techniques.$ 



On-site training and discussion.

# Sustainable Forest Management (Guizhou)









End-of-term evaluation site for the program.

Project supervision site.

# Urban Greening and Environmental Protection, Xining City (Qinghai)



Project planning workshop.



Participation of villagers in the project area in the construction of the project.

# Conservation of Wetland and Strengthening Biodiversity, Fujin (Heilongjiang)



The project carries out continuous dynamic monitoring of wetland biodiversity.



Wooden walkway in the project's constructed wetland park.

# Management and Conservation of Hengshui Lake (Hebei)



Chinese and foreign experts visit the west area of Hengshui Lake.



The project has turned Plum Island into an environmental experience and educational center.

# Sustainable Forest Management (Hubei)



 $German\ experts\ conduct\ on\text{-}site\ training\ on\ forest\ management\ techniques.$ 



Experimental Sample Plots Established According to Different Typical Stand Types.

# Ecological and Green Development of Huangshan Xin'an River (Anhui)



 $\label{lem:chinese} \textbf{Chinese} \ \text{and} \ \text{foreign} \ \text{experts} \ \text{examine} \ \text{the} \ \text{situation} \ \text{of} \ \text{enterprises} \ \text{invested} \ \text{by} \ \text{the}$ Green Development Fund.



Orangery Agricultural Pollution Control Project.

# Sustainable Forest Management, Anhui III (Anhui)



Organization of technical training courses.

# Sustainable Forest Management, Anhui I (Anhui)



Chinese and German sides sign the project appraisal meeting summary.



Chinese and foreign experts conduct on-site dialogues.

# Sustainable Forest Management, Sichuan II (Sichuan)



Discussion between Chinese and foreign experts on the project site.



Ecosystem function of Pinus massoniana forest improved by the project.

# Sustainable Forest Management in Chaoyang Municipality (Liaoning)



 $Small\ mixed\ forest\ patches\ between\ project\ stands.$ 



Replanting of sparse woodlands.

### Hunan Sustainable Forest Management (Hunan)



Technical Training in Natural Forest Management for the Project Team On-Site in Germany.



A online workshop was held between the Chinese and German sides.

# Climate-Friendly Transport Solutions

# Lanzhou Metro, Gansu - Public Urban Transport

The city of Lanzhou, the provincial capital of Gansu Province is home to some 4.4 million inhabitants. Lanzhou is experiencing a significant increase in its gross national product and, in parallel, of the income situation of the population.

Substantially higher incomes also increased the demand for transport and private cars. In the last decade, the number of cars in the city grew annually by 15 percent. The car fleet exceeded one million vehicles by 2018.

At the end of 2018, fourteen percent of the urban transport volume was served by private cars and taxis, twenty-six percent by bus and sixty percent by bike, walking or by other

means of transportation. It can be expected that further economic expansion and increasing income will enhance the number of cars. However, this expansion has its infrastructural and environmental limits.

Lanzhou is located at the banks of the Yellow River and surrounded by two mountain ranges. This restricts the enlargement of a road-based traffic system. In addition, heavy emissions of harmful pollutants from traffic can be observed, with its negative effects on the air quality. In view of the various limitations, Lanzhou intended to further develop its public transport system as an alternative to individual, motorized transport.



The Chinese and German sides signed a memorandum of understanding on the project.

According to the latest planning of Lanzhou metro transit system, the city will develop a system with five metro lines. The Line 1 was put into operation in mid-2019. In the same year, a Promotional Loan was agreed upon with KfW for the partial financing of the first phase of the Line 2. Several Chinese banks also participate in the financing of this line. The German contribution is intended to procure rolling stock, energy supply systems, signalling and communication equipment. These technologically more advanced components were supplied from abroad.

There are two phases for the construction of the Line 2, the first phase of the Line 2 will have a total length of 9.1 kilometres and will be fully constructed underground. The tunnel was drilled by a boring machine at a depth of up to sixteen meters. The line will have nine stations and will be connected to the first one by two transfer stations. Since it crosses the central city district of Chengguan, it will form the backbone for the whole system. The second phase of Line 2 is expected to be completed by 2040.

During preparation and implementation, "Lanzhou Rail Transit Company Ltd" has sought close cooperation with other operators of metro systems in big cities in China. As such big infrastructure projects are always unique and ambitious by nature, the exchange of experience is quite valuable. An environmental impact assessment and a migration plan were carried out according to national and international standards. An implementation monitoring consultant has supported the rail transit company in complying with the respective rules and regulations.

The line was put into operation in 29 June 2023. It now allows for speedy transport through the city and offers an alternative to individual - and particularly motorized - traffic solutions. Traffic jams can be avoided by using the metro. It also contributes to reducing climate-relevant and harmful emissions and, in doing so, protects the environment and climate. Furthermore, it reduces risks to the health of the population. The number of passengers for the first months of operation is in line with the expectations.



Lanzhou Urban Rail Transit Line 2 phase I project uses type-A rolling stock.



Yanbai Bridge Station of Lanzhou Urban Rail Transit Line 2 phase I project.

# Project list

# Shanghai Metro Line I & II (Shanghai)



Line 1 metro electric buses arrived in Shanghai from Hamburg, Germany.



On 28 May 1993, the southern section of Shanghai Metro Line 1 was completed for trial operation.

### Nanchang Metro Line (Jiangxi)

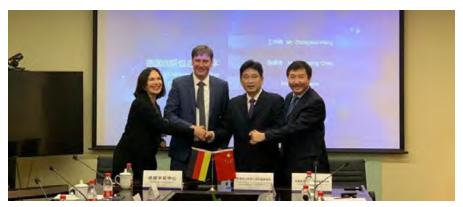


Project signing ceremony.



Nanchang Metro Line 2 rear section realize the whole line track through.

# Huainan Intelligent Transport System (ITS) Project (Anhui)



Project signing ceremony.

# Tianjin-Beijing-Daxing Rail Line (Tianjin)



China Railway's self-developed contact wire assembly vehicle with constant voltage.



Intelligent Dispatch Centre.

# Guangzhou Metro Line I (Guangdong)



Lifting of Huangsha Shield Machine for Guangzhou Metro Line 1.



Opening ceremony of Guangzhou Metro Line 1 in 1999.



First day of operation of Guangzhou Metro Line 1 in 2000.

# Public Health and Medical Infrastructure

# Luoyang No.1 Hospital of Traditional Chinese Medicine (TCM), Henan

Provision of adequate infrastructure for the growing number of inhabitants is a constant challenge. The capacity of the healthcare system also has to adjust and cope with the changing health patterns.

The support for the Luoyang No.1 Hospital will address both these aspects. The facility is a public general hospital with a capacity of around 650 beds and is split into two locations, i.e. a North and South Hospital. Both are located close to the city centre with a distance of around three kilometres between them. The building for the South Hospital was already quite old and in bad condition.

The technical diagnostic and treatment capacities in both locations were limited and required improvement. In general, the hospital could not cope with the increasing demand for medical services. This is evidenced by a very high occupancy rate of the beds for inpatients, which exceeded 95 percent – more or less the technical maximum.

The hospital is also important for other reasons. It provides services in conventional medicine but also in traditional Chinese medicine. Both treatment chains are interlinked and there is close cooperation between the respective departments. Furthermore, the facility is a teaching hospital and a partner of the Henan University of Chinese Medicine. For this purpose, it provides more than seven hundred training places for medical and for nursing staff in TCM as well as conventional medicine.

The project was agreed upon in 2017. The main components are the construction of new buildings and the provision and installation of medical equipment. Furthermore, advanced non-medical equipment was required, for example special air conditioning systems for operating rooms. Training and service components were also part of the financing package, especially for the new high-tech equipment.



The Chinese and German sides signed a memoran-dum of understanding on the project.

The project implementation went well. With around one thousand additional beds, the capacity for in-house patients more than doubled. The diagnostic and treatment facilities are enlarged and improved, now at an advanced level.

All in all, the hospital now can better serve the population in its vicinity. The number of inpatients per year has doubled to around 30,000 and the number of outpatients increased by thirty percent, to around 800,000. The hospital can also better cope with the changing health pattern due to demographic change and increasing diseases of civilization. Its role as a teaching hospital is strengthened. The population in Luoyang will benefit from these improvements.



Project Completion Assessment.



Exterior view of the hospital.

# Project list

# Guiyang Children's Hospital (Guizhou)



Project signing ceremony.



Project field assessment visits.

# Taiyuan People's Hospital (Shanxi)



Project kick-off meeting.



Progress visit by the project assessment mission.

# Medical Care and Service Project for Elderly People, Taiyuan (Shanxi)



The Chinese and German sides signed a memorandum of understanding on the project.

# Modernisation of Affiliated Hospital of Hainan Medical University (Hainan)



Project groundbreaking ceremony.



Exterior view of the new expanded hospital.

# Baise TCM Hospital (Guangxi)



Exterior of the hospital inpatient building.



Electric hospital beds purchased for the project.

# Upgrading Hegang No.3 People's Hospital (Heilongjiang)



The Chinese and German sides signed a memorandum of understanding on project evaluation.



The project was launched with a groundbreaking ceremony.

# Rural Health Programme III, Qitaihe Traditional Medicine Hospital (Heilongjiang)







Nuclear magnetic and CT equipment purchased for the project.

# Affiliated Hospital of Chengde Medical University (Hebei)



The Chinese and German sides inspected the construction of the project on  $% \left\{ \mathbf{r}_{1}^{\mathbf{r}}\right\} =\mathbf{r}_{2}^{\mathbf{r}}$ the spot.



The Chinese and German sides signed a memorandum of understanding on the project.

# Provision of Advanced Medical Equipment for Hebei Eye Hospital (Hebei)



Project evaluation site.

# Upgrading No.4 Hospital in Shijiazhuang (Hebei)



The medical staff examined the patients using the nuclear magnetic equipment purchased with a loan.

# Modernization of Qingyang No.3 People's Hospital (Gansu)



The new hospital building.

# Support for the Eighth People's Hospital in Ganzhou (Jiangxi)



The Chinese and German sides inspect the construction progress of the project.



Project completion assessment kick-off meeting.

# Health Programme Western Provinces – Upgrading Centres for Disease Control (Sichuan)



Chinese and German experts conduct a site visit at the Centres for Disease Control.

# Upgrading Ziyang No.2 People's Hospital (Sichuan)



Project return visit.

# Modern Infrastructure for Ziyang People's Hospital (Sichuan)



Project acceptance meeting.



Internal medicine inpatient building

# Advanced Medical Equipment for Mianyang 404 Hospital (Sichuan)



Electronic ultrasound gastroscope procured for the project.

# Liaoning Cancer Hospital Project (Liaoning)



Project Evaluation Meeting.



Linear accelerators procured for projects.

# Urban Sanitation, Water Supply

# Kunming Economic Technology Development Zone Environment Comprehensive Treatment Project, Yunnan

Kunming is the capital of Yunnan Province in Southwest China. Similar to many Chinese cities, Kunming is facing the challenges of rapid urbanization. The infrastructure has not grown at the same pace as the economy. Due to the arid climate, water scarcity is of special concern in the region. The cleaning of wastewater and its reuse can help to keep water resources clean and ease the bottleneck of the limited water resources.

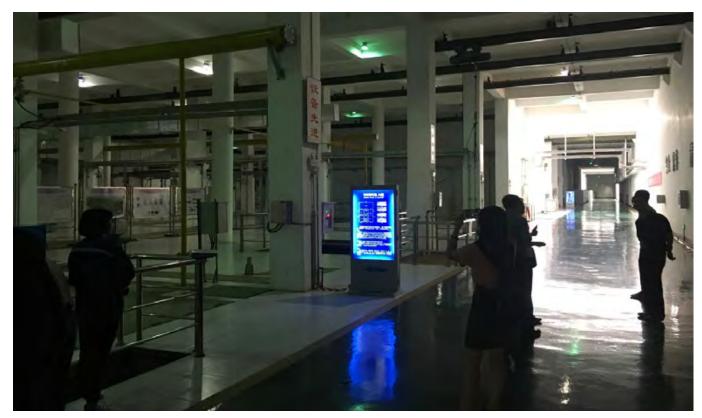
Kunming is also facing the challenge that the areas necessary for providing adequate infrastructure facilities are scarce. Due

to this, the city made the decision to construct future wastewater treatment plants (WWTP) as underground plants in their respective catchment areas. The area above then is available for urban development, in the case of this first plant as a recreation park.

Addressing the drought situation in the region, the project also aims to increase the level of water recycling in Kunming. To achieve this, the project concept includes a reclaimed water distribution network for the existing Nijiaying-WWTP and the construction of a new wastewater reclamation plant.



Outflow of reclaimed water for reuse



Underground technical installation

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### In detail, the project comprises:

- · Construction of the Puzhao Underground-WWTP with a capacity of 50,000 qm per day including a water reclamation plant with a capacity of 40,000 qm per day,
- Construction of 113 km of reclaimed water distribution network and a wastewater reclamation plant at an already existing WWTP,
- River engineering measures on 18 km, and
- · Construction of 98 km of sewers.

Quickly after commissioning, the Puzhao plant reached its design capacity. It complies with the highest national treatment standards, which exceed even the respective German or European standards. In this way, the project contributes to the protection of the surface water and in particular Dianchi Lake by collecting and treating the wastewater within the catchment area.

Furthermore, the project provides the infrastructure for increasing the level of water recycling. The reclaimed water is used mainly for urban green areas and potentially for industrial purposes. Its utilization contributes to the conservation of water as a limited resource. Also, the urban landscape has improved, as a recreation park was built on top of the plant.

# Project list

# Green Urban Financing and Innovation Project (Shanghai)



Midterm project adjustment meetings and project inspections.



Yangshupu Water Treatment Plant Deep Treatment Renovation Project.

### Yangzhou Tangwang Waste Water Treatment Plant (WWTP) Phase III (Jiangsu)



Tangwang III Phase I and II upgrading project was opened to water.



Aerial view of Yangzhou Tangwang Wastewater Treatment Plant.

# Beijing Nangong Waste Incineration Plant (Beijing)



Staff monitoring the operation status of the incineration line in the central control room.

# Baotou Urban Drinking Water Project (Inner Mongolia)



Project evaluation meeting.

# Nanning Langdong Wastewater Treatment Plant (Guangxi)



The Chinese and German sides signed the minutes of the project evaluation meeting.

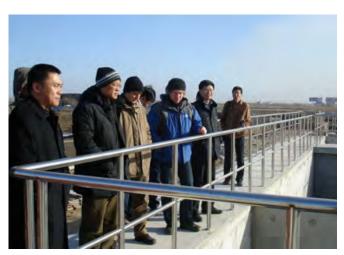


Improved SBR tank operation diagram.

# Wastewater Treatment Plant Jiamusi City (Heilongjiang)



Aerial view of sewage treatment plant.



Project site visit.

# Yanglan Lake Environmental Improvement Project (Hubei)



Project site visit.



East Yanglan Lake Wetland Park Phase I.

# Reuse of Recycled Water Changchun (Jilin)



Chinese and German experts carry out checking and inspection of the installed equipment.



On-site inspection and sampling of the outlet by Chinese and German experts.

# Wastewater Treatment Plant and Sewer System, Tonghua (Jilin)



Dredger equipment purchased for the project.



Project constructed biochemical tanks.

# Municipal Sewage Treatment Programme III (Shandong)



Signing ceremony for the contract for the supply of engineering equipment.



Panoramic view of the expansion project.

# Upgrading of Yantai Sewage Treatment Plant (Shandong)



Upgrading of high-efficiency sedimentation tanks.

# Liuwei Wastewater Treatment Plant, Yangzhou (Jiangsu)



Overhead view of the wastewater treatment plant phase II project.



German experts on-site guidance.

# Suining Municipal Infrastructure Project (Sichuan)



Aerial view of Longyanjing Wastewater Treatment Plant in Anju District.



Qiongjiang Wetland Park.

# Flood Control, Water Reclamation, Environmental Improvement at Pu'er (Yunnan)



Panoramic view of Pu'er city center river environment comprehensive improvement project.



Successful outcome of the project implementation.

# Comprehensive Environment Improvement and Risk Disaster Management (Hunan)



Water intake points of the project for the integration of safe urban and rural water supply.



China and Germany hold online working meeting.

# **Vocational Education**

# Guangxi Modern Technical and Vocational Education Training (TVET) Development Demonstration Programme

In China, economic development, higher standards and advanced technology have increased the need for trained workers. This includes not only academic education, but also vocational training. Qualified workers are decisive to the further economic expansion. In addition, better qualifications enable individuals to achieve higher incomes and a better life.

Guangxi has decided to strengthen vocational education, and planned to use Promotional Loan given German has strong system of vocational education and a global reputation in the area. Numerous TVET-projects have been supported by China-Germany financial cooperation.

The programme was financed in 2017 with the modality of a "result-based lending". This supports the provincial programme as a whole instead of individual projects. Disbursements by KfW will only be made after certain milestones or performance indicators have been achieved (disbursement-linked indicators). The disbursements honour the achievements of the provincial programme. The programme is co-financed with the same financing modality by the Asian Development Bank.

The main components of the programme followed the priorities of the five-year plan for vocational education of Guangxi.

They are as follows:

- I. Improvement of the infrastructure for vocational training, of the teaching and learning conditions and of teachers training;
- Increase in quality of standards of vocational education and teaching competences, e.g. through the provision of modern information and communication technology;
- III. Strengthening of regional integration with a focus on the ASEAN region;
- IV. Promotion of the cooperation between industry and vocational schools, i.e. the relevance of the training for the labour market.

The aim in general is to develop the vocational system in Guangxi into a practice-oriented and modern one.

The programme was successfully completed. More than one hundred higher vocational training institutions and universities comply with advanced standards. More than one million students already benefit from the improvements. The conditions for further economic expansion in Guangxi are improved and many students will earn higher incomes.



Chinese and German experts carry out project inspections.

# Project list

# Engineering Training Centre at Guizhou (Guizhou)

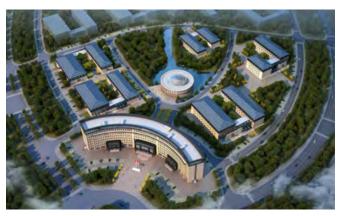


Interior Scene of the Training Complex Building.



Immersive Live Remote Interactive Classroom.

# Baotou Training Base for High-skilled Students (Inner Mongolia)



Overhead view of project planning.

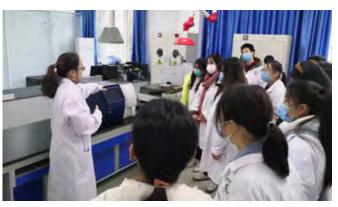


Project site evaluation.

# Xinyang College for Agricultural and Forestry (Henan)



China and Germany sign a memorandum of understanding on project evaluation.



Near-infrared grain analyzer purchased for the project.

# Modernisation of Qitaihe Technical College (Heilongjiang)



Training bases and purchased equipments.



The College conducts lectures at the training base with the purchased equipment.

# Harbin Vocational and Technical College (Heilongjiang)



 $Chinese\ and\ German\ experts'\ on\ -site\ inspection\ of\ the\ construction\ work\ in\ progress.$ 

# Upgrading of Dongying Technical College (Shandong)



Computerized numerical control lathes procured for the project.



CNC machining centers procured for the project.

# Weifang Vocational College (Shandong)



Chinese and German experts visit the school's modern logistics training base.



China and Germany sign the project memorandum.

### Shandong Polytechnic Vocational College (Shandong)



Signing of project memorandum between Chinese and German side.



Rooftop photovoltaic power station training base.

# Weinan Vocational and Technical College (Shaanxi)



Library building.



Digital medical X-ray camera system purchased for the project.

# Chengcheng County Vocational Education Centre (Shaanxi)



Project implementation evaluation meeting.



Training equipments procured for the project.

# Baoshan TCM College (Yunnan)

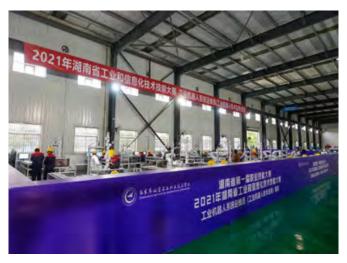


New School Campus.



School Comprehensive Laboratory Building.

# Provision of Teaching Equipment and Specialised Training Facilities, Zhangjiajie (Hunan)



Industrial Robot System Operation and Maintenance Competition.



Project Signing Ceremony.

# Equipment for Vocational Training Institutions (Guangdong)



Training equipments purchased for the project.



Guangdong E-commerce Technician College Project Building Appearance.

# 05

# Dialogue Fora



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Over the last decade, a series of international conferences accompanied Financial Cooperation between China and Germany. Co-hosted by the Ministry of Finance of the People's Republic of China and the German Federal Ministry for Economic Cooperation and Development (BMZ), and organised by KfW, the Forum brought together around 200 key Chinese and German policymakers and practitioners, as well as experts in the fields of science, business, and administration. The Forum presented a platform for dialogue and to exchange knowledge on topics relevant to the portfolio of China-Germany Financial Cooperation. These conferences also explored financing options for planned projects and

opportunities for further cooperation between China and Germany, situating topics of in the broader international context of contributing to the implementation of internationally agreed targets and goals.

Events such as these Dialogue Fora were an important part of KfW's promotion and development mandate and proved to be an important format complementing KfW's financing and advisory tasks. They provided a platform that helped promoting and shaping dialogue between policymakers of the two countries, as well as exchanging knowledge between experts in crucial sectors of economic and sustainable development.

## Overview of Past Dialogue Fora

### "Water Scarcity and Urbanisation in China: Challenges and Possible Solutions" (2012)

China-Germany Financial Cooperation supported building numerous modern wastewater treatment plants in China and operating them. The realisation of these infrastructure projects was accompanied by an intensive exchange of experience during the China-Germany Dialogue forum on "Water Scarcity and Urbanisation in China - Challenges and Possible Solutions", which took place in Beijing in March 2012.

Experts and representatives of highranking institutions from both countries discussed challenges and successes in the water sector, focusing particularly on water technology and water resource management. The Dialogue Forum showed that sustainable water resource management and the use of modern technologies for the treatment of water resources is an important prerequisite for sustainable development in China.



 $\hbox{``Water Scarcity and Urbanisation in China: Challenges and Possible Solutions'' (2012)}.$ 

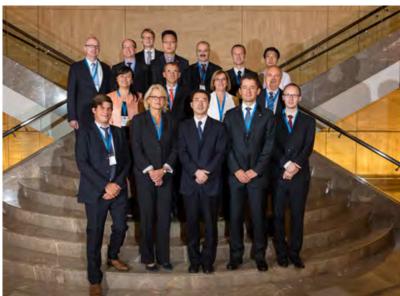
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### "China-Germany Dialogue Forum on Health System: Hospital Development and Medical Technology" (2013)



China's healthcare sector has developed at a phenomenal pace, with many impressive results. While much has been achieved, multiple challenges in developing the country's sustainable health system still lie ahead, including improving the accessibility, quality and efficiency of healthcare. In this process, China-Germany cooperation has proven to make a valuable contribution in the areas of financing, international expertise and state-of-the-art technology. The conference provided participants with an opportunity to share their experiences and perspectives on current sector trends, as well as to discuss innovative solutions and opportunities to enhance China's healthcare system. There was a general consensus that deepening China-Germany cooperation is highly desirable to support China's efforts in healthcare system adaptation, alongside the opportunities presented to German companies in this dynamic sector.





"China-Germany Dialogue Forum on Health System: Hospital Development and Medical Technology" (2013)

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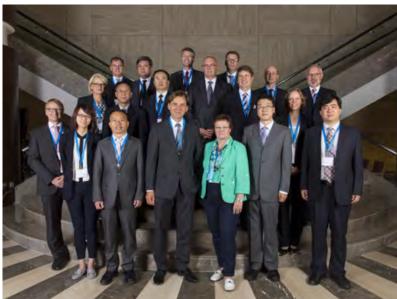
### "China-Germany Dialogue Forum on Vocational Education and Employment" (2014)



Major themes of the conference included opportunities and challenges of demand-driven and labour-market oriented education, such as public-private-partnership approaches and different forms of cooperation between educational institutions and the private sector.

The conference further explored financing options for vocational education, expanding on Chinese and German best practice examples. There was a general consensus that deepening China-Germany cooperation is highly desirable in that it will support the reform of the Chinese vocational education system.





"China-Germany Dialogue Forum on Vocational Education and Employment" (2014)

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### "China-Germany Dialogue Forum on Sustainable Urban Development: Infrastructure Solutions in Key Urban Sectors" (2015)



Major themes of this conference included the opportunities and challenges associated with sustainable urban development, public transportation, wastewater and solid waste management in cities.

Furthermore, the conference explored financing options for sustainable urban infrastructure, reflecting on examples of Chinese and German best practice and detailed case studies. Based on these discussions, the conference further examined the possibilities for intensifying, enhancing, and expanding China-Germany cooperation and provided opportunities to situate China-Germany cooperation on sustainable urban development in the broader international context.





"China-Germany Dialogue Forum on Sustainable Urban Development: © KFW – James Wasserman Infrastructure Solutions in Key Urban Sectors" (2015)

### "China-Germany Dialogue Forum on Clean Air: Challenges, Opportunities and Solutions" (2016)



Climate and environmental protection have become core topics of the strategic China-Germany relationship.

The conference provided an in-depth examination of the drivers and impacts of air pollution, and explored options in other sectors for improving air quality, such as forestry, energy and financing. The Forum also provided an opportunity for Chinese and German policymakers to identify priority areas to push the issue of clean air and GHG mitigation in the future and discuss opportunities for stimulating the involvement of the private sector and the general public.





"China-Germany Dialogue Forum on Clean Air: Challenges, Opportunities and Solutions" (2016) © KFW – Adam Dean

### "China-Germany Dialogue Forum on Environment and Climate Change: Exploring Solutions in Urban Solid Waste Management" (2018)



The conference provided an in-depth examination of the challenges and opportunities of using waste as a resource. In addition, it explored options for leveraging the role of the private sector and discussed technology cooperation between China and Germany.

Reflecting on these discussions, the Forum also provided a platform to discuss models of technology cooperation for recycling and waste-to-energy solutions. The Forum helped to identify common priority areas in solid waste management and to explore potentials for strengthening China-Germany cooperation in this field.





"China-Germany Dialogue Forum on Environment and Climate Change: Exploring Solutions in Urban Solid Waste Management" (2018)

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### "China-Germany Dialogue Forum on Biodiversity and Climate Change: Natural Resource Management and Finance" (2019)



This China-Germany Dialogue Forum contributed to discussions on biodiversity in the run up to COP15. The conference provided an in-depth discussion on the challenges associated with biodiversity loss and climate change as well as synergies in tackling both issues jointly.

In addition, the Forum put special emphasis on the role of the private sector by providing two business cases for biodiversity and climate protection. The Forum explored options for leveraging biodiversity financing and provided a platform for China and Germany to present their perspectives on COP15.





"China-Germany Dialogue Forum on Biodiversity and Climate Change: Natural Resource Management and Finance" (2019)

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# 06

# **Knowledge Transfer** and Training

## **Knowledge Transfer and Training**

Nearly all projects financed under China-Germany financial cooperation include components of technical support. Often, specialized consultants are contracted to assist the implementing agencies during the construction or installation period. The same applies when supporting operation and maintenance during the initial phase. This kind of assistance strongly focusses on technical aspects and helps to disseminate standards of advanced technology. In addition, several formats were introduced for more general aspects of China-Germany financial cooperation.

One format is the Dialogue Forum, for which a detailed overview is presented in a separate chapter in this documentation. Chinese and German experts in science, business and administration met annually for a conference to share experiences and knowledge. The fora always cover a sector with special relevance for financial cooperation. The Chinese Ministry of Finance and the German Ministry for Economic Cooperation and Development were co-hosts. KfW was responsible for the implementation, supported by a specialized conference consultant.

On the subsequent day of many Dialogue Fora, KfW usually organized a "Procurement Workshop". Up to one hundred participants took part, either from ongoing projects or from projects in preparation. For the seminars, KfW experts on procurement travelled to Beijing and presented the rules and regulations for the awarding of contracts as well as the tender procedure in general. Several hours were usually reserved also for bilateral talks on pending issues with specific projects.

With the new millennium, several delegations from the Chinese side have travelled to Germany for exchange with KfW on finan-



One example out of many where KfW brought in its expertise in national conferences, here with Mrs. Lassmann, Director KfW Office.

cial cooperation. The two-week training sessions for usually up to twenty guests from China were held bi-annually, mainly at the premises of KfW in Frankfurt. The training concentrated on more than thirty sessions on the general aspects of German financial cooperation, but especially on the numerous aspects of the appraisal of a project. In addition, a visit to the BMZ was integrated into the programme. Participants often visited a waste incineration plant and a waste water treatment plant in Frankfurt as prominent examples for urban development projects.

From time to time, the Ministry of Finance has organized national conferences on financial cooperation, for example several years ago in Xi'an. KfW was always prepared to participate actively in such conferences and introduce its products and procedures. The same applies for conferences, e.g. initiated by the World Bank, the ADB or the AIIB.



Opening session of a two-week training session at KfW in Frankfurt

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## Concluding Remarks by KFW



Head Office of KfW Group. © KFW

KfW has implemented Financial Cooperation between China and Germany for forty years on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). During this time, more than 300 projects have been supported with funds from Germany amounting to a total financing volume of about ten billion Euro. For each Financing Cooperation project, KfW receives a mandate of BMZ to sign the financial agreement with the Ministry of Finance of the People's Republic of China.

The funds provided since the mid-eighties originated from the federal budget and from own sources of KfW, obtained on capital markets. "Promotional Loans" dominated the resent years of cooperation. KfW is proud of having substantially contributed to this bilateral cooperation and on the achievements of the joint efforts to promote development.

German Financial Cooperation is implemented by KfW Development Bank worldwide, as one of the business sectors of KfW Bankengruppe. KfW was founded in 1948 and is one of the world's leading promotional banks owned by the Federal Government (80%) and federal states (20%). KfW is committed to improve economic, social and ecological living conditions in Germany and all over the world on behalf of the Federal Republic of Germany. To do this, it supplied funds totalling EUR 111.3 billion in 2023.

KfW has no retail branches and does not hold any customer deposits. It funds its promotional business responsibly and largely via the international capital markets. In 2023, it raised EUR 90.2 billion for this purpose. In Germany, KfW Group has offices in Frankfurt am Main, Berlin, Bonn and Cologne. The global network of the group includes around 80 local and representative offices. One of the very first ones was opened in Beijing.

